

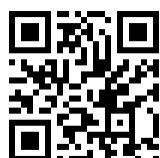
Farm certification schemes for sustainable agriculture

State of play and overview in the EU
and in key global producing countries,
concepts and methods

Volume 2 - annexes 5 to 9



Agriculture and Rural Development



RESEARCH FOR AGRI COMMITTEE

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Abstract

This study presents the concepts and methods of farm certification schemes and provides information on the main existing schemes in the EU and in third countries. It analyses how these schemes can help the EU reach its sustainability objectives in the farming sector and be instrumental in the implementation and monitoring of the related CAP instruments during the upcoming programming period.

This document was requested by the European Parliament's Committee on Agriculture and Rural Development.

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ANNEX 5 - GENERAL INFORMATION FOR EACH OF THE 15 CERTIFICATION SCHEMES SELECTED


Haute Valeur Environnementale (HVE) – Voie A

Items	Details
Name of the standard	Haute Valeur Environnementale (HVE) - voie A
Name of the standard setter	French Ministry of Agriculture
Logo	
Logo on the final product	Yes
Type of the standard setter	Public
Country of the standard setter	France
Year of establishment	2011/2012
Context	<p>The High Environmental Value (HVE) is a voluntary farm certification, corresponding to the third and highest level of “environmental certification” for farms. It is open to all sectors and built around four environmental issues: protection of biodiversity, reduction of phytosanitary products, fertilisation management and water resource management. HVE is based on requirements to achieve results measured by environmental performance indicators. To obtain certification, 2 “paths” are possible: voie A or voie B. Only voie A will be covered in the subsequent analysis, as it is the most implemented and voie B is expected to be deleted. Under voie A, producers must reach at least 10 points in each of the 4 main indicators, through a choice of different possible criterias.</p> <p>When established in 2011/2012, its purpose was to promote environmentally friendly practices through an alternative framework to organic farming, which was then the only officially recognised system. Until 2017, its uptake was very limited. Since then, clear political support contributed to revive the scheme, stating it as a governmental instrument for the agroecological transition.</p>
BtoB or BtoC	BtoC
Geographical coverage	National
Sectoral coverage	Wine, fruits and vegetables, crops, horticulture and other plant products, livestock. 77% of certified farms are wineries (in July 2021).
Method certif., control, monitoring	Initial technical assessment on-farm by a State accredited certification body. The certificate delivered is valid for 3 years. Certified producers must pass a mid-term control, and a renewal control.
Focus of the certification	Farming and processing
Economic importance / Uptake	<p>As of July 1, 2021, 19 216 farms are certified “High Environmental Value”, and the scheme uptake demonstrates a rapid growth. Within one year, the number of certified farms has doubled. Wineries represent 77% of them, while arable crops represent 10%.</p> <p>86% of farms certified on July 1, 2021 entered the High Environmental Value by way A.</p>


Integrowana Produkcja

	Details
Name of the standard	Integrowana Produkcja
Name of the standard setter	Polish Ministry of Agriculture and Rural Development / State Plant Health and Seed Inspection Service (PIORIN)
Logo	
Logo on the final product	Yes
Type of the standard setter	Public
Country of the standard setter	Poland
Year of establishment	1991
Context	<p>The IP system is a voluntary food quality system based on IPM: it uses sustainable technical and biological progress in cultivation, plant protection and fertilization. The IP covers horticultural, vegetable and agricultural crops. It takes into account the expectations of recipients in relation to high quality products and human health, as a method of growing plants that pursues the sustainable use of pesticides and guarantees food safety.</p> <p>The implementation of integrated plant production system began in Poland in 1991, under the initiative of the Research Institute of Pomology and Floriculture in Skierniewice who made apple producers interested in this system. From 1991 to 2004, supervision over producers and certification were carried out by scientific institutes. In January 1991, the Institute of Pomology and Floriculture in Skierniewice published the first Guidelines.</p> <p>In the years 2004 -2013, direct supervision over IP was carried out by the State Plant Health and Seed Inspection Service.</p> <p>Since 2014, IP certification is carried out by certification bodies authorized by the voivodeship inspectors of the Plant Health and Seed Inspection Service.</p>
BtoB or BtoC	BtoC
Geographical coverage	National
Sectoral coverage	Fruits, vegetables, crops and horticultural products
Method cert., control, monitoring	<p>Annual inspection of producers engaged in the IP system by accredited certification bodies. The certificate confirming the use of integrated crop production is issued for the period necessary to sell the plants, but not longer than 12 months.</p> <p>As part of these controls, plant samples are collected in min. 20% of IP farms for the testing of exceeded levels of plant protection residues and levels of nitrates, nitrites and heavy metals.</p>
Focus of the certification	Farm level
Economic importance / Uptake	<p>In 2020, certification bodies issued 3027 IP certificates for producers. A total production of 595 269 tonnes of agricultural products was certified. Apples are the dominant species for which certification is granted. In 2020, 1 817 certificates were issued to apple producers and certification was granted for 523 632 tons of apples.</p>


IP Sigill-certifierad and Svenskt Sigill-märke

Items	Details
Name of the standard	IP SIGILL
Name of the standard setter	
Logo	
Logo on the final product	Yes
Type of the standard setter	Sigill Kvalitetssystem
Country of the standard setter	Sweden
Year of establishment	2002
Context	<p>IP Sigill has been established in order to promote nordic products and especially swedish agrifood and aquaculture products which comply with higher requirements. IP Sigill standards have been gradually reinforced in order to guarantee sustainable practices in the areas of food safety, animal care, environmental responsibility and fair working conditions.</p> <p>The rules of the IP standard come in three tiers with an increasing degree of ambition. It is based on the ISO 17067 standard and accredited by Swedac (Swedish Accreditation Authority).</p>
BtoB or BtoC	BtoC
Geographical coverage	Sweden and Finland
Sectoral coverage	Fruits and vegetables, combinable crops, livestock (including cattle, lamb, pig, broilers and laying hens), flowers and ornamental production, seafood products, honey production
Method cert., control, monitoring	Annual control by certification body on site (one audit very 2 years) and remotely (one control every 2 years)
Focus of the certification	Farm level
Economic importance / Uptake	<p>4 000 customers among which 3 500 farmers and 500 processing companies</p> <p>50% of the vegetable, fruits and berries sold in Sweden are covered by IP SIGILL</p> <p>The coverage of IP SIGILL among other productions is under 10%.</p>

Leaf marque


Items	Details
Name of the standard	LEAF Linking Environment and Farming
Name of the standard setter	LEAF Marque Ltd
Logo	
Logo on the final product	Yes
Type of the standard setter	Private
Country of the standard setter	United Kingdom
Year of establishment	2002
Context	The creation of Leaf began in early 1990's in a context of raising concerns regarding the impacts of agriculture on environment and health (creation of first GMO, bovine spongiform disease, foot and mouth disease...). The objectives were the following: To promote and develop more sustainable methods of farming To raise public awareness of what farmers do to protect and enhance the environment
BtoB or BtoC	BtoC
Geographical coverage	Mainly England and Spain, Italy, France, Egypt
Sectoral coverage	Fruits and vegetables, combinable crops, livestock, flowers and ornamental production,
Method certif., control, monitoring	Annual control by private certification body on site
Focus of the certification	Farm level
Economic importance / Uptake	900 farms (50% in the UK) 299.185 ha covered Main productions are fruits and vegetables (45% of the F&V sold in the UK are covered by LEAF MARK).

Sistema di Qualità Nazionale di Produzione Integrata per le Produzioni Agricole (SQNPI)

Items	Details
Name of the standard	Sistema di Qualità Nazionale di Produzione Integrata per le Produzioni Agricole (SQNPI)
Name of the standard setter	Ministry of Agricultural, Food and Forestry Policies
Logo	
Logo on the final product	Yes
Type of the standard setter	Public
Country of the standard setter	Italy
Year of establishment	2011
Context	<p>SQNPI is a quality management system established by law 4 of 2011 which verifies the production process conformity to the agricultural sustainable standard.</p> <p>Its standard is divided into two parts:</p> <ul style="list-style-type: none"> - the first is applied in the field and is called IP integrated production. It includes good agronomic practices and the most adequate defense strategies against adversities; - the second applies at all levels, incl. the conditioning or processing phase of agricultural products, and envisages ethical, social and environmental criteria. Only the second level allows to have the complete conformity certification and the possibility to use the mark on compliant productions. <p>Every year, the technical scientific body updates the standard by introducing scientific or technical innovations. The Integrated Production (IP) methodology is organised in a national guideline and Regional disciplinarys adapting the national guideline to the specific soil and climatic conditions of each region.</p>
BtoB or BtoC	BtoC
Geographical coverage	National
Sectoral coverage	Crops, fruits and vegetables
Method certif., control, monitoring	<p>The conformity of the production process is verified by control bodies (ODC) accredited according to the ISO 17065 standard, by the competent national body called "ACCREDIA". The control body issues the certification of conformity, and makes it possible to distinguish the products obtained with the "SQNPI - sustainable quality" mark. ICEA carries out the compliance audits required by the regional integrated production control plans.</p> <p>The control plan consists of:</p> <ul style="list-style-type: none"> - the annual verification of company and production process conformity on 100% of the farms; this verification must cover all the crops for which adhesion to the SQNPI has been requested. - multiresidual analysis on 100% of the farms applying for the mark and to be carried out on a sample of product or other matrix, of one of the crops for which the adhesion to the SQNPI has been requested; - further multi-residual analysis on at least 5% of the farms that have already undergone the control.
Focus of the certification	Farming, conditioning and processing
Economic importance / Uptake	In 2020, more than 17 000 farms and 287 000 ha were engaged in the SQNPI, including 380 farms and 14 000 ha certified with the ability to use

	the SQNPI mark. SQNPI certified farms hence represent 0,03% of national farms and 0,06% of national UAA.
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Beter Leven

Items	Details
Name of the standard	Beter Leven / Better Life
Name of the standard setter	Nederlandse Dierenbescherming (Dutch Society for the Protection of Animals)
Logo	
Logo on the final product	Yes
Type of the standard setter	Private
Country of the standard setter	NL
Year of establishment	2007
Context	<p>In 2006/2007, the Nederlandse Dierenbescherming, an NGO cooperating with the meat sector and government to improve animal welfare, identified that there was need for a label in supermarkets, as only a small share of the products was guaranteeing AW improvements (through organic certification). They developed a pilot label for broilers, based on the recommendation of animal scientists working in their organisation. As the experience was successful, they broadened the system to other animal categories and designed 3 levels of improvement:</p> <p>1 star level: improvement above animal legislation on the most serious animal welfare problems (enrichment, no castration, slower growing breeds).</p> <p>2 stars level: improvement above animal legislation on a broader scope of conditions (for instance, minimum outdoor access, no tail-docking)</p> <p>3 stars level: animal welfare conditions comparable to the organic standard</p> <p>Farmers get extra prices from supply chains for complying with BL, although the price difference of 1-star products is small. Starting from 2023, supermarkets have voluntarily committed to sell exclusively broiler meat that is at minimum certified 1-star BL.</p> <p>A separate entity (NGO) is now tasked with Beter Leven standard-setting.</p>
BtoB or BtoC	BtoC
Geographical coverage	National
Sectoral coverage	Livestock (cattle, pigs, poultry, rabbits)
Method certif., control, monitoring	<p>The inspections are carried out by independent certification bodies (CBs), all accredited according to ISO 17065 by the Dutch Accreditation Council. Almost all types of companies receive an annual check, the participant can choose which COI is used.</p> <p>After passing the assessment by the CB, the participant will receive a certificate for one year. In the meantime, additional unannounced or reimbursement checks may be carried out.</p>
Focus of the certification	Farming, slaughtering, conditioning/packaging, processing/food service, logistic service providing, retail
Economic importance / Uptake	<p>About 2.000 farms and 600 processors involved. (slaughterhouses, butcheries, specific retailers)</p> <p>Total market turnover: about 90% of market share in the pig sector and 80% for eggs (at retail stage)</p> <p>Fresh 1-star Broiler meat represents 20% of the market</p>


	<p>By 2023: all broilen-meat in supermarkets will be at minimum certified 1 star with Beter Leven</p> <p>2020: 2,5 billion euros in the retail market.</p> <p>100% of all pigs in the Netherlands are kept on the level of Beter Level in order to meet the request of the retail sector.</p>
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Initiative Tierwohl "Haltungsform labelling scheme"

	Details
Name of the standard	Initiative Tierwohl
Name of the standard setter	Gesellschaft zur Förderung des Tierwohls in der Nutztierhaltung mbH
Logo	
Logo on the final product	Yes
Type of the standard setter	Private
Country of the standard setter	Germany
Year of establishment	2015
Context	The Initiative Tierwohl is an independent multi-stakeholder platform founded in 2014/15, gathering partners in agriculture, the meat industry, food trade and gastronomy. It is now the main Animal Welfare system in Germany, involving nearly all of the German retail sector. The initiative started with pigs and poultry, aiming at providing financial compensation for farmers to implement measures for the welfare of their livestock that go beyond legal standards. It is only recently (2018 for poultry, 2021 for pigs) that the IT seal guarantees strict compliance with AW requirements set by the Initiative. All participating farmers must also be QS certified.
BtoB or BtoC	BtoB and BtoC
Geographical coverage	Germany, Italy, the Netherlands
Sectoral coverage	Livestock (pigs and poultry). Cattle will be covered starting from 2022
Method cert., control, monitoring	Each farm that participates in the Initiative Tierwohl is inspected twice a year during its 3 years term commitment by independent certification bodies – once during a regular audit and once in a completely unannounced audit (shed inspection). 83 auditors work for the initiative. The sanctions committee has been appointed as an independent, neutral body of the Initiative Tierwohl. If the participants of the Initiative Tierwohl fail to meet their contractual obligations, it's the committee's task to inspect the measures and impose sanctions. The sanctions committee has four members and the chairman is a former judge. There are also independent experts from the pig and poultry farming industries on the committee.
Focus of the certification	Farm level
Economic importance / Uptake	647 million animals each year are involved in the the Animal Welfare Initiative (7% pigs and 93% chicken). 10 200 participating farms and agricultural businesses, including 7 460 pig fattening farms and 2 128 chicken fattening farms. Market share of the animals reared under the Initiative Tierwohl: 80% of chickens and turkeys and 34% of pigs produced in Germany and reared in accordance with the guidelines of the Initiative. 80/85% of the retail businesses participate in the IT system. 700 million euros transferred to the participating farmers during the 6 past years.

EU geographical indications (GIs): PDO/PGI


	Details
Name of the standard	Wine and agri-food products: two types of geographical indications (GI): protected designation of origin (PDO) and protected geographical indication (PGI) Spirit drinks and aromatised wine products: geographical indications (GI)

Name of the standard setter	European Commission
Logo	
Logo on the final product	Yes
Type of the standard setter	Public
Country of the standard setter	EU 27
Year of establishment	Initiated in the 1970s in the wine sector and progressively expanded to other sectors (las one being agri-food in 1992)
Context	GIs have been initially developed with intellectual property objectives. Other objectives have also been considered: market regulation, rural development and preservation of resources
BtoB or BtoC	BtoC
Geographical coverage	All EU MS covered, third countries may also apply to EU GIs
Sectoral coverage	All food and drink sectors
Method certif., control, monitoring	Controls led by third party, control comply with EU Official Control Regulation (OCR) ¹
Focus of the certification	Link with the between the quality of the product and its origin. Traceability of the product, guarantee that specific requirements are controlled.
Economic importance / Uptake	More than 3.000 names registered at EU level In 2017, estimated sales value under GI/TSG at EUR 77,15 billion: 51% for wine, 35% for agri-food products and 13% for spirit drinks. It accounted for 7% of the EU food and drink sector ² .


¹ Regulation (EU) 2017/625 on official controls and other official activities performed to ensure the application of food and feed law, rules on animal health and welfare, plant health and plant protection products

² AND International, *Study on economic value of EU quality schemes, geographical indications (GIs) and traditional specialties guaranteed (TSGs)*, 2019 - https://ec.europa.eu/info/food-farming-fisheries/key-policies/common-agricultural-policy/cmef/products-and-markets/economic-value-eu-quality-schemes-geographical-indications-gis-and-traditional-specialties-guaranteed-tsqs_en


Naturland

Items	Details
Name of the standard	Naturland
Name of the standard setter	Naturland
Logo	
Logo on the final product	Yes
Type of the standard setter	Private non-profit organisation
Country of the standard setter	Germany
Year of establishment	1982
Context	Naturland was founded in Germany near Munich in 1982 in order to promote environmental protection and natural resource conservation through organic farming practices. Naturland association groups farmers and partners (processing, retail, catering). Naturland also provides also support and specific services for partners and farmers.
BtoB or BtoC	BtoC
Geographical coverage	International – 60 countries
Sectoral coverage	All agri-food and aquaculture products
Method certif., control, monitoring	Annual control by certification body on site
Focus of the certification	Farming and processing
Economic importance / Uptake	600 000 hectares 140 000 organic farmers among which 4 500 farmers in Germany 1 000 processing companies

Label Bas-Carbone – Carbon Agri Method

Items	Details
Name of the standard	Label Bas Carbone
Name of the standard setter	Ministry of the ecological transition
Logo	
Logo on the final product	No
Type of the standard setter	Public
Country of the standard setter	France
Year of establishment	2019
Context	The Low-Carbon Label sets up an innovative and transparent framework aiming at certifying projects to reduce greenhouse gas emissions and to develop carbon sequestration and to monetize the additional GHG reductions achieved. It covers all activities including agriculture. Regarding agriculture 6 methods have been validated covering cattle, combinable crops, orchards plantations, sustainable management of hedgerows. Among these methods, Carbon agri is the has been implemented the most to date and mostly covers beef and milk production.
BtoB or BtoC	BtoB
Geographical coverage	France
Sectoral coverage	covering cattle, combinable crops, orchards plantations, sustainable management of hedgerows.
Method certif., control, monitoring	Methods are controlled by the Ministry Local projects are audited by private consulting firms at the beginning and after a 5 years period to assess the reduction of GHG achieved.
Focus of the certification	Reduction of GHG and sequestration of carbon
Economic importance / Uptake	22 projects in 2021 grouping 302 farmers and 33 300 hectares Reduction of 138 700 tonnes of CO2.


Wineries for Climate Protection (WfCP)

Items	Details
Name of the standard	Wineries for Climate Protection (WfCP)
Name of the standard setter	Federación Española del Vino (FEV)
Logo	
Logo on the final product	Yes
Type of the standard setter	Private – national professional body
Country of the standard setter	Spain
Year of establishment	Movement WfCP born in 2011, certification launched in 2015
Context	Provide guarantees on limitation of the impact on climate change, energy consumption, water management and wastes.
BtoB or BtoC	B to C
Geographical coverage	Spain (at present)
Sectoral coverage	Wine
Method certif., control, monitoring	<p>External control by bodies accredited by the FEV, every 2 years.</p> <p>The certification is based on 4 axis: emission reduction, renewable energies and energy efficiency, water management and waste management.</p> <p>The score of each axis is based on 100 points and the company must get at least 50 points for each axis the 1st year. From the first renewal (2 years) an improvement of 5% must be observed (or improvement over the last 4 years). It does not apply if the score is equal or greater than 75 points.</p> <p>The final objective is to reach an emission reduction of 30% by 2030 (set by the EU in Paris Agreements)</p>
Focus of the certification	<p>Reduction of GHG emission, renewable energies and energy efficiency, water management and waste reduction. The winery must design a plan to improve each dimension every two years and reduce the environmental indicators.</p> <p>A new version of the standard (under development while this study is conducted) will contain requirements on social, economic and biodiversity aspects.</p>
Economic importance / Uptake	<p>In 2022, there are 38 wineries with the WfCP certification, with around 7 or 8 new wineries each year. These wineries include both large and small companies (76% are companies with less than 50 employees and 24% with more than 50 employees. The wineries are of all regions of Spain.</p> <p>According to the standard owner, the WfCP certification is recognised by some national large-scale retailers and by the international stakeholders.</p>

Bord Bia Quality Mark – Beef and lamb scheme + Grass fed beef standard


Items	Details
Name of the standard	Bord Bia Quality Mark - Beef and lamb Grass fed beef standard (additional standard used by about 70% of the producer under Bord Bia Quality Mark)
Name of the standard setter	Bord Bia (Irish public authority)
Logo	
Logo on the final product	Yes
Type of the standard setter	Public body
Country of the standard setter	Ireland
Year of establishment	2000s
Context	Promotion of quality assured Irish products. Provide guarantees on agricultural products from Ireland.
BtoB or BtoC	BtoC
Geographical coverage	Ireland
Sectoral coverage	Beef, lamb, poultry, feed, pigmeat, egg, vegetables. The present analysis focuses on beef and lamb which are the main sectors covered.
Method cert., control, monitoring	Checks conducted by independent company
Focus of the certification	Origin Ireland. Compliance with legal requirements for farmers. New requirements implemented since about 2015, with the calculation of a carbon footprint for each farm (updated every 18 months). The results are digitalised.
Economic importance / Uptake	About 56.000 Irish farmers are members, including 54.000 farmers on beef and lamb. About 80-90% of the Irish beef production is under the scheme, about 30-40% for lamb. The share is higher in the beef sector as a bonus payment may be given by slaughterhouses / processors for certified beef, this bonus is not implemented for lamb. About 70% of the producers are also involved in the Grass fed beef standard from Bord Bia. 150 food processors and packers are also involved. The logo may be used on national and export markets. About 90% of Irish beef is exported, an important share of the exported products is certified but the logo may not be used on export markets.

Certified Sustainable Beef Framework (CSBF)

Items	Details
Name of the standard	Certified Sustainable Beef Framework – CRSB Certified
Name of the standard setter	Canadian Roundtable for Sustainable Beef (CRSB)
Logo	
Logo on the final product	Yes
Type of the standard setter	Private non-profit organisation
Country of the standard setter	Canada
Year of establishment	2014
Context	<p>The Certified Sustainable Beef Framework is an operation-level certification program implemented in 2014 and developed by Canadian Roundtable for Sustainable Beef (CRSB), an organization dedicated to advancing sustainability in Canadian beef production. The CRSB Certified, is a voluntary tool that enables producers and processors to demonstrate sustainability in their operations across the five principles of beef sustainability. Through third party audited certification, indicators of sustainability are verified against outcome-based standards.</p> <p>The CSBF is divided in 5 categories: Natural Resources, People and Community, Animal Health and Welfare, Food and Efficiency and Innovation. Among categories, different measures are implemented. The Framework is set at 3 level, depending on the efforts deployed for each measure:</p> <p>Level 1 Achievement: minimum requirements to meet the CSBF</p> <p>Level 2 Innovation: additional actions are implemented</p> <p>Level 3 Excellence: additional actions to support continuous improvement.</p>
BtoB or BtoC	BtoC
Geographical coverage	National
Sectoral coverage	Beef, dairy beef and veal products, from producers to processors
Method cert., control, monitoring	Certification by certification bodies recognised by the CRSB.
Focus of the certification	<p>Farm stage: the standard focuses on 5 main topics:</p> <ul style="list-style-type: none"> Natural Resources People and the Community Animal Health and Welfare Efficiency and Innovation Food safety and quality
Economic importance / Uptake	<p>1332 farms certified in 2021.</p> <p>17% of the Canadian cattle herd now raised on farms and ranches certified to CRSB sustainability standards.</p> <p>2,56 million tons of beef meat sold certified</p>

Equalitas

Items	Details
Name of the standard	Equalitas

Name of the standard setter	Created by FEDERDOC (National Federation of Wines under PDO), managed by Equalitas s.r.l.
Logo	
Logo on the final product	Yes
Type of the standard setter	Private
Country of the standard setter	Italy
Year of establishment	2016
Context	Objective to promote sustainable practices in the wine sector
BtoB or BtoC	BtoC
Geographical coverage	Mainly in Italy, few companies certified in Spain and a few contacts in France (no winery certified in France)
Sectoral coverage	Wine sector
Method certif., control, monitoring	<p>Three methods of certification:</p> <ul style="list-style-type: none"> - The company - The product - The whole PDO <p>At this stage, the only certification implemented are for companies. Some projects are in progress for PDOs.</p> <p>Three types of requirements in the scheme:</p> <ul style="list-style-type: none"> "M requirements": operator must comply with 100% of them "m requirement": operator must comply with 30% of them "R requirements": operator must comply with 10% of them <p>The present analysis focuses on "M requirements" that must be fully complied by operators.</p>
Focus of the certification	Environment, climate and social
Economic importance / Uptake	<p>More than 100 wineries in Italy certified (10-20 new wineries each year), less than 10 in Spain. No winery in other countries.</p> <p>This certification is requested in Scandinavian countries, thus, wineries certified are those who export in these countries.</p>

Global G.A.P Integrated Farm Assurance (IFA)

	Details
Name of the standard	Global GAP Integrated Farm Assurance v5.4 – Fruits and Vegetables
Name of the standard setter	FoodPLUS GmbH
Logo	
Logo on the final product	No
Type of the standard setter	Private
Country of the standard setter	Germany
Year of establishment	2001/2004
Context	<p>Global G.A.P (formerly EurepGAP) was initiated in 1999 by a group of retailers to introduce an independent verification system as a base for supplier compliance.</p> <p>The GLOBALG.A.P. Integrated Farm Assurance (IFA) Standard is GlobalG.A.P's core standard. It consists of General Rules and Control Points and Compliance Criteria (CPCC.) on traceability, workers' health and safety, food safety, environment. The CPCC are modular-based consisting of:</p> <ul style="list-style-type: none"> - The All-Farm Base Module: This is the foundation of all sub-scopes and defines all the requirements that all producers must first comply with to gain certification. - The Scope Module: This defines clear criteria based on the different food production sectors. GLOBALG.A.P. covers 3 scopes: Crops, Livestock and Aquaculture. - The Sub-scope Module: These CPCC cover all the requirements for a particular product or different aspect of the food production and supply chain. <p>Control points are made of major requirements (unconformity excludes certification), minor requirements (max. 5% of unconformity) and recommendations (non-mandatory).</p>
BtoB or BtoC	BtoB and BtoC (with add-ons)
Geographical coverage	Worldwide
Sectoral coverage	Crops, livestock and aquaculture
Method certif., control, monitoring	Initial audit for certification, then monitoring annual audit by the certification body. At least 10% of certified producers must undergo unannounced audits. Certificates are valid for 1 year.
Focus of the certification	Farm level
Economic importance / Uptake	<p>More than 209 000 certified farmers (IFA) in 2021 in 135 countries. 58% of the certified farmers are in Europe.</p> <p>More than 700 products covered.</p>

ANNEX 6 - DETAILED MATRIX OF THE OBJECTIVES OF THE EU STRATEGIES REGARDING SUSTAINABILITY OF AGRICULTURE

CAP, Farm to Fork and Biodiversity Strategy

Main theme	Requirements and standards	Social and economic aspects	Climate change mitigation	Climate change adaptation	Production of sustainable energy	Sustainable management of resources	Protection of biodiversity, habitats and landscape, ecosystem services (incl. limitation of pesticides and fertilizers)	Animal welfare	Antimicrobial resistance	Plant health	Human health
CAP (post 2020)	Improve the farmers' position in the value chain	x									
	Contribute to climate change mitigation and adaptation, as well as sustainable energy		x	x	x						
	Foster sustainable development and efficient management of natural resources such as water, soil and air					x					
	Contribution to the protection of biodiversity, enhance ecosystem services and preserve habitats and landscapes						x				
	Improve the response of EU agriculture to societal demands on food and							x	x		x

Main theme	Requirements and standards	Social and economic aspects	Climate change mitigation	Climate change adaptation	Production of sustainable energy	Sustainable management of resources	Protection of biodiversity, habitats and landscape, ecosystem services (incl. limitation of pesticides and fertilizers)	Animal welfare	Antimicrobial resistance	Plant health	Human health
	health, including safe, nutritious and sustainable food, as well as animal welfare										
Farm to Fork Strategy	Carbon sequestration		x								
	Circular bio-based economy					x					
	Production of renewable energy (production of biogas and solar energy)				X						
	Reduction of the overall use and risk of chemical pesticides and hazardous pesticides by 50% by 2030 and encouragement of alternatives (integrated pest management, crop rotation,...)						x				
	Reduction of nutrient losses in the environment by 50% in 2030 and reduction of the use of fertilizer by 20% by 2030						x				

Main theme	Requirements and standards	Social and economic aspects	Climate change mitigation	Climate change adaptation	Production of sustainable energy	Sustainable management of resources	Protection of biodiversity, habitats and landscape, ecosystem services (incl. limitation of pesticides and fertilizers)	Animal welfare	Antimicrobial resistance	Plant health	Human health
	Limitation of GHG emission		x								
	Reduction of EU sales of antimicrobials by 50% by 2030 in relation with antimicrobial resistance (AMR)								x		
	Improve animal welfare							x			
	Plant health (emerging pests diseases)									x	
	Increase organic production: at least 25% of Eus agricultural land by 2030	x				x	x	x	x		x
Biodiversity strategy	Effectively manage all protected areas, defining clear conservation objectives and measures, and monitoring them appropriately						x				
	Legally binding EU nature restoration targets to be proposed in 2021, subject to an impact assessment. By		x				x				

Main theme	Requirements and standards	Social and economic aspects	Climate change mitigation	Climate change adaptation	Production of sustainable energy	Sustainable management of resources	Protection of biodiversity, habitats and landscape, ecosystem services (incl. limitation of pesticides and fertilizers)	Animal welfare	Antimicrobial resistance	Plant health	Human health
	2030, significant areas of degraded and carbon-rich ecosystems are restored; habitats and species show no deterioration in conservation trends and status; and at least 30% reach favourable conservation status or at least show a positive trend.										
	The decline in pollinators is reversed.						X				
	The risk and use of chemical pesticides is reduced by 50% and the use of more hazardous pesticides is reduced by 50%.						X				
	At least 10% of agricultural area is under high-diversity landscape features.						X				
	At least 25% of agricultural land is under organic farming management, and the	X				x	x	x	x		x

Main theme	Requirements and standards	Social and economic aspects	Climate change mitigation	Climate change adaptation	Production of sustainable energy	Sustainable management of resources	Protection of biodiversity, habitats and landscape, ecosystem services (incl. limitation of pesticides and fertilizers)	Animal welfare	Antimicrobial resistance	Plant health	Human health
	uptake of agro-ecological practices is significantly increased.										
	Three billion new trees are planted in the EU, in full respect of ecological principles.		X				x				
	Significant progress has been made in the remediation of contaminated soil sites.						X				
	At least 25 000 km of free-flowing rivers are restored.						X				
	The losses of nutrients from fertilisers are reduced by 50%, resulting in the reduction of the use of fertilisers by at least 20%.										
	The negative impacts on sensitive species and habitats, including on the seabed through fishing and extraction activities, are substantially reduced to										

Main theme	Requirements and standards	Social and economic aspects	Climate change mitigation	Climate change adaptation	Production of sustainable energy	Sustainable management of resources	Protection of biodiversity, habitats and landscape, ecosystem services (incl. limitation of pesticides and fertilizers)	Animal welfare	Antimicrobial resistance	Plant health	Human health
	achieve good environmental status.										

ANNEX 7 - CONTRIBUTION OF THE SCHEMES TO EU POLICIES

Haute Valeur Environnementale (HVE) – voie A

Sustainability objective	Level of contribution	Justification
Farmers' position value chain	Out of scope	
Climate change mitigation	Out of scope	
Climate change adaptation	Limited contribution	The standard does not target climate change adaptation but some requirements are likely to positively contribute to better crop or livestock resilience: <ul style="list-style-type: none"> - promotion of Drought tolerant plant species and varieties - other agronomic practices that save water resources (Sowing date, Mulching) - promotion of increased number of cultivated/raised varieties or species
Prod. sustainable energy	Out of scope	
Sustainable management of resources	High contribution	The standard provides specifications on: <ul style="list-style-type: none"> - management of irrigation - phytosanitary strategy, including measures to avoid pesticides release in the environment (recycling and treatment of irrigation water, inter-row grassing) - management of fertilisation and soil quality
Protection of biodiv., habitats, landscape, ecosystem services	High contribution	The standard assesses practices related to: <ul style="list-style-type: none"> - phytosanitary strategy (untreated areas, frequency of phytosanitary treatment, use of alternative methods to chemical control, percentage of the UAA committed to a AEEM aimed at reducing the consumption of plant protection products, level of consumption of phytosanitary products, Specific and varietal diversity, inter-row grassing...) - management of fertilization and soil quality (but no-tillage related specifications) - biodiversity friendly practices (Percentage of UAA with agro-ecological infrastructure, share of UAA cultivated with the main crop, Number of plant species cultivated, Number of animal species raised, beehives, Endangered variety, breed or species)
Animal welfare	Out of scope	
Antimicrobial resistance	Out of scope	
Plant health	High contribution	The standard promotes practices related to: <ul style="list-style-type: none"> - alternative methods to chemical fighting against pests and weed (mechanical weed control, use of crop auxiliaries) - measures aiming to reduce the need of phytosanitary products (vegetable or biodegradable mulch, diversity of crop succession in specialised crops systems, creation and maintenance of a perennial grass cover (strips or grassy areas)) - promotion of crops species or varieties diversity - promotion of drought-resistant crop varieties
Human health	Limited contribution	The standard requires a phytosanitary strategy, including options for treatment reduction or suppression, and measures avoiding the release of pesticides in the environment.

Integrowana Produkcja

Sustainability objective	Level of contribution	Justification
Farmers' position value chain	Out of scope	
Climate change mitigation	Limited contribution	The standard does not explicitly target climate change mitigation but some requirements are likely to enhance carbon storage and reduction of GHG emissions: - practices promoting soil fertility and preventing soil depletion - rational use of fertilizers and phytosanitary products - tree plantation for hosting natural enemies of pests
Climate change adaptation	Limited contribution	The standard does not explicitly target climate change adaptation but some requirements are likely to positively contribute to better crop resilience: - promotion of varieties resistant to abiotic factors (climate, soil properties, fertilization) and biotic stresses (diseases), in order to reduce irrigation and plant protection - plant disease prevention through crop rotation, soil work, selection of varieties adapted to the local soil and climate conditions - Avoid establishing/maintaining orchards/plots on areas prone to frost heave
Prod. sustainable energy	Out of scope	
Sustainable management of resources	High contribution	The standard provides requirements on: - soil preparation and protection ("use of a pre-crop consisting of a mixture of legumes with cereals or phacelia, or use of mustard, velvetleaf or buckwheat to minimize the effects of soil fatigue, improve soil fertility and/or reduce soil pests"), soil fertility analysis - rational use of phytosanitary products and fertilizers (positive impact on air, water and soil quality) /!\ no specific requirement on the rational use of water resources, legal requirements are only recalled and the standard emphasises the needs for irrigation in the plant health.
Protection of biodiv., habitats, landscape, ecosystem services	High contribution	The standard provides specifications for rational use and limitation of pesticides and fertilizers (ex: maximum number of product application). The new standard requires the implementation of measures promoting biological diversity within and around the farm, to create conditions that are favorable for natural control of pests (creation of "buffer zones" where plant species providing large quantities of nectar and pollen are grown next to the crop, providing sugars and proteins necessary for the development of insects, introduction of nest boxes, trees and bushes for entomophagous insect remnants etc.)
Animal welfare	Out of scope	
Antimicrobial resistance	Limited contribution	The standard provides specifications to prevent the development of pesticide resistance (eg rotation of preparations with different modes of action) and prophylactic measures (disease monitoring, removal of affected trees...). But it does not forbid the use of chemicals or pesticides (unlike organic production).

Plant health	High contribution	IP methodology includes many specifications for crop care; protection against diseases and pests, including non-chemical methods.
Human health	Limited contribution	The standard provides many specifications for rationing the use of phytosanitary products and fertilizers (maximum dose, type of products, management plan,...) but does not forbid the use of chemicals or pesticides (unlike organic production). Besides, it is hard to determine whether specifications are binding or recommended. In order for Integrated Plant Production System to effectively contribute achieving the objectives of the "Farm to Fork" strategy, the Minister has deemed it necessary to review the requirements of the integrated plant production system methodologies, specifically with a view to introduce the mandatory use of non-chemical phytosanitary methods (biological, agrotechnical).

IP Sigill-certifierad and Svenskt Sigill-märke

Sustainability objective	Level of contribution	Justification
Farmers' position value chain	Out of scope	
Climate change mitigation	Out of scope or high contribution if option selected	<p>IP Sigill general standards does not address climate change mitigation specifically.</p> <p>However, a third tiers option has been defined to tackle GHG emissions. The requirements set up in the option have been assessed to reduce the impacts on climate by 30% in comparison with other comparable crop productions. The option entails a wide range of measures including reduction of nitrogen excess, implementation of best practices regarding the application of fertilizers, the use of low carbon footprint fertilizers, the optimization of carbon sequestration in soils through infrastructures and practices, the adaptation of rearing period of animals, the production of on farm feed production, the use of climate certified feed...</p>
Climate change adaptation	Out of scope	
Prod. sustainable energy	Out of scope or high contribution if option selected	<p>IP Sigill general standards does not address the production of sustainable energy.</p> <p>However, IP Sigill climate option sets several requirements including the monitoring of energy consumption, the definition of a plan aiming to improve energy efficiency and/or the target to source 100% of electricity from renewable sources by 2028.</p>
Sustainable management of resources	High contribution	<p>The standard includes requirements regarding responsible water management and sustainable water outtake such as performing a risk analysis, and drafting a water management plan.</p> <p>Besides the establishment of new cultivations on fields with organic soil is not allowed. (5.1.k)</p>

Protection of biodiv., habitats, landscape, ecosystem services	High contribution	Environment and biodiversity are the main theme addressed by IP Sigill.. The standards includes a wide range of measures including: - the mapping and protection of landscapes and habitats, - the conservation of natural , infrastructures (stone wall, cairns, water sources and wetland, single trees, non-arable outcrops. - the use of Integrated management practices. Additional rules have been set up for certified natural pasture beef including the obligation to maintain at least 50% of the pastures unplowed, non-fertilized, neither watered nor machined.
Animal welfare	High contribution	The standard provides measures regarding : - routine actions to be implement in case of malfunctions to maintain the supply of water, feed and ventilation; - the application of diagnosis, treatments and surgical procedures should be performed by veterinarian or other qualified person - cattle should have minimum outdoor access to pasture according to their age and the climatic conditions. - laying hens have free outdoor access Other animals are not concerned by the obligation to benefit from outdoor access.
Antimicrobial resistance	Limited contribution	The standard requires that the use of antibiotics or other medications should be monitored and prevented without additional details.
Plant health	High contribution	The standard entails measures aiming at: - preventing attacks from Fusarium fungus that can form mycotoxin (4.7.10.S - Combinable crops) - definition of a crop and fertilisation plan (4.4.2.S) - Integrated pest management shall be applied in respect to crop rotations. (4.10.1.S)
Human health	Limited contribution	The standard provides rules regarding food safet through the dedicated module IP Sigill Food. The scheme structures the legislation requirements that apply for food processors and catering operators.

Leaf marque

Sustainability objective	Level of contribution	Justification
Farmers' position value chain	Out of scope	
Climate change mitigation	High contribution	The standard promotes practices that are likely to contribute to a more efficient use of energy. Practices include careful use of inputs, appropriate tillage, reduced reliance on fossil fuel, and striving for optimum instead of maximum yields. The standard requires an annual energy audit (6.1), the monitoring of energy consumption and CO2 emissions (6.2 and 6.3), and an energy action plan aiming at (6.4) <ul style="list-style-type: none"> enhancing energy use efficiency minimising energy consumption reducing dependency on non-renewable energy sources reducing GHG emissions
Climate change adaptation	Out of scope	
Prod. sustainable energy	High contribution	The standard requires an annual energy audit (6.1), the monitoring of energy consumption and CO2 emissions (6.2 and 6.3), and an energy action plan aiming at (6.4) <ul style="list-style-type: none"> reducing dependency on non-renewable energy sources

Sustainable management of resources	High contribution	The standard provides voluntary best practices to implement regarding : - water management - rational use of phytosanitary products and fertilizers (positive impact on air, water and soil quality) - energy efficiency - soil management fertility
Protection of biodiv., habitats, landscape, ecosystem services	High contribution	The standard provides voluntary best practices to implement regarding : - rational use of phytosanitary products and fertilizers (positive impact on air, water and soil quality) - soil management fertility - Landscape and Nature Conservation measures through an audit (8.1), an enhancement plan (8.2) which is consistent with farming and husbandry practices (8.3), field margins and boundaries are under sympathetic management (8.14), habitats banks must be implemented according to the size of the fields (8.15), a minimum of 5% farm area available as appropriate habitats (8.23)
Animal welfare	High contribution	The standard provides voluntary best practices to implement regarding animal husbandry including the monitoring of welfare indicators, annual audit by a vet, the definition of an health and welfare strategy.
Antimicrobial resistance	High contribution	The standard proposes the ban of antibiotic on farm. There is an implemented Livestock Health Plan (5.7) that includes: - targets to prevent resistance build-up to veterinary medicines - adoption of non-chemical methods to optimise fertility, production, health and welfare, where relevant - biosecurity
Plant health	High contribution	The standard provides requirement regarding the implementation of a Crop Health and Protection plan which include the following themes: o Integrated Farm Management (IFM) o Integrated Pest Management (IPM) o crop rotation, where applicable o Selection of varieties relevant to production systems and long-term sustainability o adoption of non plant protection product (PPP) interventions to control pests, where appropriate o cultivations o selection and justification of PPPs to reduce any effects on beneficial species o appropriate dose rates and timings o resistance management strategy
Human health	High contribution	Leaf standards restrict the use of antibiotics

Sistema di Qualità Nazionale di Produzione Integrata per le Produzioni Agricole (SQNPI)

Sustainability objective	Level of contribution	Justification
Farmers' position value chain	Out of scope	
Climate change mitigation	Limited contribution	The standard promotes practices that are likely to contribute to increased carbon storage (work for soil structure, reduction of soil compaction, grassing in the inter-row area, restoration and realization of hedges etc.) and reduction of GHG emissions (management of phytosanitary products and fertilizers, reduction of soil tillage). Specifications include the promotion of low-carbon heating sources for "Heating of crops" (greenhouse): "permitted fuels are exclusively methane, low-sulphur oil and diesel, fuels of plant origin (pine cones, pine nuts, other wood processing waste) and all fuels with a low environmental impact (all heating

		systems using alternative energies (geothermal, solar energy, power station waste) are permitted)". There is a facultative additional requirement (to become mandatory in 2023) for operators involved in the post-harvest phase to monitor energy consumption and prepare a three-year plan for improving the management of energy resources with actions aimed at reduction of consumption and production of energy from renewable sources. Alternatively, it must use supplies of energy produced from renewable sources certified.
Climate change adaptation	Limited contribution	The standard provides that "Varieties, ecotypes, "whole plants" and rootstocks must be chosen according to the specific pedoclimatic conditions of cultivation (examples: Soil Map, Agrometeorological Data, Varietal Lists, Technical Report, etc) and that the suitability of the area for cultivation should be assessed in regard to the crop needs (including agrometeorological data). On preparing the soil for planting and seeding, the works must be defined according to the type of soil, the crops involved, the location, the risks of erosion and the climatic conditions. The works must contribute to maintaining the structure, promoting a high biodiversity of microflora and microfauna of the soil and a reduction of the phenomena of compaction, allowing the removal of excess rainwater. SQNPI standard includes requirements for irrigation and water use management. Contribution of the standard to climate change adaptation is therefore likely, but the objective is not explicitly targeted.
Prod. sustainable energy	Limited contribution	There is a facultative additional requirement for operators involved in the post-harvest phase to "monitor energy consumption and prepare a three-year plan to improve the management of energy resources with actions aimed at reducing consumption and producing energy from renewable sources. Alternatively, it must use energy supplies produced from renewable sources. Compliance with the additional commitments is optional and transitional only for 2022, as from 2023 it will be mandatory and therefore an additional condition of the SQNPI certification process.
Sustainable management of resources	High contribution	The standard provides requirements on: <ul style="list-style-type: none"> - soil preparation and protection ("with the objectives of safeguarding and improving soil fertility, avoiding erosion and degradation phenomena", "The work must contribute to maintaining the structure encouraging a high biodiversity of soil microflora and microfauna in the soil and a reduction in compaction phenomena", soil fertility analysis (pedological and agronomic) - irrigation management ("comply with the maximum volume of watering per season and per irrigation operation as defined in the integrated production specifications" - rational use of phytosanitary products and fertilizers (positive impact on air, water and soil quality)
Protection of biodiv., habitats, landscape, ecosystem services	High contribution	The standard provides specifications for: <ul style="list-style-type: none"> - promoting a high biodiversity of microflora and microfauna of the soil (through the practices of soil preparation) - Implementation of techniques and interventions aimed at strengthening biodiversity (Examples: restoration and construction of hedges, artificial nests, water reservoirs, dry stone walls, polyphite grassing, alternate mowing of rows etc. (possibly based on technical report) - rational use of phytosanitary products and fertilizers
Animal welfare	Out of scope	
Antimicrobial resistance	Out of scope	
Plant health	High contribution	The standard provides specifications to ensure good plant resistance: <ul style="list-style-type: none"> - "The propagation material must be healthy and genetically guaranteed and must

		be able to offer phytosanitary and agronomic quality guarantees" - agronomic practices for weed control (eg mandatory grassing in the inter-row)
Human health	Limited contribution	The standard provides many specifications for rationing the use of phytosanitary products and fertilizers (maximum dose, type of products, management plan,...) but does not forbid the use of chemicals or pesticides (unlike organic production). At farming stage, criteria include: - Perform multi-residual analysis in self-control - Exclusion of elementary units of cultivation UEC non-compliant on the basis of the results of analysis in self-control performed directly by member companies - For operators involved in post-harvest stage, compliance is expected with sectoral regulations on forbidden post collection treatments

Beter Leven

Sustainability objective	Level of contribution	Justification
Farmers' position value chain	Out of scope	
Climate change mitigation	Limited contribution	BL has a limited but growing contribution to climate change mitigation objective. The standard strives to broaden its scope beyond animal welfare and evolve towards a more integrated sustainability label, by including additional criteria on feed sustainability, climate and energy aspects, and manure management. A first step was made in 2019 with the new dairy cattle standard requiring companies to use 100% green energy and demonstrate efforts to achieve climate neutrality by January 1, 2030. Local feed is encouraged and cows are therefore only allowed a maximum of 40% concentrate and 70% of this concentrate must eventually come from Europe. Beter Leven aims to broaden these criteria to pigs, laying hens and broilers standards (100% green energy for animal shelters).
Climate change adaptation	Limited contribution	The new dairy-cattle standard promotes practices such as extensive herb-rich grassland and maintaining of natural landscape features, that are likely to favour water infiltration and prevent floodings and mudslides in the pastures. All animal standards include requirements to prevent heat stress. But climate change adaptation is not explicitly targeted.
Prod. sustainable energy	Limited contribution	The latest dairy cattle 3-stars standard sets a maximum amount of electricity purchased from the grid, with higher objectives as of 1-1-2023, and targets electricity neutrality of farms from 2028 ("As of 1-1-2028, the farm must generate all its own electricity (excluding dairy processing and private use)"). The farm has a contract to purchase 100% green energy -solar or wind turbines- generated in the Netherlands. Barns are constructed without a gas connection (For completely new construction).
Sustainable management of resources	Limited contribution	Pigs and poultry standards do not include any specification for the management of manure and water to prevent diffuse pollution. However, the standard is striving to evolve towards a more integrated sustainability scheme. To illustrate it, the latest version of the dairy cattle standard includes following requirements: o Packaging materials and other waste flows (paper, plastic, etc.) are disposed of separately as far as possible; o Restrictions relating to the application of fertiliser on herb-rich grassland;

		<ul style="list-style-type: none"> o Manure is not disposed of to a manure processor, manure fermentation is not applied on the farm, and manure is not processed in a digester; o The dairy farmer must be land based ie the manure processing capacity of the farm must equal the phosphate production; o A minimum share of 20% is maintained in extensive herb-rich grassland in plots used for dairy farming; o The establishment of a farm Nature Management Plan.
Protection of biodiv., habitats, landscape, ecosystem services	Limited contribution	<p>Pigs and poultry standards do not include any specification for the preservation of ecosystems. However, the standard is striving to evolve towards a more integrated sustainability scheme. To illustrate it, the latest version of the dairy cattle standard includes following requirements:</p> <ul style="list-style-type: none"> o A minimum share of 20% is maintained in extensive herb-rich grassland in plots used for dairy farming; o The establishment of a farm Nature Management Plan.
Animal welfare	High contribution	<p>The level of requirement depends on the level of the standard (1 star, 2 stars, 3 stars). Requirements are provided on:</p> <ul style="list-style-type: none"> - minimum space allowance per individual - type of entertainment material procured - prohibition of docking of tails (levels 2 and 3) - outdoor access (levels 2 and 3) etc.
Antimicrobial resistance	High contribution	<p>Following requirements can be found:</p> <ul style="list-style-type: none"> o a Farm treatment plan describing which veterinary medicines /antibiotics are use o recording of compliance with a veterinary practitioner's treatment plan o exclusion of antibiotics reserved for human health care o level of antibiotics use must be under the relevant action zone set by the Dutch Veterinary Medicines Institute o presence of a written policy in the farm health plan with regard to reducing the amount of antibiotics used o Guidance and assistance by swine specialist in case of excessive antibiotics use
Plant health	Out of scope	
Human health	High contribution	<p>Following requirements can still be found:</p> <ul style="list-style-type: none"> o a Farm treatment plan describing which veterinary medicines /antibiotics are use o recording of compliance with a veterinary practitioner's treatment plan o The use of hormones is not permitted unless the farm's contracted veterinary practitioner considers this necessary. o presence of emergency facilities (inspection of the electrical installations, fire extinguishers) o water quality analysis, pest control on the farm, access to a hygiene sluice for employees, suppliers and visitors, daily animal inspections... o On the other hand: no specifications for the management of manure and diffuse pollution (nitrates)

Initiative Tierwohl's "Haltungsform labelling scheme"

Sustainability objective	Level of contribution	Justification
Farmers' position value chain	Out of scope	
Climate change mitigation	Out of scope	
Climate change adaptation	Limited contribution	Climate change adaptation is not explicitly targeted by the scheme, but shed climate check (one of the obligatory essential requirements of the Animal Welfare Initiative for farmers) ensures that appropriate regulation is implemented to address climate change effects such as heat waves.
Prod. sustainable energy	Out of scope	
Sustainable management of resources	Out of scope	
Protection of biodiv., habitats, landscape, ecosystem services	Out of scope	
Animal welfare	High contribution	Initiative Tierwohl has been primarily designed to promote animal welfare at livestock producer level, and relies on "scientifically substantiated, measurable and verifiable requirements for livestock production". Criteria cover the stage of fattening (space allowance, shed climate, access to drinking water, minimum amount of exposure to daylight...), and handling of livestock when loading.
Antimicrobial resistance	Limited contribution	"For all participating poultry and pig farms, the use or administration of antibiotics is recorded in a private antibiotics database managed by QS (Qualität und Sicherheit GmbH). This monitoring creates a data set that allows livestock owners and veterinarians to identify any need for action and introduce reduction strategies if necessary. Complying with the criteria of the Animal Welfare Initiative, e.g. providing up to 40% more space than is prescribed by law or offering roughage or additional manipulable material, can actively contribute to improving animal health. The use of antibiotics is only permitted if an animal falls ill and if they are prescribed by a veterinarian."
Plant health	Out of scope	
Human health	High contribution	It is ensured at all times that the keeping of animals is in compliance with the law, and corresponds to the QS requirements and good professional practice for livestock production, hygiene, animal health. Requirements cover Hygiene of feeding facilities, Hygiene of drinking facilities, Cleaning and Disinfection Measures... A prerequisite for livestock owners that want to join the Initiative Tierwohl is participation in the QS scheme, which defines strict manufacturing and marketing criteria along the entire value chain for fresh food, including meat. As part of the inspections for the Animal Welfare Initiative, a livestock owner must prove that they have implemented certain basic criteria from the QS scheme, e.g. regarding humane farming, hygiene and animal health.

EU geographical indications (GIs): PDO/PGI

Sustainability objective	Level of contribution	Justification
Farmers' position value chain	High contribution	In more than half of the cases, the registration as GIs/TSGs has a positive impact on farmers' (for 52% of producer groups) or processors' income (for 54% of producer groups). Based on an electronic survey with 477 GIs/TSGs in the Evaluation of GI/TSG for DG AGRI (2020)
Climate change mitigation	Limited contribution	Environment, climate and animal welfare are not primary objectives of GIs. However, these are growing concerns for producers, consumers and public bodies and we observe some changes. For instance:
Climate change adaptation	Limited contribution	<ul style="list-style-type: none"> - Evolution of the specifications of some GIs to add environmental requirements, - Public initiative to integrate pre-defined agro-environmental requirements (for instance in the wine sector in France)
Prod. sustainable energy	No contribution	Most of the producer groups surveyed in the context of the EU Evaluation of GIs and TSGs (477 GIs/TSGs covered) declared that their product specifications take into consideration environmental (64%).
Sustainable management of resources	Limited contribution	
Protection of biodiv., habitats, landscape, ecosystem services	Limited contribution	Main environmental aspects are related to landscape, used of old breeds and plant varieties (biodiversity), mitigation of the impact on water quality, limitation of the use of water, fostering extensive practices, mitigation of the impacts on biodiversity, fostering organic production. A few producer groups also indicated requirements with an impact on energy and greenhouse gas emissions.
Animal welfare	Limited contribution	Regarding animal welfare, 61% of the GIs/TSGs in the animal sector declare they include specific requirements. This covers, for instance, animal feeding practices and grazing possibilities.
Antimicrobial resistance	Limited contribution	
Plant health	Limited contribution	This process is still on-going as several GIs covered by case studies in the Evaluation of GIs and TSGs reported that initiatives were on progress.
Human health	High contribution	We consider a high contribution of GIs to human health in the sense that the scheme provides high level of information to the final consumer: on the origin of the products and on the method of production (via the GI specification which are available online)

Naturland

Sustainability objective	Level of contribution	Justification
Farmers' position value chain	Limited contribution	The governance of Naturland association include farmers representatives.
Climate change mitigation	High contribution	Organic Agriculture can significantly reduce carbon dioxide emission through the careful management of nutrients and, hence, the reduction of N ₂ O emissions from soils and also through the sequestration carbon in soils.
Climate change adaptation	Out of scope	
Prod. sustainable energy	Limited contribution	Naturland standards requires to use renewable energy resources for preference
Sustainable management of resources	High contribution	Naturland standards provides rules regarding sustainable water use in areas with scarce water supplies (e.g. creation of a water management plan, use of efficient, water-saving irrigation systems, etc.).
Protection of biodiv., habitats, landscape, ecosystem services	High contribution	In addition to the positive impacts of organic farming on the protection of biodiversity, Naturland has set up a partnership with LBV (Bavarian Bird Protection Society) in order to improve Naturland farming provisions regarding biodiversity, conservation and protection. The use of peat is limited as well as the use of copper and the fertilisation rules are stricter than EU regulation' ones which reduce the impact on soils.
Animal welfare	High contribution	Naturland standards provides a wide range of measures addressing welfare including higher stocking density, Annual animal welfare inspection, a minimum of 50% of fodder must be home-grown etc.
Antimicrobial resistance	High contribution	The use of antibiotics and conventional animal medicines on prawns is strictly prohibited. For other animals, the use of antibiotics is restricted according as for EU organic regulation (1 treatment /year for animals living more than a year and 1 treatment max./ animals if they live less than a year). These practices contribute to reduce the occurrence of antimicrobial resistance.
Plant health	High contribution	Organic standards ban synthetic pesticides and fertilizers and promotes long crop rotations including leguminous crops which contribute to improve plant health.
Human health	High contribution	Organic standards restrict the use of antibiotics and additives; Naturland standards provides additional rules regarding these issues which contribute to producer agri-food products that benefit consumer health.

Label Bas-Carbone

Sustainability objective	Level of contribution	Justification
Farmers' position value chain	Out of scope	
Climate change mitigation	High contribution	The Low Carbon Label addresses only climate change mitigation.
Climate change adaptation	Out of scope	
Prod. sustainable energy	Out of scope	
Sustainable management of resources	Out of scope	
Protection of biodivers., habitats, landscape, ecosystem services	Out of scope	
Animal welfare	Out of scope	
Antimicrobial resistance	Out of scope	
Plant health	Out of scope	
Human health	Out of scope	

Wineries for Climate Protection (WfCP)

Sustainability objective	Level of contribution	Justification
Farmers' position value chain	High contribution	BtoC scheme
Climate change mitigation	High contribution	One of the main focus of the certification
Climate change adaptation	Limited contribution	The schemes mainly aims to limit the impact of the production, no directly to adapt it.
Prod. sustainable energy	High contribution	The production of renewable energy provides a bonus in the scoring for the certification
Sustainable management of resources	High contribution	Sustainable management of water and energy
Protection of biodivers., habitats, landscape, ecosystem services	Low contribution	The scheme doesn't directly cover biodiversity, habitats, landscape, ecosystem services
Animal welfare	Out of scope	/
Antimicrobial resistance	Out of scope	/
Plant health	Out of scope	/
Human health	Out of scope	/

Bord Bia Quality Mark – Beef and lamb scheme

The present analysis focuses on the standard “Sustainable Beef & Lamb Assurance Scheme”.

Sustainability objective	Level of contribution	Justification
Farmers' position value chain	Limited contribution	The scheme aims to highlight the Irish origin of the agricultural products to the final consumer. Processors may pay a bonus for farmers involved in the scheme. However, no details are provided on the number of processors concerned and the amount of the bonus (see FAQ on the Bord Bia Quality Mark ³)
Climate change mitigation	Out of scope	No specific requirements
Climate change adaptation	Out of scope	No specific requirements
Prod. sustainable energy	Out of scope	No specific requirements
Sustainable management of resources	Limited contribution	No specific requirements
Protection of biodiv., habitats, landscape, ecosystem services	Limited contribution	No specific requirements
Animal welfare	High contribution	Specific requirements are developed on animal welfare and health. For instance: - each farmer must elaborate a documented Animal Health Plan (AHP), - a contingency plan must be in place to safeguard the health and welfare of the animals in case of specific event, - animals must be treated and handled in a manner that minimises stress, - minimum space allowance (in line with EU laws), - routine tail docking of cows and calves is prohibited, - animals are handled without excessive physical force and without the use of electric goads. The Grass Fed Beef Standard (Bord Bia) implemented by about 70% of the beef producers requires that “animals must have been at pasture for a minimum of the national average of 220 days per year during their lifetime
Antimicrobial resistance	Limited contribution	No specific requirements are set on the use of antibiotics
Plant health	Limited contribution	Requirements on the use of pesticide but no specific requirements on plant health.
Human health	Limited contribution	The scheme guarantees the compliance with food safety laws. The main asset of this scheme is to provide information on the origin of the product.

³ <https://www.bordbia.ie/farmers-growers/get-involved/become-quality-assured/frequently-asked-questions/>

Certified Sustainable Beef Framework

Sustainability objective	Level of contribution	Justification
Farmers' position value chain	Out of scope	
Climate change mitigation	Limited contribution	<p>The indicators, goals and requirements within the Efficiency and Innovation Principle aim to promote efficiency, innovation, economic viability and reduce waste. In particular, the indicator "Energy resources are responsibly used" set out in the label requirements aims at taking in account efficient sources of energy, and energy conservation practices like motion detector lighting or properly inflating tires on tractors and farm equipment to boost fuel efficiency. This indicator explores a variety of forms of energy used in operations (Natural gas and fuels) and explores energy draws such as heating and lighting.</p> <p>Additionally, the CSBF addresses obligation to limit carbon emission through its indicator "Practices that support carbon sequestration and minimize emissions are understood and/or employed". Yet, this indicator has a limited impact at the level 1 (Achievement) of the standard, as producers only have to be aware of management practices that support carbon sequestration and minimize emissions. Level 2 (Innovation) and 3 (Excellence) impose the implementation of such management practices.</p>
Climate change adaptation	Out of scope	
Prod. sustainable energy	Out of scope	
Sustainable management of resources	High contribution	<p>The CSBF standard includes requirements regarding the management and improvement of natural resources under its operation "Natural Ressources". In particular the following aspects are addressed by several measures: preservation of riparian areas, wetlands, and surface/ground waters, enhancement of soil quality (limitation of erosion, compaction, and degradation), grasslands management (and implementation of a grazing management plan), protection native ecosystems, biodiversity and air quality.</p>
Protection of biodivers., habitats, landscape, ecosystem services	High contribution	<p>The CSBF framework addresses objectives to preserve habitats, landscape, and ecosystems through a wide range of operations, in particular:</p> <ul style="list-style-type: none"> - Riparian areas, wetlands, surface and ground water sources and nutrient runoff are responsibly managed to help maintain or enhance watershed health - Soil health is maintained or enhanced - Air quality for people and animals is responsibly managed (for feedlots only) - Grasslands, tame pastures and native ecosystems are maintained or enhanced (in grazing lands) - Habitat for wildlife is maintained or enhanced, and wildlife conflict prevention is managed

		Other efforts are carried by the CSBF concerning the storage of pesticides and fertilizer, that must be safely and responsibly used, stored and disposed, to avoid any kind of pollution.
Animal welfare	High contribution	<p>Main points of the scheme concerning animal welfare are in alignment with the National Farm Animal Care Council Codes of Practice (https://www.nfacc.ca/) for beef, dairy and veal cattle. Measures detailed in the CSBF specification draw the following obligations, with extended objectives according to the level of implementation (from 1 (Achievement) to 3 (Excellence)):</p> <ul style="list-style-type: none"> - Animal health and welfare is monitored and maintained as per the relevant National Farm Animal Care Council Code of Practice; sick and injured animals are treated appropriately - Animal health products are responsibly used and disposed to improve animal health - Steps are taken to mitigate/minimize animal pain and distress - Decision points for euthanasia are clear and methods of euthanasia are acceptable - Feeding areas and pastures allow cattle to express normal behaviors including resting postures - Unnecessary animal stress is minimized
Antimicrobial resistance	Limited contribution	The CSBF framework contributes indirectly to limit the antimicrobial resistance by promoting the correct use of animal health products. In particular, the measure "Animal Health products are responsibly used and disposed" described in the specification specifies that workers must be trained on accurate disease diagnosis and proper use of animal health products provided by veterinarian.
Plant health	Out of scope	
Human health	Limited contribution	<p>The CSBF standards sets out criteria to human health by its measures "Operation contributes to the production of safe food" and "Operation contributes to the production of quality beef". It aims at raise awareness for producers and adopt management practices that seek to enhance quality beef and support food safety measures. In particular, level 2 (Achievement) requires on-farm food safety training has to be completed by workers. These measures improve food safety for final consumers.</p> <p>Additionally, another measure included in the category "Efficiency and Innovation" of the specification contribute to human health: "Crop input products are safely and responsibly used, stored and disposed (training of worker handling dangerous products)". This measure limit the risks of contamination in the final products.</p>

Equalitas

Sustainability objective	Level of contribution	Justification
Farmers' position value chain	High contribution	BtoC scheme, which is asked on some markets
Climate change mitigation	High contribution	Calculation of a carbon footprint. The certified organisation quantifies GHG emissions each three-year certification period, using as reference ISO 14064-1 and considering the minimum elements included in the Annex I of the scheme.
Climate change adaptation	Limited contribution	The scheme aims more to limit the impact on the environment than to adapt the production to climate change.
Prod. sustainable energy	Limited contribution	Calculation of a carbon footprint but no requirement on the production of sustainable energy.
Sustainable management of resources	High contribution	Calculation of carbon and water footprints. For vineyard over 15 ha, semi-natural areas shall be managed on at least 5% of the area. Potential improvements for their functions, including interconnection, shall be formalised.
Protection of biodiv., habitats, landscape, ecosystem services	High contribution	Calculation of biodiversity indicators in soil, water and air. For vineyard over 15 ha, semi-natural areas shall be managed on at least 5% of the area. Potential improvements for their functions, including interconnection, shall be formalised.
Animal welfare	Out of scope	/
Antimicrobial resistance	Out of scope	/
Plant health	High contribution	The certification contains the following requirements: - In the context of defence techniques, the Organisation adopts an integrated production or the biological system, complying with recommendations and limitations of use. - The Organisation adopts monitoring systems or predictive models for controlling diseases and parasites.
Human health	Limited contribution	The certification contains requirements on a limited use of pesticides. The certification focuses on PDO wines (quality products).

Global G.A.P Integrated Farm Assurance (IFA)

Sustainability objective	Level of contribution	Justification
Farmers' position value chain	Out of scope	
Climate change mitigation	Limited contribution	There is a minor must for monitoring on-farm energy use, and for farming equipment to be selected and maintained for optimum energy consumption. NB: V6 of IFA standard, to be published in april 2022, should include "New and updated sustainability criteria on topics such as plastics, waste, carbon neutrality, deforestation, and animal welfare"
Climate change adaptation	Limited contribution	This is not explicitly addressed by IFA standard. However, the standard recommends to use the correct irrigation method based on crop, soil, climate to prevent erosion, leaching, evaporative losses. It is recommended to include climate data into the on-farm water management plan (information concerning the precipitation and temperature and the reference evapotranspiration throughout the year to make informed decision on irrigated agriculture. This is likely to contribute facing droughts and other extreme weather events.
Prod. sustainable energy	Limited contribution (optional)	According to IFA standard, "the use of renewable energies should be encouraged" in the farm plan to improve energy efficiency on the farm but this is only a recommendation. NB: V6 of IFA standard, to be published in april 2022, should include "New and updated sustainability criteria on topics such as plastics, waste, carbon neutrality, deforestation, and animal welfare"
Sustainable management of resources	High contribution	The standard includes good agriculture practices for water and soil management. The requirements mostly ensure "responsible on-farm management" through compliance with legislation, controls, risk assessment and action plan to ensure efficient use and application of PPPs and fertilisers.
Protection of biodiv., habitats, landscape, ecosystem services	Limited contribution	There is a whole section of the standard on integrated pest management, but the level of requirements is limited: evidence of implementing activities for the prevention, monitoring and intervention of pests attacks. Other impacts of farming on the environment and biodiversity are addressed, but compliance criteria are "minor must" or "recommendation", asking for wildlife management and conservation plan, identification of actions to enhance biodiversity on-farm etc, without output-based requirements.
Animal welfare	Out of scope	
Antimicrobial resistance	Out of scope	
Plant health	Limited contribution	The standard includes a "minor must" for a plant health quality control system operational for in-house nursery propagation. Integrated Pest Management Guidelines include the choice of optimal, resistant varieties as a possible preventive measure.
Human health	High contribution	The standard includes a full section on workers' health, safety and welfare, with mandatory requirements regarding evidence of qualification for operating hazardous substances, suitable protective clothing, prevention of contamination of personal clothing, access to basic welfare services... There is also a full section on hygiene and food safety requirements, regarding

		implementation of hygiene procedures, demonstrated workers' competence, prevention of food products contamination... Other requirements: information regarding the maximum residue levels to ensure compliance with legislation of the country of destination.
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ANNEX 8 - MAPPING OF CERTIFICATION SCHEMES WITH NEW CONDITIONALITY STANDARDS (SMRS AND GAECS)

Haute Valeur Environnementale (HVE) – voie A

Main issue	Requirements and standards		Contribution	Justification
Climate change (mitigation of and adaptation to)	GAEC 1	Maintenance of permanent grassland based on a ratio of permanent grassland in relation to agricultural area at national, regional, subregional, group-of-holdings or holding level in comparison to the reference year 2018 Maximum decrease of 5 % compared to the reference year	= or + (option)	Level 1 of environmental certification, which is a pre-requisite to level 3/HVE, requires farmers to comply with CAP conditionality, including GAEC. HVE standard scoring calculation includes items on the share of permanent grassland (up to 10 points under the "biodiversity indicator" if 100% of the UAA is in permanent grassland).
	GAEC 2	Protection of wetland and peatland	= or + (option)	Level 1 of environmental certification, which is a pre-requisite to level 3/HVE, requires farmers to comply with CAP conditionality, including GAEC. HVE standard scoring calculation includes items on the share of wetlands and ponds in total UAA under the "biodiversity indicator".
	GAEC 3	Ban on burning arable stubble, except for plant health reasons	=	Level 1 of environmental certification, which is a pre-requisite to level 3/HVE, requires farmers to comply with CAP conditionality, including GAEC.
Water	SMR 1	Directive 2000/60/EC of 23 October 2000 of the European Parliament and of the Council establishing a framework for Community action in the field of water policy (OJ L 327, 22.12.2000, p. 1): Article 11(3), point (e), and point (h), as regards mandatory requirements to control diffuse sources of pollution by phosphates	+	Level 1 of environmental certification, which is a pre-requisite to level 3/HVE, requires farmers to comply with CAP conditionality. Besides, HVE standard scoring calculation includes a mandatory indicator on irrigation management with at least one item validated among the following: the share of water withdrawal during low-water periods, use of decision support tools, agronomic practices implemented to save water etc. Water irrigation items include the share of irrigation water that is recycled or treated before discharge to the environment. Fertilization items include the use of fertilizers that limit discharge due to drainage, and scoring of the nitrogen balance.
	SMR 2	Council Directive 91/676/EEC of 12 December 1991 concerning the protection of waters against pollution caused by nitrates from agricultural sources (OJ L 375, 31.12.1991, p. 1): Articles 4 and 5	+	Level 1 of environmental certification, which is a pre-requisite to level 3/HVE, requires farmers to comply with CAP conditionality. Besides, HVE standard scoring calculation includes a mandatory indicator on fertilization management, covering items such as: - value of the nitrogen balance - Use of decision support tools (DST) - Percentage of UAA not fertilised - Soil cover - recycling and treatment of irrigation water before discharge in the environment

	GAEC 4	Establishment of buffer strips along water courses (minimum width of 3 meters without using pesticides and fertilisers)	= or + (option)	Level 1 of environmental certification, which is a pre-requisite to level 3/HVE, requires farmers to comply with CAP conditionality, including GAEC. Besides, HVE standard scoring calculation includes items on: - the share of UAA involved in the AECM "COUVER_06" = Creation and maintenance of a perennial grass cover (grass strips or plots) - the share of total UAA covered by IAE including Watercourse buffer strips and perennial grassed buffer strips outside watercourses
Soil (protection and quality)	GAEC 5	Tillage management, reducing the risk of soil degradation and erosion, including consideration of the slope gradient	=	Level 1 of environmental certification, which is a pre-requisite to level 3/HVE, requires farmers to comply with CAP conditionality, including GAEC.
	GAEC 6	Minimum soil cover to avoid bare soil in periods that are most sensitive	= or + (option)	Level 1 of environmental certification, which is a pre-requisite to level 3/HVE, requires farmers to comply with CAP conditionality, including GAEC. And HVE standard scoring calculation for fertilization management includes an items on the percentage of the UAA covered in mid-November. Beyond GAEC 6, optional items include: - the share of UAA involved in the AECM "COUVER_06" = Creation and maintenance of a perennial grass cover (grass strips or plots) - the share of UAA involved in the AECM "PHYTO_08 - INSTALLATION OF A VEGETABLE OR BIODEGRADABLE MULCH ON MARKET GARDENING CROPS"
	GAEC 7	Crop rotation in arable land, except for crops growing under water	= or + (option)	Level 1 of environmental certification, which is a pre-requisite to level 3/HVE, requires farmers to comply with CAP conditionality, including GAEC. Besides, HVE standard scoring calculation for fertilization management includes items on: - the share of UAA involved in the AECM "PHYTO_09: Diversity of crop succession in specialised crops"
Biodiversity and landscape (protection and quality)	SMR 3	Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds (OJ L 20, 26.1.2010, p. 7): Article 3(1), Article 3(2), point (b), Article 4(1), (2) and (4)	= or + (option)	Level 1 of environmental certification, which is a pre-requisite to level 3/HVE, requires farmers to comply with CAP conditionality. Besides, HVE standard scoring calculation for Biodiversity includes items that are favorable to wild birds: share of total UAA covered by agroecological infrastructures, including "Permanent grasslands, moors, pastures, alpine meadows, mountain pastures located in Natura 2000 area", land lying fallow (constant fallow, Honey or bee fallows, wildlife fallows, flowering fallows) and other non-productive elements: perennial grassed buffer strips, peatlands, Herbaceous areas set aside and removed from production (no mowing or grazing and favorable to the development of bushes and brambles), hedges, isolated trees...
	SMR 4	Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild flora and fauna (OJ L 206, 22.7.1992, p. 7): Article 6(1) and (2)	= or + (option)	Level 1 of environmental certification, which is a pre-requisite to level 3/HVE, requires farmers to comply with CAP conditionality. Besides, HVE standard scoring calculation for Biodiversity includes an item on the share of total UAA covered by agroecological infrastructures, including "Permanent grasslands, moors, pastures, alpine meadows, mountain pastures located in Natura 2000 area"

	GAEC 8	<p>Minimum share of agricultural area devoted to non-productive areas or features</p> <ul style="list-style-type: none"> - Minimum share of at least 4 % of arable land at farm level devoted to non-productive areas and features, including land lying fallow. - Where a farmer commits to devote at least 7 % of his/her arable land to non-productive areas or features, including land lying fallow, under an enhanced eco-scheme in accordance with Article 31(6), the share to be attributed to compliance with this GAEC standard shall be limited to 3 %. - Minimum share of at least 7 % of arable land at farm level if this includes also catch crops or nitrogen fixing crops, cultivated without the use of plant protection products, of which 3 % shall be land lying fallow or non-productive features. <p>Member States should use the weighting factor of 0,3 for catch crops.</p>	= or + (option)	<p>Level 1 of environmental certification, which is a pre-requisite to level 3/HVE, requires farmers to comply with CAP conditionality, including GAEC.</p> <p>The standard scoring calculation for Biodiversity includes an item on the share of total UAA covered by agroecological infrastructures, including land lying fallow and other non-productive elements.</p> <p>Scoring points are granted for a share of UAA > 5%</p>
		Retention of landscape features	= or + (option)	<p>Level 1 of environmental certification, which is a pre-requisite to level 3/HVE, requires farmers to comply with CAP conditionality, including GAEC.</p> <p>Besides, the HVE standard scoring calculation for Biodiversity includes an item on the share of total UAA covered by agroecological infrastructures, including peatlands, ponds, hedges, isolated trees...</p> <p>Scoring points are granted for a share of UAA > 5%</p>
		Ban on cutting hedges and trees during the bird breeding and rearing season	=	Level 1 of environmental certification, which is a pre-requisite to level 3/HVE, requires farmers to comply with CAP conditionality, including GAEC.
		As an option, measures for avoiding invasive plant species	= or + (option)	<p>Level 1 of environmental certification, which is a pre-requisite to level 3/HVE, requires farmers to comply with CAP conditionality, including GAEC.</p> <p>Besides, the HVE standard specifies that, when accounting for Watercourse buffer strips, other perennial grassed buffer strips, and vegetated strips of spontaneous or planted cover along Field edges, "the planting of of invasive species is prohibited."</p>
	GAEC 9	Ban on converting or ploughing permanent grassland designated as environmentally-sensitive permanent grasslands in Natura 2000 sites	=	Level 1 of environmental certification, which is a pre-requisite to level 3/HVE, requires farmers to comply with CAP conditionality, including GAEC.

Food safety	SMR 5	Regulation (EC) No 178/2002 of the European Parliament and of the Council of 28 January 2002 laying down the general principles and requirements of food law, establishing the European Food Safety Authority and laying down procedures in matters of food safety (OJ L 31, 1.2.2002, p. 1): Articles 14 and 15, Article 17(1)1 and Articles 18, 19 and 20	=	'Level 1 of environmental certification, which is a pre-requisite to level 3/HVE, requires farmers to comply with CAP conditionality,
	SMR 6	Council Directive 96/22/EC of 29 April 1996 concerning the prohibition on the use in stockfarming of certain substances having a hormonal or thyrostatic action and beta-agonists, and repealing Directives 81/602/EEC, 88/146/EEC and 88/299/EEC (OJ L 125, 23.5.1996, p. 3): Article 3, points (a), (b), (d) and (e), and Articles 4, 5 and 7	=	Level 1 of environmental certification, which is a pre-requisite to level 3/HVE, requires farmers to comply with CAP conditionality.
Plant protection products	SMR 7	Regulation (EC) No 1107/2009 of the European Parliament and of the Council of 21 October 2009 concerning the placing of plant protection products on the market and repealing Council Directives 79/117/EEC and 91/414/EEC (OJ L 309, 24.11.2009, p. 1): Article 55, first and second sentence	= or + (option)	Level 1 of environmental certification, which is a pre-requisite to level 3/HVE, requires farmers to comply with CAP conditionality. Besides, HVE standard scoring calculation for the Phytosanitary strategy includes an item on the conditions of application of treatments, aiming at limiting their release in the environment. The list of materials or equipment that can be taken into account have performances that go beyond the regulatory requirements.
	SMR 8	Directive 2009/128/EC of the European Parliament and of the Council of 21 October 2009 establishing a framework for Community action to achieve the sustainable use of pesticides (OJ L 309, 24.11.2009, p. 71): Article 5(2) and Article 8(1) to (5) Article 12 with regard to restrictions on the use of pesticides in protected areas defined on the basis of Directive 2000/60/EC and Natura 2000 legislation Article 13(1) and (3) on handling and storage of pesticides and disposal of remnants	= or + (option)	Level 1 of environmental certification, which is a pre-requisite to level 3/HVE, requires farmers to comply with CAP conditionality. Besides, /HVE standard scoring calculation includes items on: - the use of materials or equipment that go beyond the regulatory requirements for limiting their release in the environment - the share of irrigation water that is recycled or treated before discharge to the environment. - the share of UAA involved in AEM aiming at reducing the consumption of plant protection products
Animal welfare	SMR 9	Council Directive 2008/119/EC of 18 December 2008 laying down minimum standards for the protection of calves (OJ L 10, 15.1.2009, p. 7): Articles 3 and 4	=	Level 1 of environmental certification, which is a pre-requisite to level 3/HVE, requires farmers to comply with CAP conditionality.
	SMR 10	Council Directive 2008/120/EC of 18 December 2008 laying down minimum standards for the	=	Level 1 of environmental certification, which is a pre-requisite to level 3/HVE, requires farmers to comply with CAP conditionality.

		protection of pigs (OJ L 47, 18.2.2009, p. 5): Articles 3 and 4		
	SMR 11	Council Directive 98/58/EC of 20 July 1998 concerning the protection of animals kept for farming purposes (OJ L 221, 8.8.1998, p. 23): Article 4	=	Level 1 of environmental certification, which is a pre-requisite to level 3/HVE, requires farmers to comply with CAP conditionality.

Integrowana Produkcja

Main issue	Requirements and standards		Contribution	Justification
Climate change (mitigation of and adaptation to)	GAEC 1	Maintenance of permanent grassland based on a ratio of permanent grassland in relation to agricultural area at national, regional, subregional, group-of-holdings or holding level in comparison to the reference year 2018 Maximum decrease of 5 % compared to the reference year	/	In order for Integrated Plant Production System to effectively contribute achieving the objectives of the "Farm to Fork" strategy, the Minister has deemed it necessary to review the requirements of the integrated plant production system methodologies, specifically with a view to introduce mandatory measures for the preservation of biodiversity. The only available proposal of reviewed methodology, for apple production, includes a requirement on "Establishment of appropriate conditions for the development and protection of beneficial organisms (e.g. hedgerow management in the midfield, shrubs)" but does not specify anything on grassland.
	GAEC 2	Protection of wetland and peatland	/	
	GAEC 3	Ban on burning arable stubble, except for plant health reasons	/	
Water	SMR 1	Directive 2000/60/EC of 23 October 2000 of the European Parliament and of the Council establishing a framework for Community action in the field of water policy (OJ L 327, 22.12.2000, p. 1): Article 11(3), point (e), and point (h), as regards mandatory requirements to control diffuse sources of pollution by phosphates	-	The certification does not cover the management of plant irrigation. There is only a recommendation in the checklist for field vegetable crops for farms to have an irrigation system for optimal water use. The standard does not appear to address pollution by phosphates, although the checklist for broccoli cultivation includes a criterion on "a fertilization based on the real needs in nutrients of the plants, determined in particular by the analysis of the soil or the plants".
	SMR 2	Council Directive 91/676/EEC of 12 December 1991 concerning the protection of waters against pollution caused by nitrates from agricultural sources (OJ L 375, 31.12.1991, p. 1): Articles 4 and 5	=	The standard recalls the legal requirements of the Regulation of the Council of Ministers on the adoption of the "Programme of measures to reduce pollution of waters by nitrates from agricultural sources and to prevent further pollution" of 12 February 2020. (Journal of Laws of 2020, item 243) regarding fertilizers' use, storage and method of calculation for the maximum application rate of nitrogen mineral fertilizers and to help determine the amount of nitrogen acting on plants from other sources. Plant analysis are required to comply with the limit maximum residues of nitrates.
	GAEC 4	Establishment of buffer strips along water courses (minimum width of 3 meters without using pesticides and fertilisers)	=	"Protection of the aquatic environment and drinking water resources from the effects of pesticides should be realized by the establishment of buffer zones to limit water exposure to spray drift, seepage and run-off". The checklist for field vegetable crops includes a requirement for the manufacturer to comply with the label provisions concerning environmental precautions, e.g. maintaining protection zones and safe distances from unused agricultural land.

Soil (protection and quality)	GAEC 5	Tillage management, reducing the risk of soil degradation and erosion, including consideration of the slope gradient	+	<p>Hop cultivation methodologies include:</p> <ul style="list-style-type: none"> - avoid locations on slopes that are steeper than 2% for hop cultivation - In situations where the slope is steeper, plant the hop plants so that the rows run across the slope. This prevents the soil from being permanently moved down the slope by the action of tools and agricultural machinery, reduces the intensity of water erosion and makes it easier to retain more water in the soil. It is also recommended to cultivate plants for green manure in the interrows of hops. From the point of view of erosion protection, a rye berm is the most advantageous, as its protective effect extends over a period of 7-8 months. - Before planting broccoli, the soil should be prepared with a cultivating unit (cultivator + string roller, pipe roller, tooth harrow or spear harrow, depending on the type and current state of the soil) or with a cultivating and sowing unit (allows simultaneous and uniform seeding of fertilizers). The use of combined machines reduces the number of passes, which limits the negative impact on the soil structure and reduces the time and cost of treatment - Winter plowing is done in the fall and recorded in the integrated production book.
	GAEC 6	Minimum soil cover to avoid bare soil in periods that are most sensitive	-	Example of recommendation: it is recommended to cultivate plants for green manure in the interrows of hops. From the point of view of erosion protection, a rye berm is the most advantageous, as its protective effect extends over a period of 7-8 months.
	GAEC 7	Crop rotation in arable land, except for crops growing under water	+	<p>Example of recommendation:</p> <ul style="list-style-type: none"> - When planning crop rotation, a minimum 4-year break should be maintained when growing broccoli after itself or other brassica vegetables (including cauliflower, head cabbage, Brussels sprouts, kale). If a high incidence of soil pests is observed, species of plants that are not very attractive in terms of food, such as mustard, buckwheat, rapeseed, flax, should be included in the crop rotation. - A crop rotation that includes cultivation of brassica crops should take into account: a minimum 4-year rotation of plants, cultivation of catch crops, cultivation of plants from the faba bean family, leek, cucumber, spring cereals, grasses, resistant varieties of brassica plants to cabbage syphilis and other diseases of infectious origin
Biodiversity and landscape (protection and quality)	SMR 3	Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds (OJ L 20, 26.1.2010, p. 7): Article 3(1), Article 3(2), point (b), Article 4(1), (2) and (4)	nd	The new standard requires the implementation of measures promoting biological diversity within and around the farm, to create conditions that are favorable for natural control of pests (creation of "buffer zones" where plant species providing large quantities of nectar and pollen are grown next to the crop, providing sugars and proteins necessary for the development of insects, introduction of nest boxes, trees and bushes for entomophagous insect remnants etc.). But provisions of the directive 2009/147/EC are not explicitly mentioned.
	SMR 4	Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild flora and fauna (OJ L 206, 22.7.1992, p. 7): Article 6(1) and (2)	nd	The new standard requires the implementation of measures promoting biological diversity within and around the farm, to create conditions that are favorable for natural control of pests (creation of "buffer zones" where plant species providing large quantities of nectar and pollen are grown next to the crop, providing sugars and proteins necessary for the development of insects, introduction of nest boxes, trees and bushes for entomophagous insect remnants etc.). But provisions of the directive 92/43/EEC are not explicitly mentioned.

	GAEC 8	Minimum share of agricultural area devoted to non-productive areas or features - Minimum share of at least 4 % of arable land at farm level devoted to non-productive areas and features, including land lying fallow. - Where a farmer commits to devote at least 7 % of his/her arable land to non-productive areas or features, including land lying fallow, under an enhanced eco-scheme in accordance with Article 31(6), the share to be attributed to compliance with this GAEC standard shall be limited to 3 %. - Minimum share of at least 7 % of arable land at farm level if this includes also catch crops or nitrogen fixing crops, cultivated without the use of plant protection products, of which 3 % shall be land lying fallow or non-productive features. Member States should use the weighting factor of 0,3 for catch crops.	-	The new standard requires the implementation of measures promoting biological diversity within and around the farm (creation of "buffer zones", introduction of nest boxes, trees and bushes) but does not set a mandatory minimum share of area devoted to them.
		Retention of landscape features	nd	The new standard requires the implementation of measures favorable to the development and protection of beneficial organisms, including trees and bushes on the field edge. But there is no explicit requirement for the retention of landscape features.
		Ban on cutting hedges and trees during the bird breeding and rearing season	-	No mention of such requirement. But specifications include: - placing poles with a crossbar in orchards for birds of prey - hanging nesting boxes in orchards - leaving bushes around and outside the orchard. Bushes and shrubs between orchards, as well as within the orchard, are refuges for beneficial insects and birds, which find shelter there.
		As an option, measures for avoiding invasive plant species	/	No mention of such requirement.
Food safety	GAEC 9	Ban on converting or ploughing permanent grassland designated as environmentally-sensitive permanent grasslands in Natura 2000 sites	/	No mention of such requirement.
	SMR 5	Regulation (EC) No 178/2002 of the European Parliament and of the Council of 28 January 2002 laying down the general principles and requirements of food law, establishing the European Food Safety Authority and laying down procedures in matters of food safety (OJ L 31,	+	The standard provides many hygiene and sanitary rules (for workers, for the preparation of products to sale, in the processing, transport, packaging equipment, for the storage of waste and hazardous materials...) The IP system is a method of growing plants that takes into account the sustainable use of pesticides and guarantees food safety. The basis of the IP system is integrated plant protection. The producer in the IP system is subject to strict controls carried out by certification bodies. As part of these controls in min. 20% of IP farms, plant samples are collected for the testing of exceeded levels of plant protection residues and levels of nitrates, nitrites and heavy metals.

		1.2.2002, p. 1): Articles 14 and 15, Article 17(1)1 and Articles 18, 19 and 20		
	SMR 6	Council Directive 96/22/EC of 29 April 1996 concerning the prohibition on the use in stockfarming of certain substances having a hormonal or thyrostatic action and beta-agonists, and repealing Directives 81/602/EEC, 88/146/EEC and 88/299/EEC (OJ L 125, 23.5.1996, p. 3): Article 3, points (a), (b), (d) and (e), and Articles 4, 5 and 7	/	
Plant protection products	SMR 7	Regulation (EC) No 1107/2009 of the European Parliament and of the Council of 21 October 2009 concerning the placing of plant protection products on the market and repealing Council Directives 79/117/EEC and 91/414/EEC (OJ L 309, 24.11.2009, p. 1): Article 55, first and second sentence	+	IP scheme has a more limited range of authorized plant protection products than legislation.
	SMR 8	Directive 2009/128/EC of the European Parliament and of the Council of 21 October 2009 establishing a framework for Community action to achieve the sustainable use of pesticides (OJ L 309, 24.11.2009, p. 71): Article 5(2) and Article 8(1) to (5) Article 12 with regard to restrictions on the use of pesticides in protected areas defined on the basis of Directive 2000/60/EC and Natura 2000 legislation Article 13(1) and (3) on handling and storage of pesticides and disposal of remnants	+	IP is perceived as the basic tool of CAP Strategic Plan for achieving the reduction targets concerning use of products plant protection and risk connected with the use of such products. The IP system is based on the principles of IPM, but goes far beyond these principles (IP guidelines contain also requirements that are not obligatory for farmers producing out of the system). For this reason, participation in the system guarantees compliance with the provisions of generally applicable law in the field of plant protection
Animal welfare	SMR 9	Council Directive 2008/119/EC of 18 December 2008 laying down minimum standards for the protection of calves (OJ L 10, 15.1.2009, p. 7): Articles 3 and 4	/	
	SMR 10	Council Directive 2008/120/EC of 18 December 2008 laying down minimum standards for the protection of pigs (OJ L 47, 18.2.2009, p. 5): Articles 3 and 4	/	

	SMR 11	Council Directive 98/58/EC of 20 July 1998 concerning the protection of animals kept for farming purposes (OJ L 221, 8.8.1998, p. 23): Article 4	/	
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IP Sigill-certifierad and Svenskt Sigill-märke

Main issue	Requirements and standards		Contribution	Justification
Climate change (mitigation of and adaptation to)	GAEC 1	Maintenance of permanent grassland based on a ratio of permanent grassland in relation to agricultural area at national, regional, subregional, group-of-holdings or holding level in comparison to the reference year 2018 Maximum decrease of 5 % compared to the reference year	/ or + (+ for the option Natural Pasture Beef)	IP SIGILL general standards does not provide requirements regarding the maintenance of permanent grasslands. However, the option Natural Pasture Beef Certified that can be implemented in addition to the IP SIGILL standard, includes some specification regarding the maintenance of 50% of permanent pasture at least.
	GAEC 2	Protection of wetland and peatland	+	IP SIGILL general standards require that environment features which are particularly important for the biodiversity should be protected: - Avenues (including root systems) - Single trees on farmland - Water sources with surrounding wetland - Small waters and wetlands (incl. watercourses and open ditches which are not constructed roadside ditches) - Clearance cairns - Avenue with knotted willow trees - Stone walls - Non-arable outcrops for combinable crops (11.2.S for cattle and 3.5.S for combinable crops)
	GAEC 3	Ban on burning arable stubble, except for plant health reasons	/	
Water	SMR 1	Directive 2000/60/EC of 23 October 2000 of the European Parliament and of the Council establishing a framework for Community action in the field of water policy (OJ L 327, 22.12.2000, p. 1): Article 11(3), point (e), and point (h), as regards mandatory requirements to control diffuse sources of pollution by phosphates	+	IP SIGILL standards provides rules that imply for farmers: - to monitor and record the application of fertilizer (4.2.5.S) - to calculate the nutrient balance, (4.2.6.s) - to define a detailed crop and fertilization plan that shows the amount of fertiliser added in the pedo-climatic conditions. (4.4.2.S) Regarding phosphate, IP SIGILL requires that livestock manure and other organic fertilisation may not contribute greater than 22 kg eq. of total phosphorus per hectare of dispersion (calculated as an average on a five-year period; 4.4.5).
	SMR 2	Council Directive 91/676/EEC of 12 December 1991 concerning the protection of waters against pollution caused by nitrates from agricultural sources (OJ L 375, 31.12.1991, p. 1): Articles 4 and 5	+	IP SIGILL standards provides rules that imply for farmers: - to monitor and record the application of fertilizer (4.2.5.S) - to calculate the nutrient balance, (4.2.6.s) - to define a detailed crop and fertilization plan that shows the amount of fertiliser added in the pedo-climatic conditions. (4.4.2.S) IP SIGILL provides specific restrictions regarding the amount of nitrogen easily accessible to apply: no more than 60 kg/ha for the autumn sowing of oilseeds and no more than 40 kg/ha for the autumn sowing of cereals and other crops.(4.4.10)

	GAEC 4	Establishment of buffer strips along water courses (minimum width of 3 meters without using pesticides and fertilisers)	+	<p>IP SIGILL standards provides rules that imply the establishment of permanent protection zone set up alongside open water on nitrate sensitive areas. (it applies to lakes and watercourses that are water-bearing throughout the year, except when the parcel under 3 of 5 years is cultivated with pasture). (3.4).</p> <p>Regarding PPP, the following safety distances should be respected (4.9.1.S):</p> <ul style="list-style-type: none"> - at least 12 m safety distance is kept to water sources. - at least 6 m safety distance is kept to lakes and water sources that are water-bearing throughout the year (counting from the shoreline at high tide) and small water. - at least 2 m safety distance is held to drainage wells/stone traps and smaller ditches.
Soil (protection and quality)	GAEC 5	Tillage management, reducing the risk of soil degradation and erosion, including consideration of the slope gradient	-	IP SIGILL requires to build adapted zones on erosion-prone soils, or soils that are at risk of flooding (e.g. soil in connection with surface water wells or weaknesses in arable land) including seed mixture and prohibition of trimming or harvesting before 1 July. Ploughing too close to ditches and ponds is prohibited to avoid erosion.
	GAEC 6	Minimum soil cover to avoid bare soil in periods that are most sensitive	-	IP SIGILL requires to build adapted zones on erosion-prone soils, or soils that are at risk of flooding, including seeding of seed mixture. In fruit cultivation, the surface area of bare ground shall not exceed 50% of the total surface or 50% of the entire tree crown's width.
	GAEC 7	Crop rotation in arable land, except for crops growing under water	-	<p>IP SIGILL standards requires to establish crop rotation while applying integrated pest management strategy. (4.10.1.s). Well-developed crop rotation (under normal conditions) means for cereals, cultivation for a maximum of 4 out of 6 years or 5 of 6 years if oats are included in the crop rotation.</p> <p>GAEC 8 requires that rotation shall consist in a change of crop at least once a year at land parcel level.</p>
Biodiversity and landscape (protection and quality)	SMR 3	Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds (OJ L 20, 26.1.2010, p. 7): Article 3(1), Article 3(2), point (b), Article 4(1), (2) and (4)	=	IP SIGILL requires that Habitats especially important for the biological diversity shall be protected from damage such as clearing of trenches during the period from April to June, because amphibians and birds can be harmed from this, or harmful driving over or too close protected habitats.
	SMR 4	Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild flora and fauna (OJ L 206, 22.7.1992, p. 7): Article 6(1) and (2)	=	<p>IP SIGILL general standards require that environment features which are particularly important for the biodiversity should be protected:</p> <ul style="list-style-type: none"> - Avenues (including root systems) - Single trees on farmland - Water sources with surrounding wetland - Small waters and wetlands (incl. watercourses and open ditches which are not constructed roadside ditches) - Clearance cairns - Avenue with knotted willow trees - Stone walls - Non-arable outcrops for combinable crops (11.2.S for cattle and 3.5.S for combinable crops) <p>The company shall produce a map showing sites included as part of protection and maintenance measures (landscape features, biotopes and wild flora) and which the company shall take into consideration during its operation.</p>

	GAEC 8	<p>Minimum share of agricultural area devoted to non-productive areas or features</p> <ul style="list-style-type: none"> - Minimum share of at least 4 % of arable land at farm level devoted to non-productive areas and features, including land lying fallow. - Where a farmer commits to devote at least 7 % of his/her arable land to non-productive areas or features, including land lying fallow, under an enhanced eco-scheme in accordance with Article 31(6), the share to be attributed to compliance with this GAEC standard shall be limited to 3 %. - Minimum share of at least 7 % of arable land at farm level if this includes also catch crops or nitrogen fixing crops, cultivated without the use of plant protection products, of which 3 % shall be land lying fallow or non-productive features. Member States should use the weighting factor of 0,3 for catch crops. 	/	
		Retention of landscape features	=	<p>IP SIGILL general standards require that environment features which are particularly important for the biodiversity should be protected:</p> <ul style="list-style-type: none"> - Avenues (including root systems) - Single trees on farmland - Water sources with surrounding wetland - Small waters and wetlands (incl. watercourses and open ditches which are not constructed roadside ditches) - Clearance cairns - Avenue with knotted willow trees - Stone walls - Non-arable outcrops for combinable crops (11.2.S for cattle and 3.5.S for combinable crops)
		Ban on cutting hedges and trees during the bird breeding and rearing season	=	IP SIGILL requires to protect habitats that are important for the biodiversity from damage such as felling of trees in avenue, and clearing of trenches during the period from April to June, because amphibians and birds can be harmed from this.
		As an option, measures for avoiding invasive plant species	/	
	GAEC 9	Ban on converting or ploughing permanent grassland designated as environmentally-sensitive permanent grasslands in Natura 2000 sites	=	The company shall produce a map showing sites included as part of protection and maintenance measures (landscape features, biotopes and wild flora) and which the company shall take into consideration during its operation.

Food safety	SMR 5	Regulation (EC) No 178/2002 of the European Parliament and of the Council of 28 January 2002 laying down the general principles and requirements of food law, establishing the European Food Safety Authority and laying down procedures in matters of food safety (OJ L 31, 1.2.2002, p. 1): Articles 14 and 15, Article 17(1)1 and Articles 18, 19 and 20	=	IP SIGILL general standards provides rules regarding traceability (7.3.S)
	SMR 6	Council Directive 96/22/EC of 29 April 1996 concerning the prohibition on the use in stockfarming of certain substances having a hormonal or thyrostatic action and beta-agonists, and repealing Directives 81/602/EEC, 88/146/EEC and 88/299/EEC (OJ L 125, 23.5.1996, p. 3): Article 3, points (a), (b), (d) and (e), and Articles 4, 5 and 7	=	IP SIGILL requires the feed use for cattle is free from harmful bacteria, antibiotics, hormones, mycotoxins, heavy metals and chemical pollutions.
Plant protection products	SMR 7	Regulation (EC) No 1107/2009 of the European Parliament and of the Council of 21 October 2009 concerning the placing of plant protection products on the market and repealing Council Directives 79/117/EEC and 91/414/EEC (OJ L 309, 24.11.2009, p. 1): Article 55, first and second sentence	=	IP SIGILL requires that only plant protection products registered and approved nationally may be considered. They shall be used according to the instructions on the label, where also the terms of use are included.
	SMR 8	Directive 2009/128/EC of the European Parliament and of the Council of 21 October 2009 establishing a framework for Community action to achieve the sustainable use of pesticides (OJ L 309, 24.11.2009, p. 71): Article 5(2) and Article 8(1) to (5) Article 12 with regard to restrictions on the use of pesticides in protected areas defined on the basis of Directive 2000/60/EC and Natura 2000 legislation Article 13(1) and (3) on handling and storage of pesticides and disposal of remnants	+	Integrated Pest management is applied (3.1) There are strategies to avoid weed, disease and pest resistance to herbicides, fungicides (3.2) There is a system in place for monitoring and recording pests (including vertebrate), disease, weed levels and beneficial predatory species. The system is used to decide when to apply plant protection products (PPPs)(3.3)
Animal welfare	SMR 9	Council Directive 2008/119/EC of 18 December 2008 laying down minimum standards for the protection of calves (OJ L 10, 15.1.2009, p. 7): Articles 3 and 4	+	IP SIGILL standards is based on Swedish Animal Welfare Act. IP SIGILL standards provides specific provisions regarding calving and the care of calves, the environment, the access to feed and water (4.10; 5.1;5.2;5.3)

	SMR 10	Council Directive 2008/120/EC of 18 December 2008 laying down minimum standards for the protection of pigs (OJ L 47, 18.2.2009, p. 5): Articles 3 and 4	+	<p>IP SIGILL standards is based on Swedish Animal Welfare Act.</p> <p>IP SIGILL standards provides additional provisions regarding pigs:</p> <ul style="list-style-type: none"> - respect of the pig behavioural need regarding farrowing (4.3.1) - ban of docking of tails 4.4) - restriction on castration (7.1.1.S) - good environment and feed and water access...
	SMR 11	Council Directive 98/58/EC of 20 July 1998 concerning the protection of animals kept for farming purposes (OJ L 221, 8.8.1998, p. 23): Article 4	+	<p>IP SIGILL standards is based on Swedish Animal Welfare Act and also provides on additional rules regarding the welfare of farming animals.</p>

Leaf marque

Main issue	Requirements and standards		Contribution	Justification
Climate change (mitigation of and adaptation to)	GAEC 1	Maintenance of permanent grassland based on a ratio of permanent grassland in relation to agricultural area at national, regional, subregional, group-of-holdings or holding level in comparison to the reference year 2018 Maximum decrease of 5 % compared to the reference year	/	
	GAEC 2	Protection of wetland and peatland	-	Leaf requires a documented Landscape and Nature Conservation Audit (including map) (8.1) identifying the key environmental features including wetland and peatland. These environmental features are retained (8.7). Farmers should define a Landscape and Nature Conservation and Enhancement Plan which could improve habitats (8.3) However, there is no clear ban of destroying such environmental features in Leaf standards.
	GAEC 3	Ban on burning arable stubble, except for plant health reasons	/	
Water	SMR 1	Directive 2000/60/EC of 23 October 2000 of the European Parliament and of the Council establishing a framework for Community action in the field of water policy (OJ L 327, 22.12.2000, p. 1): Article 11(3), point (e), and point (h), as regards mandatory requirements to control diffuse sources of pollution by phosphates	+	Leaf requires an implemented Soil Management Plan which includes areas prone to compaction, slumping, erosion, runoff and leaching (2.1) Leaf requires an implemented Manure Management Plan that is integrated with the Nutrient Management Plan (4.2) Leaf requires a Pollution Risk Assessment that identifies, documents and records all potential pollutants on a map. (4.5) Leaf requires a Water management plan including annual review of water efficiency measurements, actions for improvement and plans to increase the percentage of water used from stored sources over direct abstraction.
	SMR 2	Council Directive 91/676/EEC of 12 December 1991 concerning the protection of waters against pollution caused by nitrates from agricultural sources (OJ L 375, 31.12.1991, p. 1): Articles 4 and 5	+	Leaf requires an implemented Soil Management Plan which includes areas prone to compaction, slumping, erosion, runoff and leaching (2.1) Leaf requires an implemented Manure Management Plan that is integrated with the Nutrient Management Plan (4.2). Plan shows emphasis on reducing use (i.e. inorganic inputs and using other substitutes). Leaf requires a Pollution Risk Assessment that identifies, documents and records all potential pollutants on a map. (4.5) Field stores are at least 50 metres away from water bodies where potable water is abstracted
	GAEC 4	Establishment of buffer strips along water courses (minimum width of 3 meters without using pesticides and fertilisers)	-	Precautions are taken to ensure plant protection product (PPP) use is limited to the area in which it is required. Leaf standards recommend methods such as buffer strips or unsprayed strips of at least six metres adjacent to sensitive areas (e.g. watercourses, habitats, and residential and business properties (see 3.20).
Soil (protection and)	GAEC 5	Tillage management, reducing the risk of soil degradation and erosion, including consideration of the slope gradient	nd	Leaf requires an implemented Soil Management Plan which includes areas prone to compaction, slumping, erosion, runoff, and leaching (2.1)

				<p>The risk of soil degradation is assessed prior to operations being carried out to ensure the timing, field conditions, equipment and soil management techniques are appropriate (2.7)</p> <p>But no explicit mention of tillage management taking into account gradient can be found.</p>
Biodiversity and landscape (protection and quality)	GAEC 6	Minimum soil cover to avoid bare soil in periods that are most sensitive	nd	<p>Leaf requires an implemented Soil Management Plan which includes areas prone to compaction, slumping, erosion, runoff, and leaching (2.1)</p> <p>The risk of soil degradation is assessed prior to operations being carried out to ensure the timing, field conditions, equipment and soil management techniques are appropriate (2.7)</p> <p>But no explicit mention of minimum soil cover can be found.</p>
	GAEC 7	Crop rotation in arable land, except for crops growing under water	-	Leaf requires a long-term cropping plan (2.6) over at least 3 years but does not provide obligation to implement crop rotation in arable land.
	SMR 3	Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds (OJ L 20, 26.1.2010, p. 7): Article 3(1), Article 3(2), point (b), Article 4(1), (2) and (4)	+	<p>Nesting birds and wildlife are protected when cutting forage. (5.2)</p> <p>Field operations are adjusted to avoid areas where birds are nesting. (8.20)</p> <p>Nesting habitat and food for farmland birds are provided alongside other activities to enhance the habitat for native fauna. (8.24)</p> <p>Environmentally-sensitive areas, identified in the Landscape and Nature Conservation and Enhancement Plan, are protected and managed appropriately for the identified and targeted species.</p>
	SMR 4	Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild flora and fauna (OJ L 206, 22.7.1992, p. 7): Article 6(1) and (2)	+	<p>Leaf standards require a documented Landscape and Nature Conservation Audit (including map) (8.1) identifying the key environmental features including wetland and peatland. These environmental features are retained (8.7).</p> <p>Farmers should define a Landscape and Nature Conservation and Enhancement Plan which could improve habitats (8.3)</p> <p>Flora and fauna are able to thrive through rotation and leaving land uncropped (8.19)</p> <p>Environmentally-sensitive areas, identified in the Landscape and Nature Conservation and Enhancement Plan, are protected and managed appropriately for the identified and targeted species.</p>
	GAEC 8	<p>Minimum share of agricultural area devoted to non-productive areas or features</p> <ul style="list-style-type: none"> - Minimum share of at least 4 % of arable land at farm level devoted to non-productive areas and features, including land lying fallow. - Where a farmer commits to devote at least 7 % of his/her arable land to non-productive areas or features, including land lying fallow, under an enhanced eco-scheme in accordance with Article 31(6), the share to be attributed to compliance with this GAEC standard shall be limited to 3 %. - Minimum share of at least 7 % of arable land at 	+	<p>There is a minimum of 5% farm area available as appropriate habitats, not used for cropping and food production. (8.23)</p>

Food safety		farm level if this includes also catch crops or nitrogen fixing crops, cultivated without the use of plant protection products, of which 3 % shall be land lying fallow or non-productive features. Member States should use the weighting factor of 0,3 for catch crops.		
		Retention of landscape features	=	Leaf requires a documented Landscape and Nature Conservation Audit (including map) (8.1) identifying the key environmental features including wetland and peatland. These environmental features should be retained (8.7).
		Ban on cutting hedges and trees during the bird breeding and rearing season	+	Field boundary management plans set out in the Landscape and Nature Conservation and Enhancement Plan (see 8.2) observe nesting periods and consider other flora and fauna including pollinating insects In-field trees and trees in boundaries and hedgerows are retained (8.11) Field operations are adjusted to avoid areas where birds are nesting. (8.20); Nesting habitat and food for farmland birds are provided alongside other activities to enhance the habitat for native fauna. (8.24
		As an option, measures for avoiding invasive plant species	/	
	GAEC 9	Ban on converting or ploughing permanent grassland designated as environmentally-sensitive permanent grasslands in Natura 2000 sites	ND	Measures are taken to avoid damage to grassland by livestock and to optimize biodiversity (5.1) Environmentally sensitive areas, identified in the Landscape and Nature Conservation and Enhancement Plan, are protected and managed appropriately (5.6) However, the ban of converting or ploughing Natura 2000 permanent grassland is not clearly mentioned.
	SMR 5	Regulation (EC) No 178/2002 of the European Parliament and of the Council of 28 January 2002 laying down the general principles and requirements of food law, establishing the European Food Safety Authority and laying down procedures in matters of food safety (OJ L 31, 1.2.2002, p. 1): Articles 14 and 15, Article 17(1)1 and Articles 18, 19 and 20	/	
	SMR 6	Council Directive 96/22/EC of 29 April 1996 concerning the prohibition on the use in stockfarming of certain substances having a hormonal or thyrostatic action and beta-agonists, and repealing Directives 81/602/EEC, 88/146/EEC and 88/299/EEC (OJ L 125,	/	

		23.5.1996, p. 3): Article 3, points (a), (b), (d) and (e), and Articles 4, 5 and 7		
Plant protection products	SMR 7	Regulation (EC) No 1107/2009 of the European Parliament and of the Council of 21 October 2009 concerning the placing of plant protection products on the market and repealing Council Directives 79/117/EEC and 91/414/EEC (OJ L 309, 24.11.2009, p. 1): Article 55, first and second sentence	+	<p>There is an implemented Crop Health and Protection Plan. (3.1)</p> <p>There are strategies to avoid weed, disease and pest resistance to herbicides, fungicides (3.2)</p> <p>There is a system in place for monitoring and recording pests (including vertebrate), disease, weed levels and beneficial predatory species. The system is used to decide when to apply plant protection products (PPPs)(3.3)</p>
	SMR 8	Directive 2009/128/EC of the European Parliament and of the Council of 21 October 2009 establishing a framework for Community action to achieve the sustainable use of pesticides (OJ L 309, 24.11.2009, p. 71): Article 5(2) and Article 8(1) to (5) Article 12 with regard to restrictions on the use of pesticides in protected areas defined on the basis of Directive 2000/60/EC and Natura 2000 legislation Article 13(1) and (3) on handling and storage of pesticides and disposal of remnants	+	<p>Leaf recommends a minimum amount of training or professional development for both competent person in charge of PPP recommendations and operators/contractors in charge of the application of PPPs.</p> <p>Plant protection product (PPP) recommendations are made by competent, qualified persons (3.13) who should follow a minimum training of 8 hours / year.</p> <p>Operators/contractors are trained in the use of plant protection products (PPPs) and participate in continuous professional development. (3.14) who should follow a minimum training of at least 3 hours / year.</p>
Animal welfare	SMR 9	Council Directive 2008/119/EC of 18 December 2008 laying down minimum standards for the protection of calves (OJ L 10, 15.1.2009, p. 7): Articles 3 and 4	ND	<p>There is an implemented Livestock Health Plan (5.7) that includes:</p> <ul style="list-style-type: none"> -targets to prevent resistance build-up to veterinary medicines - adoption of non-chemical methods to optimise fertility, production, health and welfare, where relevant - biosecurity <p>However no rules are specified for the protection of calves</p>
	SMR 10	Council Directive 2008/120/EC of 18 December 2008 laying down minimum standards for the protection of pigs (OJ L 47, 18.2.2009, p. 5): Articles 3 and 4	ND	<p>There is an implemented Livestock Health Plan (5.7) that includes:</p> <ul style="list-style-type: none"> -targets to prevent resistance build-up to veterinary medicines - adoption of non-chemical methods to optimise fertility, production, health and welfare, where relevant - biosecurity <p>However no rules are specified for the protection of pigs</p>

	SMR 11	Council Directive 98/58/EC of 20 July 1998 concerning the protection of animals kept for farming purposes (OJ L 221, 8.8.1998, p. 23): Article 4	ND	<p>There is an implemented Livestock Health Plan (5.7) that includes:</p> <ul style="list-style-type: none"> -targets to prevent resistance build-up to veterinary medicines - adoption of non-chemical methods to optimise fertility, production, health and welfare, where relevant - biosecurity <p>However no rules are specified for the protection of animals kept for farming purposes</p>
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Sistema di Qualità Nazionale di Produzione Integrata per le Produzioni Agricole (SQNPI)

Main issue	Requirements and standards		Contribution	Justification
Climate change (mitigation of and adaptation to)	GAEC 1	Maintenance of permanent grassland based on a ratio of permanent grassland in relation to agricultural area at national, regional, subregional, group-of-holdings or holding level in comparison to the reference year 2018 Maximum decrease of 5 % compared to the reference year	/	
	GAEC 2	Protection of wetland and peatland	/	
	GAEC 3	Ban on burning arable stubble, except for plant health reasons	=	"Thatch burning" is explicitly forbidden in National specifications.
Water	SMR 1	Directive 2000/60/EC of 23 October 2000 of the European Parliament and of the Council establishing a framework for Community action in the field of water policy (OJ L 327, 22.12.2000, p. 1): Article 11(3), point (e), and point (h), as regards mandatory requirements to control diffuse sources of pollution by phosphates	+	<p>"The regional specifications should provide for the drafting of an irrigation plan, based on the crop's water balance and the use of efficient irrigation distribution techniques compatible with the characteristics and distribution methods of the collective irrigation systems present on the territory. In general, the use of overhead irrigation is prohibited. The use of flood irrigation is forbidden for new tree crops, except for those supplied by drainage consortia that do not guarantee continuity of supply. In existing tree plantations and herbaceous crops, drip irrigation is only permitted if the necessary precautions are taken to minimise waste.</p> <p>For farms that do not draw up an irrigation plan, the regional specifications determine the maximum reference watering volume for each operation according to the type of soil and require the recording of irrigation and rainfall data;</p>
	SMR 2	Council Directive 91/676/EEC of 12 December 1991 concerning the protection of waters against pollution caused by nitrates from	=	SQNPI standard requires compliance with Council Directive 91/176/EEC: "In nitrate vulnerable zones it is mandatory to respect the maximum annual quantities established in application of Directive 91/676/EEC for P and K as defined in point 10.2".

		agricultural sources (OJ L 375, 31.12.1991, p. 1): Articles 4 and 5		
Soil (protection and quality)	GAEC 4	Establishment of buffer strips along water courses (minimum width of 3 meters without using pesticides and fertilisers)	/	SQNPI standard does not mention any specific measure for water quality protection, such as buffer strips.
	GAEC 5	Tillage management, reducing the risk of soil degradation and erosion, including consideration of the slope gradient	+	SQNPI standard includes specifications for: - soil improvement and preparation for planting and sowing, that must be carried out with the aim of safeguarding and improving soil fertility and avoiding erosion and degradation. - Work should be defined according to the type of soil, the crops concerned, the location, erosion risks and climatic conditions. - The work should contribute to maintaining the structure, encouraging a reduction in the phenomena of compaction, allowing the removal of excess rainwater. Requirements are adjusted depending on the slope of the area (minimum tillage techniques, no-till seeding and scarifying, maximum depth of authorised tillage,...)
	GAEC 6	Minimum soil cover to avoid bare soil in periods that are most sensitive	+	Mandatory inter-row grassing (all year round in tree plantations of hilly and mountainous areas with an average slope between 10% and 30%, in autumn and winter seasons in tree plantations in lowland areas)
	GAEC 7	Crop rotation in arable land, except for crops growing under water	nd	Specifications of the standard on crop rotation: - production units or crop-specific areas must comply with the rotation constraints set out by the regional integrated production directive (restocking, minimum interval of return of the same crop, etc.)
Biodiversity and landscape (protection and quality)	SMR 3	Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds (OJ L 20, 26.1.2010, p. 7): Article 3(1), Article 3(2), point (b), Article 4(1), (2) and (4)	/	The standard requires the implementation of techniques and interventions to enhance biodiversity, including restoration and creation of hedges, artificial nests, water reservoirs, dry stone walls, polyphyte grassing, alternating mowing of rows, etc.
	SMR 4	Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild flora and fauna (OJ L 206, 22.7.1992, p. 7): Article 6(1) and (2)	/	The standard requires the implementation of techniques and interventions to enhance biodiversity, including restoration and creation of hedges, artificial nests, water reservoirs, dry stone walls, polyphyte grassing, alternating mowing of rows, etc.
	GAEC 8	Minimum share of agricultural area devoted to non-productive areas or features - Minimum share of at least 4 % of arable land at farm level devoted to non-productive areas and features, including land lying fallow. - Where a farmer commits to devote at least 7 % of his/her arable land to non-productive areas or features, including land lying fallow, under an enhanced eco-scheme in accordance with	-	The standard requires the implementation of techniques and interventions to enhance biodiversity, including restoration and creation of hedges, artificial nests, water reservoirs, dry stone walls, polyphyte grassing, alternating mowing of rows, etc. But mandatory requirements are laid down in the regional specifications. For example, in Basilica and Emilia-Romagna regions, regional specifications require that at least 5% of the Utilised Agricultural Area (UAA) should be maintained as natural, non-cultivated areas.

		Article 31(6), the share to be attributed to compliance with this GAEC standard shall be limited to 3 %. - Minimum share of at least 7 % of arable land at farm level if this includes also catch crops or nitrogen fixing crops, cultivated without the use of plant protection products, of which 3 % shall be land lying fallow or non-productive features. Member States should use the weighting factor of 0,3 for catch crops.		
		Retention of landscape features	=	The standard requires the implementation of techniques and interventions to enhance biodiversity, including restoration and creation of hedges, artificial nests, water reservoirs, dry stone walls, polyphyte grassing, alternating mowing of rows, etc.
		Ban on cutting hedges and trees during the bird breeding and rearing season	nd	The standard requires the implementation of techniques and interventions to enhance biodiversity (including restoration and creation of hedges, artificial nests, water reservoirs, dry stone walls, polyphyte grassing, alternating mowing of rows, etc.) but does not specify the prohibition of trimming hedges and trees during the nesting and breeding period of birds.
		As an option, measures for avoiding invasive plant species	/	
Food safety	GAEC 9	Ban on converting or ploughing permanent grassland designated as environmentally-sensitive permanent grasslands in Natura 2000 sites	/	
	SMR 5	Regulation (EC) No 178/2002 of the European Parliament and of the Council of 28 January 2002 laying down the general principles and requirements of food law, establishing the European Food Safety Authority and laying down procedures in matters of food safety (OJ L 31, 1.2.2002, p. 1): Articles 14 and 15, Article 17(1)1 and Articles 18, 19 and 20	=	National specifications include the "Compliance with RMA health and hygiene requirements (check of certified analysis)" and "Compliance with the minimum quality requirement for the processed transformed (Verification of the nature and origin of batches)". Other requirements: - Adoption of a system of traceability and completeness of information provided by the system - The operator must demonstrate that he has separated the product in all phases of the product in such a way as to exclude any possible pollution with batches of product not managed within SQNPI - analisi multiresiduali - compliance with sector regulations on prohibited post harvest treatments
	SMR 6	Council Directive 96/22/EC of 29 April 1996 concerning the prohibition on the use in stockfarming of certain substances having a hormonal or thyrostatic action and beta-agonists, and repealing Directives 81/602/EEC, 88/146/EEC and 88/299/EEC (OJ L 125,	/	SQNPI standard only applies to plant production systems.

		23.5.1996, p. 3): Article 3, points (a), (b), (d) and (e), and Articles 4, 5 and 7		
Plant protection products	SMR 7	Regulation (EC) No 1107/2009 of the European Parliament and of the Council of 21 October 2009 concerning the placing of plant protection products on the market and repealing Council Directives 79/117/EEC and 91/414/EEC (OJ L 309, 24.11.2009, p. 1): Article 55, first and second sentence	+	Specifications include compliance with use specifications as laid down on the label of the product used (including through multiresidual analysis). The standard sets up defense strategies that are more restrictive than European legislation on PPPs (regarding the number of treatments, the number of products authorised, the period of application...)
	SMR 8	Directive 2009/128/EC of the European Parliament and of the Council of 21 October 2009 establishing a framework for Community action to achieve the sustainable use of pesticides (OJ L 309, 24.11.2009, p. 71): Article 5(2) and Article 8(1) to (5) Article 12 with regard to restrictions on the use of pesticides in protected areas defined on the basis of Directive 2000/60/EC and Natura 2000 legislation Article 13(1) and (3) on handling and storage of pesticides and disposal of remnants	=	National guidelines have been explicitly designed by taking into account the Directive 128/09/EU on the sustainable use of plant protection products. - Functional and instrumental control of adjustment sprayers - Verify possession of certificate of qualification to purchase and use or service of approved contractors. (ethical and social requirements: 2022 - optional compliance with the provisions of the transitional certification process by operators involved in the post-harvest phases 2023 - compliance with the provisions of the transitional certification will become mandatory) - carry out risk assessment by: - Adoption of the document on the evaluation of Adoption of the workplace risk assessment document (DVR) - Monitoring workplace accidents (adoption of the accident register) - prepare a corporate plan setting out the methods and timing for implementing corporate commitments relating to: training all staff on safety in the workplace and production sustainability
Animal welfare	SMR 9	Council Directive 2008/119/EC of 18 December 2008 laying down minimum standards for the protection of calves (OJ L 10, 15.1.2009, p. 7): Articles 3 and 4	/	SQNPI standard only applies to plant production systems.
	SMR 10	Council Directive 2008/120/EC of 18 December 2008 laying down minimum standards for the protection of pigs (OJ L 47, 18.2.2009, p. 5): Articles 3 and 4	/	SQNPI standard only applies to plant production systems.
	SMR 11	Council Directive 98/58/EC of 20 July 1998 concerning the protection of animals kept for farming purposes (OJ L 221, 8.8.1998, p. 23): Article 4	/	SQNPI standard only applies to plant production systems.

Beter Leven

Main issue	Requirements and standards		Contribution	Justification
Climate change (mitigation and adaptation to)	GAEC 1	Maintenance of permanent grassland based on a ratio of permanent grassland in relation to agricultural area at national, regional, subregional, group-of-holdings or holding level in comparison to the reference year 2018 Maximum decrease of 5 % compared to the reference year	/ or +	The dairy cattle standard provides following requirements: - The percentage of permanent grassland used for dairy farming is at least 25% of the farmland. - Of the total surface area of plots used for dairy farming (owned or leased), at least 10% (low NL) or 5% (high NL) must consist of extensive herb-rich grassland at the start of participation in BLL in 2021. Within 3 years, the surface area must increase to at least 20% (low NL) or 15% (high NL) extensive herb-rich grassland. From 1-1-2023, at least 20% of the total surface area of plots used for dairy farming (owned or leased), must consist of extensive herb-rich grassland.
	GAEC 2	Protection of wetland and peatland	/ or +	The farm has a nature management plan that contains a baseline measurement and advice from an ecological adviser with the criteria for nature and landscape, including: - the location of landscape elements specific to the region (including peatlands) are registered and indicated on maps and vertical elements in the landscape (woodland, trees, buildings etc.) have been indicated; - there is a distance of at least 300 m from the herb-rich grassland and reed beds, woodland, trees, buildings, highways or paths/hiking trails - Rewetting of herb-rich grassland must take place on farms in low-lying NL between at least 15 February and 15 June.
	GAEC 3	Ban on burning arable stubble, except for plant health reasons	/	
Water	SMR 1	Directive 2000/60/EC of 23 October 2000 of the European Parliament and of the Council establishing a framework for Community action in the field of water policy (OJ L 327, 22.12.2000, p. 1): Article 11(3), point (e), and point (h), as regards mandatory requirements to control diffuse sources of pollution by phosphates	/ or +	Beter Leven standards do not provide requirements on water irrigation authorization and water meters. Poultry and pig standards do not provide any requirement on management of manure or pollutants release in groundwaters. Only the dairy cattle standard provides requirements for: - manure management: "the manure processing capacity of the farm equals the phosphate production", prohibition of manure fermentation on the farm, maximum annual amount of organic manure to be applied to the plots of herb-rich grassland, ban on phosphate fertilisers - Ban on use of glyphosate - management restrictions on the herb-rich grassland plots along the edges of the ditches, relating to applying fertiliser, grazing and, if possible, combined with rewetting
	SMR 2	Council Directive 91/676/EEC of 12 December 1991 concerning the protection of waters against pollution caused by nitrates from agricultural sources (OJ L 375, 31.12.1991, p. 1): Articles 4 and 5	/ or +	No mention of nitrates, azote or manure regulation, neither prevention of water pollution in most of the standards. Except the dairy cattle standard: - recommendation: The farmer maintains a mineral accounting system (on N and P) - prohibition of manure fermentation on the farm, manure processing in a digester, Manure disposal to a processor - maximum annual amount of 20 tons of organic manure per hectare of herb-rich grassland - ban on phosphate fertilizers - Ban on artificial fertilisers on herb-rich grassland

Soil (protection and quality)	GAEC 4	Establishment of buffer strips along water courses (minimum width of 3 meters without using pesticides and fertilisers)	/ or -	In dairy cattle standard, buffer strips are only required in specific situations. "If 20% of herb-rich grassland is (partly) realised by not applying fertiliser along the edge of ditches (at least 2 m from the edge of the ditch, calculated from the water line), the dredgings or other material extracted by the dredger from the ditch during maintenance must not be placed on these (ditch) edges. These edges must also not be ploughed, harrowed or reseeded. Seeding in localised patches or spreading herb-rich clippings (applies plot-wide) is permitted but must be done using local material."
	GAEC 5	Tillage management, reducing the risk of soil degradation and erosion, including consideration of the slope gradient	/	Tillage management is only provided on herb-rich-grassland plots by the 3-stars dairy cattle standard: "Plots of herb-rich grassland must not be ploughed, harrowed or reseeded."
	GAEC 6	Minimum soil cover to avoid bare soil in periods that are most sensitive	/	
	GAEC 7	Crop rotation in arable land, except for crops growing under water	/	
	SMR 3	Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds (OJ L 20, 26.1.2010, p. 7): Article 3(1), Article 3(2), point (b), Article 4(1), (2) and (4)	/ or +	The dairy cattle standard provides for: - extra attention for the nest management of breeding meadow birds in herb-rich grassland plots - At least one of the farm buildings is accessible to barn swallows and suitable for nesting. - There are nesting places for house sparrows (under the roof tiles of the farmhouse) or starlings (under the roof tiles of the farmhouse and barn) - There is at least one nest box for little owls, church owls or kestrels. - A nest management plan is demonstrably observed on the farm.
	SMR 4	Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild flora and fauna (OJ L 206, 22.7.1992, p. 7): Article 6(1) and (2)	/	No specific mention of Natura 2000 sites.
	GAEC 8	Minimum share of agricultural area devoted to non-productive areas or features - Minimum share of at least 4 % of arable land at farm level devoted to non-productive areas and features, including land lying fallow. - Where a farmer commits to devote at least 7 % of his/her arable land to non-productive areas or features, including land lying fallow, under an enhanced eco-scheme in accordance with Article 31(6), the share to be attributed to compliance with this GAEC standard shall be limited to 3 %. - Minimum share of at least 7 % of arable land at farm level if this includes also catch crops or	/ or +	The dairy cattle standard provides for: - The percentage of permanent grassland used for dairy farming is at least 25% of the farmland. - Of the total surface area of plots used for dairy farming (owned or leased), at least 10% (low NL) or 5% (high NL) must consist of extensive herb-rich grassland at the start of participation in BLL in 2021. Within 3 years, the surface area must increase to at least 20% (low NL) or 15% (high NL) extensive herb-rich grassland. From 1-1-2023, at least 20% of the total surface area of plots used for dairy farming (owned or leased), must consist of extensive herb-rich grassland. - A part of the farmland area consists of regional landscape elements (2% of the surface area of the farmland in low-lying NL ; 3% in high-lying NL)
Biodiversity and landscape (protection and quality)				

Food safety		nitrogen fixing crops, cultivated without the use of plant protection products, of which 3 % shall be land lying fallow or non-productive features. Member States should use the weighting factor of 0,3 for catch crops.		
		Retention of landscape features	/ or =	The dairy cattle standard requires that: - a part of the farmland area consists of regional landscape elements (2% of the surface area of the farmland in low-lying NL ; 3% in high-lying NL) - The number of existing trenches and ditches is maintained.
		Ban on cutting hedges and trees during the bird breeding and rearing season	/ or +	The dairy cattle standard provides for: - extra attention for the nest management of breeding meadow birds in herb-rich grassland plots - At least one of the farm buildings is accessible to barn swallows and suitable for nesting. - There are nesting places for house sparrows (under the roof tiles of the farmhouse) or starlings (under the roof tiles of the farmhouse and barn) - There is at least one nest box for little owls, church owls or kestrels. - A nest management plan is demonstrably observed on the farm.
		As an option, measures for avoiding invasive plant species	/ or =	The dairy cattle standard requires that there is at least 300 linear or square metres of native species planted in the farmyard.
	GAEC 9	Ban on converting or ploughing permanent grassland designated as environmentally-sensitive permanent grasslands in Natura 2000 sites	+	No specific mention of Natura 2000, but dairy cattle standard requires that: - The percentage of permanent grassland used for dairy farming is at least 25% of the farmland, with Permanent pasture defines as "grassland that has not been ploughed or harrowed for at least 10 years" - Plots of herb-rich grassland must not be ploughed, harrowed or reseeded.
	SMR 5	Regulation (EC) No 178/2002 of the European Parliament and of the Council of 28 January 2002 laying down the general principles and requirements of food law, establishing the European Food Safety Authority and laying down procedures in matters of food safety (OJ L 31, 1.2.2002, p. 1): Articles 14 and 15, Article 17(1)1 and Articles 18, 19 and 20	= or +	Pig standard requirements include: - The entire chain is in accordance with IKB Pig and/or certified. This IKB system has been recognised as equivalent by GlobalGap IFA Pigs - The pig farm has a farm-specific hygiene plan, that includes "The origin and quality of water", "The origin and storage of feed" etc. - Only GMP+ or BIO certified feed from a GMP+ or BIO certified feed supplier is provided. Broilers standard requires farms to have a valid certificate issued by a quality system approved by the Animal Protection Society and a farm health plan following The IKB Kip model BGP.
	SMR 6	Council Directive 96/22/EC of 29 April 1996 concerning the prohibition on the use in stockfarming of certain substances having a hormonal or thyrostatic action and beta-agonists, and repealing Directives 81/602/EEC, 88/146/EEC and 88/299/EEC (OJ L 125, 23.5.1996, p. 3): Article 3, points (a), (b), (d) and (e), and Articles 4, 5 and 7	+	- The cattle farmer has a one-to-one agreement with a specialised certified cattle veterinarian who is responsible for the entire veterinary supervision at the farm - The cattle farmer has created, with the farm's permanent veterinarian, a farm-specific animal treatment plan for the use of veterinary medicinal products. The plan describes the (method of) treatment is used for the most common diseases

Plant protection products	SMR 7	Regulation (EC) No 1107/2009 of the European Parliament and of the Council of 21 October 2009 concerning the placing of plant protection products on the market and repealing Council Directives 79/117/EEC and 91/414/EEC (OJ L 309, 24.11.2009, p. 1): Article 55, first and second sentence	/ or +	Dairy cattle standard requires: - Ban on use of glyphosate - Only crop protection products that have been approved by SKAL must be used on grassland and on land used for maize. -The use of crop protection products on herb-rich grassland is not permitted
	SMR 8	Directive 2009/128/EC of the European Parliament and of the Council of 21 October 2009 establishing a framework for Community action to achieve the sustainable use of pesticides (OJ L 309, 24.11.2009, p. 71): Article 5(2) and Article 8(1) to (5) Article 12 with regard to restrictions on the use of pesticides in protected areas defined on the basis of Directive 2000/60/EC and Natura 2000 legislation Article 13(1) and (3) on handling and storage of pesticides and disposal of remnants	/ or +	Cattle standard requires that: - Feed storage is free of waste or toxic substances. For example, no pesticides or other toxic substances/materials are used near the feed storage facility Dairy cattle standard requires that: - Ban on use of glyphosate - Only crop protection products that have been approved by SKAL must be used on grassland and on land used for maize. -The use of crop protection products on herb-rich grassland is not permitted
Animal welfare	SMR 9	Council Directive 2008/119/EC of 18 December 2008 laying down minimum standards for the protection of calves (OJ L 10, 15.1.2009, p. 7): Articles 3 and 4	+	The contribution depends on the level of the standard. For ex, 1-star calve standard does not go beyond legal requirements regarding space allowance per individual. On the other hand, 2-stars calve standards require a minimum area of 2m ² per calf.
	SMR 10	Council Directive 2008/120/EC of 18 December 2008 laying down minimum standards for the protection of pigs (OJ L 47, 18.2.2009, p. 5): Articles 3 and 4	+	The contribution depends on the level of the standard. For ex, 1-star pig standard does not go beyond legal requirements regarding space allowance per individual. On the other hand, 2-stars and 3-stars pig standards require a minimum area of 2,5m ² per sow.
	SMR 11	Council Directive 98/58/EC of 20 July 1998 concerning the protection of animals kept for farming purposes (OJ L 221, 8.8.1998, p. 23): Article 4	+	All standards levels comply with legal requirements: daily inspection, creation of a sick pen, health registration, Medication use documentation, clear day and night rhythm (with artificial light or daylight), appropriate access to water and feed... Except that 1-star pig standard does not prohibit tail-docking, while this is in fact prohibited by European law (but not by NE law ?). 1-star, 2 stars- and 3-stars standards for laying hens go beyond legislation by providing mandatory partial visibility on the outside, or even partial free range.

Initiative Tierwohl

Main issue	Requirements and standards		Contribution	Justification
Climate change (mitigation of and adaptation to)	GAEC 1	Maintenance of permanent grassland based on a ratio of permanent grassland in relation to agricultural area at national, regional, subregional, group-of-holdings or holding level in comparison to the reference year 2018 Maximum decrease of 5 % compared to the reference year	/	
	GAEC 2	Protection of wetland and peatland	/	
	GAEC 3	Ban on burning arable stubble, except for plant health reasons	/	
Water	SMR 1	Directive 2000/60/EC of 23 October 2000 of the European Parliament and of the Council establishing a framework for Community action in the field of water policy (OJ L 327, 22.12.2000, p. 1): Article 11(3), point (e), and point (h), as regards mandatory requirements to control diffuse sources of pollution by phosphates	/	
	SMR 2	Council Directive 91/676/EEC of 12 December 1991 concerning the protection of waters against pollution caused by nitrates from agricultural sources (OJ L 375, 31.12.1991, p. 1): Articles 4 and 5	/	
	GAEC 4	Establishment of buffer strips along water courses (minimum width of 3 meters without using pesticides and fertilisers)	/	
Soil (protection and quality)	GAEC 5	Tillage management, reducing the risk of soil degradation and erosion, including consideration of the slope gradient	/	
	GAEC 6	Minimum soil cover to avoid bare soil in periods that are most sensitive	/	

Biodiversity and landscape (protection and quality)	GAEC 7	Crop rotation in arable land, except for crops growing under water	/	
	SMR 3	Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds (OJ L 20, 26.1.2010, p. 7): Article 3(1), Article 3(2), point (b), Article 4(1), (2) and (4)	/	
	SMR 4	Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild flora and fauna (OJ L 206, 22.7.1992, p. 7): Article 6(1) and (2)	/	
	GAEC 8	Minimum share of agricultural area devoted to non-productive areas or features - Minimum share of at least 4 % of arable land at farm level devoted to non-productive areas and features, including land lying fallow. - Where a farmer commits to devote at least 7 % of his/her arable land to non-productive areas or features, including land lying fallow, under an enhanced eco-scheme in accordance with Article 31(6), the share to be attributed to compliance with this GAEC standard shall be limited to 3 %. - Minimum share of at least 7 % of arable land at farm level if this includes also catch crops or nitrogen fixing crops, cultivated without the use of plant protection products, of which 3 % shall be land lying fallow or non-productive features. Member States should use the weighting factor of 0,3 for catch crops.	/	
		Retention of landscape features	/	
		Ban on cutting hedges and trees during the bird breeding and rearing season	/	
		As an option, measures for avoiding invasive plant species	/	

Food safety	GAEC 9	Ban on converting or ploughing permanent grassland designated as environmentally-sensitive permanent grasslands in Natura 2000 sites	/	
	SMR 5	Regulation (EC) No 178/2002 of the European Parliament and of the Council of 28 January 2002 laying down the general principles and requirements of food law, establishing the European Food Safety Authority and laying down procedures in matters of food safety (OJ L 31, 1.2.2002, p. 1): Articles 14 and 15, Article 17(1)1 and Articles 18, 19 and 20	+	A prerequisite for livestock owners that want to join the Initiative Tierwohl is participation in the QS scheme. As a quality assurance system, the QS scheme defines strict manufacturing and marketing criteria along the entire value chain for fresh food, including meat. As part of the inspections for the Animal Welfare Initiative, a livestock owner must prove that they have implemented certain basic criteria from the QS scheme, e.g. regarding humane farming, hygiene and animal health. Origin and marketing: Broiler and turkey farmers must purchase chicks from hatcheries that have been classed as eligible for supply by the QS. Piglet farmers who either do not raise their own sows or do not yet collaborate with a sow farmer associated with the Animal Welfare Initiative must ensure that they only source their piglets from one or several AWI sow farmer(s) directly or via livestock traders or livestock marketing organisations.
	SMR 6	Council Directive 96/22/EC of 29 April 1996 concerning the prohibition on the use in stockfarming of certain substances having a hormonal or thyrostatic action and beta-agonists, and repealing Directives 81/602/EEC, 88/146/EEC and 88/299/EEC (OJ L 125, 23.5.1996, p. 3): Article 3, points (a), (b), (d) and (e), and Articles 4, 5 and 7	=	No explicit mention of requirements related to prohibition of beta-agonist substances can be found in the standard. According to Tierwohl Initiative organisation, growth promoters are not allowed, although it is not verified under the feed monitoring control system.
Plant protection products	SMR 7	Regulation (EC) No 1107/2009 of the European Parliament and of the Council of 21 October 2009 concerning the placing of plant protection products on the market and repealing Council Directives 79/117/EEC and 91/414/EEC (OJ L 309, 24.11.2009, p. 1): Article 55, first and second sentence	/	
	SMR 8	Directive 2009/128/EC of the European Parliament and of the Council of 21 October 2009 establishing a framework for Community action to achieve the sustainable use of pesticides (OJ L 309, 24.11.2009, p. 71): Article 5(2) and Article 8(1) to (5) Article 12 with regard to restrictions on the use of pesticides in protected areas defined on the basis of Directive 2000/60/EC and Natura 2000 legislation Article	/	

		13(1) and (3) on handling and storage of pesticides and disposal of remnants		
Animal welfare	SMR 9	Council Directive 2008/119/EC of 18 December 2008 laying down minimum standards for the protection of calves (OJ L 10, 15.1.2009, p. 7): Articles 3 and 4	/	The standard's scope currently covers poultry and pigs. A standard for cattle is in progress, to be published in April 2022.
	SMR 10	Council Directive 2008/120/EC of 18 December 2008 laying down minimum standards for the protection of pigs (OJ L 47, 18.2.2009, p. 5): Articles 3 and 4	+	Minimum space requirements per individual are higher than legislation.
	SMR 11	Council Directive 98/58/EC of 20 July 1998 concerning the protection of animals kept for farming purposes (OJ L 221, 8.8.1998, p. 23): Article 4	+	Higher requirements of the standard regarding animal access to natural light and space allowance (to a small extent for broilers however: max density of 35 kg/m ² while EU legislation allows a maximum of 39 or 42 kg/m ² by derogation to the limit of 33 kg/m ²).

EU geographical indications (GIs): PDOs/PGIs

Main issue	Requirements and standards		Contribution	Justification
Climate change (mitigation of and adaptation to)	GAEC 1	Maintenance of permanent grassland based on a ratio of permanent grassland in relation to agricultural area at national, regional, subregional, group-of-holdings or holding level in comparison to the reference year 2018. Maximum decrease of 5 % compared to the reference year.	nd	Not defined in the EU regulations on geographical indications. It depends on the product specifications drafted for each GI.
	GAEC 2	Protection of wetland and peatland	nd	Not defined in the EU regulations on geographical indications. It depends on the product specifications drafted for each GI.
	GAEC 3	Ban on burning arable stubble, except for plant health reasons	nd	Not defined in the EU regulations on geographical indications. It depends on the product specifications drafted for each GI.
Water	SMR 1	Directive 2000/60/EC of 23 October 2000 of the European Parliament and of the Council establishing a framework for Community action in the field of water policy (OJ L 327, 22.12.2000, p. 1): Article 11(3), point (e), and point (h), as regards mandatory requirements to control diffuse sources of pollution by phosphates	nd	Not defined in the EU regulations on geographical indications. It depends on the product specifications drafted for each GI.
	SMR 2	Council Directive 91/676/EEC of 12 December 1991 concerning the protection of waters against pollution caused by nitrates from agricultural sources (OJ L 375, 31.12.1991, p. 1): Articles 4 and 5	nd	Not defined in the EU regulations on geographical indications. It depends on the product specifications drafted for each GI.
	GAEC 4	Establishment of buffer strips along water courses (minimum width of 3 meters without using pesticides and fertilisers)	nd	Not defined in the EU regulations on geographical indications. It depends on the product specifications drafted for each GI.
Soil (protection and quality)	GAEC 5	Tillage management, reducing the risk of soil degradation and erosion, including consideration of the slope gradient	nd	Not defined in the EU regulations on geographical indications. It depends on the product specifications drafted for each GI.
	GAEC 6	Minimum soil cover to avoid bare soil in periods that are most sensitive	nd	Not defined in the EU regulations on geographical indications. It depends on the product specifications drafted for each GI.
	GAEC 7	Crop rotation in arable land, except for crops growing under water	nd	Not defined in the EU regulations on geographical indications. It depends on the product specifications drafted for each GI.
Biodiversity and landscape (protection and)	SMR 3	Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds (OJ L 20, 26.1.2010, p. 7): Article 3(1), Article 3(2), point (b), Article 4(1), (2) and (4)	nd	Not defined in the EU regulations on geographical indications. It depends on the product specifications drafted for each GI.
	SMR 4	Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild flora and fauna (OJ L 206, 22.7.1992, p. 7): Article 6(1) and (2)	nd	Not defined in the EU regulations on geographical indications. It depends on the product specifications drafted for each GI.

	GAEC 8	Minimum share of agricultural area devoted to non-productive areas or features - Minimum share of at least 4 % of arable land at farm level devoted to non-productive areas and features, including land lying fallow. - Where a farmer commits to devote at least 7 % of his/her arable land to non-productive areas or features, including land lying fallow, under an enhanced eco-scheme in accordance with Article 31(6), the share to be attributed to compliance with this GAEC standard shall be limited to 3 %. - Minimum share of at least 7 % of arable land at farm level if this includes also catch crops or nitrogen fixing crops, cultivated without the use of plant protection products, of which 3 % shall be land lying fallow or non-productive features. Member States should use the weighting factor of 0,3 for catch crops.	nd	Not defined in the EU regulations on geographical indications. It depends on the product specifications drafted for each GI.
		Retention of landscape features	nd	Not defined in the EU regulations on geographical indications. It depends on the product specifications drafted for each GI.
		Ban on cutting hedges and trees during the bird breeding and rearing season	nd	Not defined in the EU regulations on geographical indications. It depends on the product specifications drafted for each GI.
		As an option, measures for avoiding invasive plant species	nd	Not defined in the EU regulations on geographical indications. It depends on the product specifications drafted for each GI.
	GAEC 9	Ban on converting or ploughing permanent grassland designated as environmentally-sensitive permanent grasslands in Natura 2000 sites	nd	Not defined in the EU regulations on geographical indications. It depends on the product specifications drafted for each GI.
Food safety	SMR 5	Regulation (EC) No 178/2002 of the European Parliament and of the Council of 28 January 2002 laying down the general principles and requirements of food law, establishing the European Food Safety Authority and laying down procedures in matters of food safety (OJ L 31, 1.2.2002, p. 1): Articles 14 and 15, Article 17(1)1 and Articles 18, 19 and 20	nd	Not defined in the EU regulations on geographical indications. It depends on the product specifications drafted for each GI.
	SMR 6	Council Directive 96/22/EC of 29 April 1996 concerning the prohibition on the use in stockfarming of certain substances having a hormonal or thyrostatic action and beta-agonists, and repealing Directives 81/602/EEC, 88/146/EEC and 88/299/EEC (OJ L 125, 23.5.1996, p. 3): Article 3, points (a), (b), (d) and (e), and Articles 4, 5 and 7	nd	Not defined in the EU regulations on geographical indications. It depends on the product specifications drafted for each GI.
Plant protection products	SMR 7	Regulation (EC) No 1107/2009 of the European Parliament and of the Council of 21 October 2009 concerning the placing of plant protection products on the market and repealing Council Directives 79/117/EEC and 91/414/EEC (OJ L 309, 24.11.2009, p. 1): Article 55, first and second sentence	nd	Not defined in the EU regulations on geographical indications. It depends on the product specifications drafted for each GI.

	SMR 8	Directive 2009/128/EC of the European Parliament and of the Council of 21 October 2009 establishing a framework for Community action to achieve the sustainable use of pesticides (OJ L 309, 24.11.2009, p. 71): Article 5(2) and Article 8(1) to (5) Article 12 with regard to restrictions on the use of pesticides in protected areas defined on the basis of Directive 2000/60/EC and Natura 2000 legislation Article 13(1) and (3) on handling and storage of pesticides and disposal of remnants	nd	Not defined in the EU regulations on geographical indications. It depends on the product specifications drafted for each GI.
Animal welfare	SMR 9	Council Directive 2008/119/EC of 18 December 2008 laying down minimum standards for the protection of calves (OJ L 10, 15.1.2009, p. 7): Articles 3 and 4	nd	Not defined in the EU regulations on geographical indications. It depends on the product specifications drafted for each GI.
	SMR 10	Council Directive 2008/120/EC of 18 December 2008 laying down minimum standards for the protection of pigs (OJ L 47, 18.2.2009, p. 5): Articles 3 and 4	nd	Not defined in the EU regulations on geographical indications. It depends on the product specifications drafted for each GI.
	SMR 11	Council Directive 98/58/EC of 20 July 1998 concerning the protection of animals kept for farming purposes (OJ L 221, 8.8.1998, p. 23): Article 4	nd	Not defined in the EU regulations on geographical indications. It depends on the product specifications drafted for each GI.

Naturland

Main issue	Requirements and standards		Contribution	Justification
Climate change (mitigation of and adaptation to)	GAEC 1	Maintenance of permanent grassland based on a ratio of permanent grassland in relation to agricultural area at national, regional, subregional, group-of-holdings or holding level in comparison to the reference year 2018 Maximum decrease of 5 % compared to the reference year	/	
	GAEC 2	Protection of wetland and peatland	=	The farmer is therefore obliged to conserve and, if required, to recreate structural elements of the landscape, such as hedges, borders, humid areas, oligotrophic grassland and other elements (6)
	GAEC 3	Ban on burning arable stubble, except for plant health reasons	=	The burning of organic matter (e.g. crop residues) is only permitted in exceptional cases (health issues) (7.1)
Water	SMR 1	Directive 2000/60/EC of 23 October 2000 of the European Parliament and of the Council establishing a framework for Community action in the field of water policy (OJ L 327, 22.12.2000, p. 1): Article 11(3), point (e), and point (h), as regards mandatory requirements to control diffuse sources of pollution by phosphates	+	Naturland standards define maximum stocking density (number of animals per hectare) according to the amount of nitrogen and phosphate equivalent contained in the annual faecal matter and urine. These amounts should not overpass 80 kg N or 70Kg P2O5 per hectare per year (appendix 4) Farms in areas with scarce water resources and equipped with irrigation systems must comply with additional requirements.

				<p>Water abstraction must comply with national and regional laws and regulations. Every opportunity to collect, store and use (rain-)water (water harvesting) must be exploited, depending on local conditions and the farm's situation.</p> <p>Mechanical irrigation systems (e. g. drip, centre pivot or mini sprinkler irrigation systems) must operate effectively and be water-efficient. Water losses must be avoided by means of regular maintenance.</p> <p>Water consumption (m3 /ha/a) is to be recorded.</p>
	SMR 2	Council Directive 91/676/EEC of 12 December 1991 concerning the protection of waters against pollution caused by nitrates from agricultural sources (OJ L 375, 31.12.1991, p. 1): Articles 4 and 5	+	Naturland standards define maximum stocking density (number of animals per hectare) according to the amount of nitrogen and phosphate equivalent contained in the annual faecal matter and urine. These amounts should not overpass 80 kg N or 70Kg P2O5 per hectare per year (appendix 4)
Soil (protection and quality)	GAEC 4	Establishment of buffer strips along water courses (minimum width of 3 meters without using pesticides and fertilisers)	-	<p>Streams, rivers and lakes are to be protected by a buffer zone of trees appropriate to local conditions, and suitable measures are to be determined in the management plan (3.2)</p> <p>By creating extensive bands of grassland as buffer zones alongside unstable ecological systems (e.g. rivers and lakes), precautions are taken against potential soil loss and nutrient input (6).</p> <p>There is no detail regarding a minimal buffer strip width.</p>
	GAEC 5	Tillage management, reducing the risk of soil degradation and erosion, including consideration of the slope gradient	-	<p>The tillage process shall be such as to conserve the natural layers of the soil structure (5).</p> <p>The washing out of nutrients must be prevented by suitable cultivation measures (eg. undergrowth, ploughing rotas commensurate with local conditions).</p>
	GAEC 6	Minimum soil cover to avoid bare soil in periods that are most sensitive	+	<p>No area shall be entirely free of vegetation or other coverage the whole year round (1.2)</p> <p>Permanent plant coverage is required.</p>
	GAEC 7	Crop rotation in arable land, except for crops growing under water	=	Naturland standards requires crop rotation for combinable crops. (Part B I, 8)
Biodiversity and	SMR 3	Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds (OJ L 20, 26.1.2010, p. 7): Article 3(1), Article 3(2), point (b), Article 4(1), (2) and (4)	/	

Food safety	SMR 4	Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild flora and fauna (OJ L 206, 22.7.1992, p. 7): Article 6(1) and (2)	/	The farmer is therefore obliged to conserve and, if required, to recreate structural elements of the landscape, such as hedges, borders, humid areas, oligotrophic grassland and other elements (6)
	GAEC 8	Minimum share of agricultural area devoted to non-productive areas or features - Minimum share of at least 4 % of arable land at farm level devoted to non-productive areas and features, including land lying fallow. - Where a farmer commits to devote at least 7 % of his/her arable land to non-productive areas or features, including land lying fallow, under an enhanced eco-scheme in accordance with Article 31(6), the share to be attributed to compliance with this GAEC standard shall be limited to 3 %. - Minimum share of at least 7 % of arable land at farm level if this includes also catch crops or nitrogen fixing crops, cultivated without the use of plant protection products, of which 3 % shall be land lying fallow or non-productive features. Member States should use the weighting factor of 0,3 for catch crops.	-	There is no obligation to retain additional non productive areas or feature. In viticulture, it is recommended to leave one area fallow. Nатурland standards as organic EU regulation bans the use of PP and promotes the use of nitrogen fixing crops such as leguminous. A minimum of 20% of the crops on the arable land has to be legumes (Part B. I, 8)
		Retention of landscape features	=	The farmer is therefore obliged to conserve and, if required, to recreate structural elements of the landscape, such as hedges, borders, humid areas, oligotrophic grassland and other elements (6)
		Ban on cutting hedges and trees during the bird breeding and rearing season	/	
		As an option, measures for avoiding invasive plant species	/	
	GAEC 9	Ban on converting or ploughing permanent grassland designated as environmentally-sensitive permanent grasslands in Natura 2000 sites	/	
	SMR 5	Regulation (EC) No 178/2002 of the European Parliament and of the Council of 28 January 2002 laying down the general principles and requirements of food law, establishing the European Food Safety Authority and laying down procedures in matters of food safety (OJ L 31, 1.2.2002, p. 1): Articles 14 and 15, Article 17(1)1 and Articles 18, 19 and 20	/	
	SMR 6	Council Directive 96/22/EC of 29 April 1996 concerning the prohibition on the use in stockfarming of certain substances having a hormonal or thyrostatic action and beta-agonists, and repealing Directives 81/602/EEC, 88/146/EEC and 88/299/EEC (OJ L 125, 23.5.1996, p. 3): Article 3, points (a), (b), (d) and (e), and Articles 4, 5 and 7	=	Organic and thus Nатурland standards prohibit the use of such substances.
	SMR 7	Regulation (EC) No 1107/2009 of the European Parliament and of the Council of 21 October 2009 concerning the placing of plant protection products on the market and repealing Council Directives 79/117/EEC and 91/414/EEC (OJ L 309, 24.11.2009, p. 1): Article 55, first and second sentence	+	Organic and thus Nатурland standards prohibit the use of chemical plant protection products. Nатурland standards provides additional restriction regarding copper use.

	SMR 8	Directive 2009/128/EC of the European Parliament and of the Council of 21 October 2009 establishing a framework for Community action to achieve the sustainable use of pesticides (OJ L 309, 24.11.2009, p. 71): Article 5(2) and Article 8(1) to (5) Article 12 with regard to restrictions on the use of pesticides in protected areas defined on the basis of Directive 2000/60/EC and Natura 2000 legislation Article 13(1) and (3) on handling and storage of pesticides and disposal of remnants	+	Organic and thus Naturland standards ban the use of chemical plant protection products. Naturland standards provides additional restriction regarding copper use.
Animal welfare	SMR 9	Council Directive 2008/119/EC of 18 December 2008 laying down minimum standards for the protection of calves (OJ L 10, 15.1.2009, p. 7): Articles 3 and 4	+	Naturland standards provides maximum stocking density calves (appendix 4). Naturland standards recommends: <ul style="list-style-type: none"> - to allow the calf to suckle from the mother cow in the first days after its birth - to not dehorn calves - to group calves to favour social contact. Naturland bans the use of isolated boxes for calves.
	SMR 10	Council Directive 2008/120/EC of 18 December 2008 laying down minimum standards for the protection of pigs (OJ L 47, 18.2.2009, p. 5): Articles 3 and 4	+	Naturland standards provides maximum stocking density for pigs (appendix 4) and specific provisions aiming at improving pig welfare (Part II Livestock production 1.4): <ul style="list-style-type: none"> - 50% of the outdoor area as defined under Appendix 5 must consist of solid material - Breeding sows must move freely and it is forbidden to keep them tethered - Empty sows must be kept in group - Weaned piglets must not be kept on flat decks or in piglet cages. - Pigs must have access to areas which allow them to root
	SMR 11	Council Directive 98/58/EC of 20 July 1998 concerning the protection of animals kept for farming purposes (OJ L 221, 8.8.1998, p. 23): Article 4	+	Naturland standards provides maximum stocking density which are higher than EU organic standards and provides additional welfare rules for animal kept for farming purpose (Part B II Livestock production)

Label Bas-Carbone

Main issue	Requirements and standards		Contribution	Justification
Climate change (mitigation of and adaptation to)	GAEC 1	Maintenance of permanent grassland based on a ratio of permanent grassland in relation to agricultural area at national, regional, subregional, group-of-holdings or holding level in comparison to the reference year 2018 Maximum decrease of 5 % compared to the reference year	/	The maintenance of permanent grassland is not compulsory for the low carbon label methodology applying for cattle (Carbon agri)., However the maintenance of permanent grassland and the improvement of their carbon sequestration capacity are two main tools to secure the reduction of GHG emissions.
	GAEC 2	Protection of wetland and peatland	/	The protection of peatland is not compulsory, but their destruction would greatly reduce the potential of GHG reduction. Thus, the implementation of Carbon Agri would require the maintenance of such environmental feature.
	GAEC 3	Ban on burning arable stubble, except for plant health reasons	/	
Water Soil (protection and quality) Biodiversity and landscapes	SMR 1	Directive 2000/60/EC of 23 October 2000 of the European Parliament and of the Council establishing a framework for Community action in the field of water policy (OJ L 327, 22.12.2000, p. 1): Article 11(3), point (e), and point (h), as regards mandatory requirements to control diffuse sources of pollution by phosphates	/	
	SMR 2	Council Directive 91/676/EEC of 12 December 1991 concerning the protection of waters against pollution caused by nitrates from agricultural sources (OJ L 375, 31.12.1991, p. 1): Articles 4 and 5	/	
	GAEC 4	Establishment of buffer strips along water courses (minimum width of 3 meters without using pesticides and fertilisers)	/	
	GAEC 5	Tillage management, reducing the risk of soil degradation and erosion, including consideration of the slope gradient	/	
	GAEC 6	Minimum soil cover to avoid bare soil in periods that are most sensitive	/	
	GAEC 7	Crop rotation in arable land, except for crops growing under water	/	The establishment of crop rotation is not compulsory but their destruction would greatly reduce the potential of GHG reduction. Thus, the implementation of Carbon Agri would require the maintenance of such environmental feature.
	SMR 3	Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds (OJ L 20, 26.1.2010, p. 7): Article 3(1), Article 3(2), point (b), Article 4(1), (2) and (4)	/	

	SMR 4	Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild flora and fauna (OJ L 206, 22.7.1992, p. 7): Article 6(1) and (2)	/	
	GAEC 8	Minimum share of agricultural area devoted to non-productive areas or features - Minimum share of at least 4 % of arable land at farm level devoted to non-productive areas and features, including land lying fallow. - Where a farmer commits to devote at least 7 % of his/her arable land to non-productive areas or features, including land lying fallow, under an enhanced eco-scheme in accordance with Article 31(6), the share to be attributed to compliance with this GAEC standard shall be limited to 3 %. - Minimum share of at least 7 % of arable land at farm level if this includes also catch crops or nitrogen fixing crops, cultivated without the use of plant protection products, of which 3 % shall be land lying fallow or non-productive features. Member States should use the weighting factor of 0,3 for catch crops.	/	
		Retention of landscape features	/	
		Ban on cutting hedges and trees during the bird breeding and rearing season	/	
		As an option, measures for avoiding invasive plant species	/	
	GAEC 9	Ban on converting or ploughing permanent grassland designated as environmentally sensitive permanent grasslands in Natura 2000 sites	/	
	SMR 5	Regulation (EC) No 178/2002 of the European Parliament and of the Council of 28 January 2002 laying down the general principles and requirements of food law, establishing the European Food Safety Authority and laying down procedures in matters of food safety (OJ L 31, 1.2.2002, p. 1): Articles 14 and 15, Article 17(1)1 and Articles 18, 19 and 20	/	
	SMR 6	Council Directive 96/22/EC of 29 April 1996 concerning the prohibition on the use in stockfarming of certain substances having a hormonal or thyrostatic action and beta-agonists, and repealing Directives 81/602/EEC, 88/146/EEC and 88/299/EEC (OJ L 125, 23.5.1996, p. 3): Article 3, points (a), (b), (d) and (e), and Articles 4, 5 and 7	/	
Plant protection products	SMR 7	Regulation (EC) No 1107/2009 of the European Parliament and of the Council of 21 October 2009 concerning the placing of plant protection products on the market and repealing Council Directives 79/117/EEC and 91/414/EEC (OJ L 309, 24.11.2009, p. 1): Article 55, first and second sentence	/	

	SMR 8	Directive 2009/128/EC of the European Parliament and of the Council of 21 October 2009 establishing a framework for Community action to achieve the sustainable use of pesticides (OJ L 309, 24.11.2009, p. 71): Article 5(2) and Article 8(1) to (5) Article 12 with regard to restrictions on the use of pesticides in protected areas defined on the basis of Directive 2000/60/EC and Natura 2000 legislation Article 13(1) and (3) on handling and storage of pesticides and disposal of remnants	/	
Animal welfare	SMR 9	Council Directive 2008/119/EC of 18 December 2008 laying down minimum standards for the protection of calves (OJ L 10, 15.1.2009, p. 7): Articles 3 and 4	/	
	SMR 10	Council Directive 2008/120/EC of 18 December 2008 laying down minimum standards for the protection of pigs (OJ L 47, 18.2.2009, p. 5): Articles 3 and 4	/	
	SMR 11	Council Directive 98/58/EC of 20 July 1998 concerning the protection of animals kept for farming purposes (OJ L 221, 8.8.1998, p. 23): Article 4	/	

Wineries for Climate Protection (WfCP)

Main issue	Requirements and standards		Contribution	Justification
Climate change (mitigation of and adaptation to)	GAEC 1	Maintenance of permanent grassland based on a ratio of permanent grassland in relation to agricultural area at national, regional, subregional, group-of-holdings or holding level in comparison to the reference year 2018 Maximum decrease of 5 % compared to the reference year	/	Not covered by the scheme.
	GAEC 2	Protection of wetland and peatland	/	Not covered by the scheme.
	GAEC 3	Ban on burning arable stubble, except for plant health reasons	/	Not covered by the scheme.
Water	SMR 1	Directive 2000/60/EC of 23 October 2000 of the European Parliament and of the Council establishing a framework for Community action in the field of water policy (OJ L 327, 22.12.2000, p. 1): Article 11(3), point (e), and point (h), as regards mandatory requirements to control diffuse sources of pollution by phosphates	/	Not covered by the scheme.
	SMR 2	Council Directive 91/676/EEC of 12 December 1991 concerning the protection of waters against pollution caused by nitrates from agricultural sources (OJ L 375, 31.12.1991, p. 1): Articles 4 and 5	/	Not covered by the scheme.
	GAEC 4	Establishment of buffer strips along water courses (minimum width of 3 meters without using pesticides and fertilisers)	/	Not covered by the scheme.
Soil (protection and quality)	GAEC 5	Tillage management, reducing the risk of soil degradation and erosion, including consideration of the slope gradient	/	Not covered by the scheme.
	GAEC 6	Minimum soil cover to avoid bare soil in periods that are most sensitive	/	Not covered by the scheme.
	GAEC 7	Crop rotation in arable land, except for crops growing under water	/	Not covered by the scheme.
Biodiversity and landscape (conservation)	SMR 3	Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds (OJ L 20, 26.1.2010, p. 7): Article 3(1), Article 3(2), point (b), Article 4(1), (2) and (4)	/	Not covered by the scheme.

	SMR 4	Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild flora and fauna (OJ L 206, 22.7.1992, p. 7): Article 6(1) and (2)	/	Not covered by the scheme.
		Minimum share of agricultural area devoted to non-productive areas or features - Minimum share of at least 4 % of arable land at farm level devoted to non-productive areas and features, including land lying fallow. - Where a farmer commits to devote at least 7 % of his/her arable land to non-productive areas or features, including land lying fallow, under an enhanced eco-scheme in accordance with Article 31(6), the share to be attributed to compliance with this GAEC standard shall be limited to 3 %. - Minimum share of at least 7 % of arable land at farm level if this includes also catch crops or nitrogen fixing crops, cultivated without the use of plant protection products, of which 3 % shall be land lying fallow or non-productive features. Member States should use the weighting factor of 0,3 for catch crops.	/	Not covered by the scheme.
	GAEC 8	Retention of landscape features	/	Not covered by the scheme.
		Ban on cutting hedges and trees during the bird breeding and rearing season	/	Not covered by the scheme.
		As an option, measures for avoiding invasive plant species	/	Not covered by the scheme.
	GAEC 9	Ban on converting or ploughing permanent grassland designated as environmentally-sensitive permanent grasslands in Natura 2000 sites	/	Not covered by the scheme.
	SMR 5	Regulation (EC) No 178/2002 of the European Parliament and of the Council of 28 January 2002 laying down the general principles and requirements of food law, establishing the European Food Safety Authority and laying down procedures in matters of food safety (OJ L 31, 1.2.2002, p. 1): Articles 14 and 15, Article 17(1)1 and Articles 18, 19 and 20	/	Not covered by the scheme.
Food safety	SMR 6	Council Directive 96/22/EC of 29 April 1996 concerning the prohibition on the use in stockfarming of certain substances having a hormonal or thyrostatic action and beta-agonists, and repealing Directives 81/602/EEC, 88/146/EEC and 88/299/EEC (OJ L 125, 23.5.1996, p. 3): Article 3, points (a), (b), (d) and (e), and Articles 4, 5 and 7	/	Not covered by the scheme.

Plant protection products	SMR 7	Regulation (EC) No 1107/2009 of the European Parliament and of the Council of 21 October 2009 concerning the placing of plant protection products on the market and repealing Council Directives 79/117/EEC and 91/414/EEC (OJ L 309, 24.11.2009, p. 1): Article 55, first and second sentence	/	Not covered by the scheme.
	SMR 8	Directive 2009/128/EC of the European Parliament and of the Council of 21 October 2009 establishing a framework for Community action to achieve the sustainable use of pesticides (OJ L 309, 24.11.2009, p. 71): Article 5(2) and Article 8(1) to (5) Article 12 with regard to restrictions on the use of pesticides in protected areas defined on the basis of Directive 2000/60/EC and Natura 2000 legislation Article 13(1) and (3) on handling and storage of pesticides and disposal of remnants	/	Not covered by the scheme.
Animal welfare	SMR 9	Council Directive 2008/119/EC of 18 December 2008 laying down minimum standards for the protection of calves (OJ L 10, 15.1.2009, p. 7): Articles 3 and 4	/	Not covered by the scheme.
	SMR 10	Council Directive 2008/120/EC of 18 December 2008 laying down minimum standards for the protection of pigs (OJ L 47, 18.2.2009, p. 5): Articles 3 and 4	/	Not covered by the scheme.
	SMR 11	Council Directive 98/58/EC of 20 July 1998 concerning the protection of animals kept for farming purposes (OJ L 221, 8.8.1998, p. 23): Article 4	/	Not covered by the scheme.

Bord Bia Quality Mark - Beef and lamb scheme

Main issue	Requirements and standards		Contribution	Justification
Climate change (mitigation of and adaptation to)	GAEC 1	Maintenance of permanent grassland based on a ratio of permanent grassland in relation to agricultural area at national, regional, subregional, group-of-holdings or holding level in comparison to the reference year 2018 Maximum decrease of 5 % compared to the reference year	/	Not required in the certification
	GAEC 2	Protection of wetland and peatland	/	Not required in the certification
	GAEC 3	Ban on burning arable stubble, except for plant health reasons	/	Not required in the certification
Water	SMR 1	Directive 2000/60/EC of 23 October 2000 of the European Parliament and of the Council establishing a framework for Community action in the field of water policy (OJ L 327, 22.12.2000, p. 1): Article 11(3), point (e), and point (h), as regards mandatory requirements to control diffuse sources of pollution by phosphates	-	There are recommendations on a balanced nutrient plan but this is not taken into account in the scoring for the certification.
	SMR 2	Council Directive 91/676/EEC of 12 December 1991 concerning the protection of waters against pollution caused by nitrates from agricultural sources (OJ L 375, 31.12.1991, p. 1): Articles 4 and 5	-	There are recommendations on a balanced nutrient plan but this is not taken into account in the scoring for the certification.
	GAEC 4	Establishment of buffer strips along water courses (minimum width of 3 meters without using pesticides and fertilisers)	/	Not required in the certification
Soil (protection and quality)	GAEC 5	Tillage management, reducing the risk of soil degradation and erosion, including consideration of the slope gradient	/	Not required in the certification
	GAEC 6	Minimum soil cover to avoid bare soil in periods that are most sensitive	/	Not required in the certification
	GAEC 7	Crop rotation in arable land, except for crops growing under water	/	Not required in the certification
Biodiversity and landscape (protection)	SMR 3	Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds (OJ L 20, 26.1.2010, p. 7): Article 3(1), Article 3(2), point (b), Article 4(1), (2) and (4)	/	Not required in the certification
	SMR 4	Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild flora and fauna (OJ L 206, 22.7.1992, p. 7): Article 6(1) and (2)	/	Not required in the certification
		Minimum share of agricultural area devoted to non-productive areas or features - Minimum share of at least 4 % of arable land at farm level devoted to non-productive areas and features,	/	Not required in the certification

	GAEC 8	including land lying fallow. - Where a farmer commits to devote at least 7 % of his/her arable land to non-productive areas or features, including land lying fallow, under an enhanced eco-scheme in accordance with Article 31(6), the share to be attributed to compliance with this GAEC standard shall be limited to 3 %. - Minimum share of at least 7 % of arable land at farm level if this includes also catch crops or nitrogen fixing crops, cultivated without the use of plant protection products, of which 3 % shall be land lying fallow or non-productive features. Member States should use the weighting factor of 0,3 for catch crops.		
		Retention of landscape features	/	Not required in the certification
		Ban on cutting hedges and trees during the bird breeding and rearing season	/	Not required in the certification
		As an option, measures for avoiding invasive plant species	/	Not required in the certification
	GAEC 9	Ban on converting or ploughing permanent grassland designated as environmentally-sensitive permanent grasslands in Natura 2000 sites	/	Not required in the certification
	SMR 5	Regulation (EC) No 178/2002 of the European Parliament and of the Council of 28 January 2002 laying down the general principles and requirements of food law, establishing the European Food Safety Authority and laying down procedures in matters of food safety (OJ L 31, 1.2.2002, p. 1): Articles 14 and 15, Article 17(1)1 and Articles 18, 19 and 20	=	Included in the "Meat Processor Quality Assurance Scheme Processor Standard"
	SMR 6	Council Directive 96/22/EC of 29 April 1996 concerning the prohibition on the use in stockfarming of certain substances having a hormonal or thyrostatic action and beta-agonists, and repealing Directives 81/602/EEC, 88/146/EEC and 88/299/EEC (OJ L 125, 23.5.1996, p. 3): Article 3, points (a), (b), (d) and (e), and Articles 4, 5 and 7	/	Not required in the certification
	SMR 7	Regulation (EC) No 1107/2009 of the European Parliament and of the Council of 21 October 2009 concerning the placing of plant protection products on the market and repealing Council Directives 79/117/EEC and 91/414/EEC (OJ L 309, 24.11.2009, p. 1): Article 55, first and second sentence	=	Requirements on good use on pesticide on farm.
	SMR 8	Directive 2009/128/EC of the European Parliament and of the Council of 21 October 2009 establishing a framework for Community action to achieve the sustainable use of pesticides (OJ L 309, 24.11.2009, p. 71): Article 5(2) and Article 8(1) to (5) Article 12 with regard to restrictions on the use of pesticides in protected areas defined on the basis of Directive 2000/60/EC and Natura 2000 legislation Article 13(1) and (3) on handling and storage of pesticides and disposal of remnants	/	Not required in the certification
Animal welfare	SMR 9	Council Directive 2008/119/EC of 18 December 2008 laying down minimum standards for the protection of calves (OJ L 10, 15.1.2009, p. 7): Articles 3 and 4	=	In its appendix 11 (that farmer must comply with), the certification provides details on space allowances for the different types of animals, including calves. This appendix is

				based, among other sources, on Council Directive 2008/119/EC. Specific requirements also set general conditions for rearing calves (article 4 of Council Directive 2008/119/EC)
	SMR 10	Council Directive 2008/120/EC of 18 December 2008 laying down minimum standards for the protection of pigs (OJ L 47, 18.2.2009, p. 5): Articles 3 and 4	=	Specific requirements in appendix 6 (pig scheme) on space allowance and requirements on general conditions for pigs.
	SMR 11	Council Directive 98/58/EC of 20 July 1998 concerning the protection of animals kept for farming purposes (OJ L 221, 8.8.1998, p. 23): Article 4	=	The scheme is regularly updated based on the evolution of the scientific research and the evolution of laws.

Certified Sustainable Beef Framework

Main issue	Requirements and standards		Contribution	Justification
Climate change (mitigation of and adaptation to)	GAEC 1	Maintenance of permanent grassland based on a ratio of permanent grassland in relation to agricultural area at national, regional, subregional, group-of-holdings or holding level in comparison to the reference year 2018 Maximum decrease of 5 % compared to the reference year	-	The CSBF standard does not provide any requirement regarding the share of permanent grassland. However, an effort of preservation is carried through the operation "Grasslands, tame pastures and native ecosystems are maintained or enhanced" for operations involving grazing land, aiming at monitor and manage grasslands, tame pastures and/or native ecosystems.
	GAEC 2	Protection of wetland and peatland	+	Wetlands are directly addressed in the CSBF specification through its operation "Riparian areas, wetlands, surface and ground water sources and nutrient runoff are responsibly managed to help maintain or enhance watershed health". Concerning wetlands, the lower objective of the operation is to monitor and manage riparian areas and wetlands (level 1 Achievement). Under the level 2 (Innovation) and 3 (Excellence), farmers have the obligation to implement: <ul style="list-style-type: none"> a grazing management plan that minimizes impacts to water quality when cattle are on pasture, documented, reviewed and updated annually as needed a nutrient management plan that minimizes impacts to water quality when cattle are fed intensively is implemented, documented, reviewed and updated annually as needed
	GAEC 3	Ban on burning arable stubble, except for plant health reasons	/	
	SMR 1	Directive 2000/60/EC of 23 October 2000 of the European Parliament and of the Council establishing a framework for Community action in the field of water policy (OJ L 327, 22.12.2000, p. 1): Article 11(3), point (e), and point (h), as regards mandatory requirements to control diffuse sources of pollution by phosphates	/	
Water	SMR 2	Council Directive 91/676/EEC of 12 December 1991 concerning the protection of waters against pollution caused by nitrates from agricultural sources (OJ L 375, 31.12.1991, p. 1): Articles 4 and 5	nd	The CSBF provides specifications regarding the limitation of water pollution, through grazing management and inputs use and storage requirements. At level 2 ("Innovation"), specifications require the implementation of a grazing management plan (when cattle is in pasture) and a nutrient management plan (when cattle is fed intensively) to reduce the impact on water quality. Additionally, the level 3 (Excellence) of the measure "Crop input products are safely and responsibly used, stored and disposed" imposes the implementation of an emergency spill plan, indirectly contributing to limit the impact of potential pollution in waters. However, no mention to Nitrate Vulnerable Zones and national codes of good agricultural practices can be found.

	GAEC 4	Establishment of buffer strips along water courses (minimum width of 3 meters without using pesticides and fertilisers)	nd	"Riparian areas and wetlands shall be monitored and managed."
Soil (protection and quality)	GAEC 5	Tillage management, reducing the risk of soil degradation and erosion, including consideration of the slope gradient	+	The prevention of soil degradation is addressed in the CSBF standard, but not regarding tillage only. The measure "Soil health is maintained or enhanced" requires that soil erosion, compaction and degradation shall be monitored and managed, as a minimum requirement to obtain the CSBF certification.
	GAEC 6	Minimum soil cover to avoid bare soil in periods that are most sensitive	/	
	GAEC 7	Crop rotation in arable land, except for crops growing under water	/	
	SMR 3	Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds (OJ L 20, 26.1.2010, p. 7): Article 3(1), Article 3(2), point (b), Article 4(1), (2) and (4)	+	The CSBF addresses measures regarding the preservation of natural habitats with its operation "Habitat for wildlife is maintained or enhanced, and wildlife conflict prevention is managed". The minimum requirement imposes that wildlife that is present on the area shall be known, monitored and management practices to help maintain wildlife and address predators shall be adopted. The level 2 (Achievement) and 3 (Excellence) go further, with the obligation to implement an inventory of wildlife, improve habitats and implement wildlife conflict negotiation efforts.
Biodiversity and landscape (protection and quality)	SMR 4	Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild flora and fauna (OJ L 206, 22.7.1992, p. 7): Article 6(1) and (2)	+	The CSBF addresses measures regarding the preservation of natural habitats with its operation "Habitat for wildlife is maintained or enhanced, and wildlife conflict prevention is managed". The minimum requirement imposes that wildlife that is present on the area shall be known, monitored and management practices to help maintain wildlife and address predators shall be adopted. The level 2 (Achievement) and 3 (Excellence) go further, with the obligation to implement an inventory of wildlife, improve habitats and implement wildlife conflict negotiation efforts.
	GAEC 8	Minimum share of agricultural area devoted to non-productive areas or features - Minimum share of at least 4 % of arable land at farm level devoted to non-productive areas and features, including land lying fallow. - Where a farmer commits to devote at least 7 % of his/her arable land to non-productive areas or features, including land lying fallow, under an enhanced eco-scheme in accordance with Article 31(6), the share to be attributed to compliance with this GAEC standard shall be limited to 3 %. - Minimum share of at least 7 % of arable land at farm level if this includes also catch crops or nitrogen fixing crops, cultivated without the use of plant protection	/	There is no recommendation regarding non-productive area

		products, of which 3 % shall be land lying fallow or non-productive features. Member States should use the weighting factor of 0,3 for catch crops.		
		Retention of landscape features	=	There is a requirement for Grasslands, tame pastures and native ecosystems to be maintained or enhanced, through monitoring and management. Native ecosystems are defined as "terrestrial ecosystems including grasslands, woodlands and shrublands, primarily consisting of native plants; aquatic ecosystems that are comprised of naturally flowing and still water bodies, as well as naturally occurring wetlands and forests (i.e. treecovered areas)".
		Ban on cutting hedges and trees during the bird breeding and rearing season	nd	There is a requirement for Habitat for wildlife to be maintained or enhanced through knowledge, monitoring, and management practices to help maintain wildlife. But no explicit banning of cutting hedges and trees during the bird breeding and rearing season.
		As an option, measures for avoiding invasive plant species	=	The framework supports prevention of invasive plant species through its operation "Grasslands, tame pastures and native ecosystems are maintained or enhanced", which aims at achieving a balanced approach to exotic and invasive plants, by inventorying them and implementing a plan to reduce their presence.
	GAEC 9	Ban on converting or ploughing permanent grassland designated as environmentally-sensitive permanent grasslands in Natura 2000 sites	nd	There is a requirement for Grasslands, tame pastures and native ecosystems to be maintained or enhanced through monitoring and management.
Food safety	SMR 5	Regulation (EC) No 178/2002 of the European Parliament and of the Council of 28 January 2002 laying down the general principles and requirements of food law, establishing the European Food Safety Authority and laying down procedures in matters of food safety (OJ L 31, 1.2.2002, p. 1): Articles 14 and 15, Article 17(1)1 and Articles 18, 19 and 20	+	CSBF requires under its measure "Operation contributes to the production of safe food" to implement on-farm food security training (with industry association programs or veterinary clinics), work with bovine veterinarian. It also imposes that broken needles and other physical risks shall be managed appropriately to avoid entry in the food chain. Additionally, ruminant and nonruminant feed must be separated as-well-as equipment used for mixing
	SMR 6	Council Directive 96/22/EC of 29 April 1996 concerning the prohibition on the use in stockfarming of certain substances having a hormonal or thyrostatic action and beta-agonists, and repealing Directives 81/602/EEC, 88/146/EEC and 88/299/EEC (OJ L 125, 23.5.1996, p. 3): Article 3, points (a), (b), (d) and (e), and Articles 4, 5 and 7	-	The standard explicitly mentions that the measures implemented on the beef production operation shall support food safety. It refers to the obligation of drug withdrawal period prior slaughter, and to the requirement that suspect broken needles and other physical risks shall be managed appropriately to avoid entry into the food chain. However, no additional information regarding food safety are developed in the framework.

Plant protection products	SMR 7	Regulation (EC) No 1107/2009 of the European Parliament and of the Council of 21 October 2009 concerning the placing of plant protection products on the market and repealing Council Directives 79/117/EEC and 91/414/EEC (OJ L 309, 24.11.2009, p. 1): Article 55, first and second sentence	= or +	A dedicated measure under the CSBF specification is oriented toward the proper use of phytopharmaceutical products: "Crop input products are safely and responsibly used, stored and disposed". The lower requirements are that input products shall be stored in a manner that reduces risks of contamination and pollution, and be used according to label instructions. Level 2 (Achievement) and 3 (Excellence) impose worker training in the use of such products, the implementation of an emergency spill plan and an integrated pest management plan.
	SMR 8	Directive 2009/128/EC of the European Parliament and of the Council of 21 October 2009 establishing a framework for Community action to achieve the sustainable use of pesticides (OJ L 309, 24.11.2009, p. 71): Article 5(2) and Article 8(1) to (5) Article 12 with regard to restrictions on the use of pesticides in protected areas defined on the basis of Directive 2000/60/EC and Natura 2000 legislation Article 13(1) and (3) on handling and storage of pesticides and disposal of remnants	-	No explicit reference to issues raised by Directive 2009/128/EC of the European Parliament on the restricted use of pesticides in protected areas. However, the standards refer to the worker training in using pesticides, products storage and the management of spills under the measure "Crop input products are safely and responsibly used, stored and disposed".
Animal welfare	SMR 9	Council Directive 2008/119/EC of 18 December 2008 laying down minimum standards for the protection of calves (OJ L 10, 15.1.2009, p. 7): Articles 3 and 4	nd	Regarding calve cattle, CSBF specifications does not mention density of rearing or space allowed. The only reference in terms of space availability for cattle is mentioned under measure "Feeding areas and pastures allow cattle to express normal behaviours including resting postures", that does not only concern calves, and requires that all cattle should be able to lay down at the same time, cattle could move freely and have access feed and water.
	SMR 10	Council Directive 2008/120/EC of 18 December 2008 laying down minimum standards for the protection of pigs (OJ L 47, 18.2.2009, p. 5): Articles 3 and 4	/	
	SMR 11	Council Directive 98/58/EC of 20 July 1998 concerning the protection of animals kept for farming purposes (OJ L 221, 8.8.1998, p. 23): Article 4	=	The CSBF standards provides requirements for animal health and welfare covering various topics (nutrition and feed management, safety and emergency, water, extreme weather, temperature, and humidity, etc.). All requirements are set according to the national Codes: <ul style="list-style-type: none"> • Code of Practices for the Care and Handling of Beef Cattle • Code of Practices for the Care and Handling of Dairy Cattle (being revised) • Code of Practices for the Care and Handling of Veal Calves These codes are set by the National Farm Animal Care Council (NFACC).

Equalitas

Main issue	Requirements and standards		Contribution	Justification
Climate change (mitigation of and adaptation to)	GAEC 1	Maintenance of permanent grassland based on a ratio of permanent grassland in relation to agricultural area at national, regional, subregional, group-of-holdings or holding level in comparison to the reference year 2018 Maximum decrease of 5 % compared to the reference year	/	Not covered
	GAEC 2	Protection of wetland and peatland	/ or =	5.2.7.2 M: Should the Organisation own a vineyard area larger than 15 hectares, it identifies and characterises the semi- natural areas and formalises potential improvement plans for their functions, including interconnection. 5.2.7.3 M: The Organisation protects all water bodies, wooded areas and seminatural areas by implementing buffer strips at least 3 meters wide, vegetated, not fertilised, not treated with crop protection products.organization But vineyards with an area of less than 15 hectares are not concerned by these requirements.
	GAEC 3	Ban on burning arable stubble, except for plant health reasons	/	Not covered
Water	SMR 1	Directive 2000/60/EC of 23 October 2000 of the European Parliament and of the Council establishing a framework for Community action in the field of water policy (OJ L 327, 22.12.2000, p. 1): Article 11(3), point (e), and point (h), as regards mandatory requirements to control diffuse sources of pollution by phosphates	+	5.2.3.1 M: The Organisation defines and adopts an irrigation plan with a view to rationalising water consumption 5.2.3.2 M: The Organisation records on specific "irrigation sheets": a) dates and volumes b) rain, with data obtainable from rain gauges, weather huts or by the Weather Service of reference. 5.2.3.3 R: The need for irrigation is also defined on the basis of the water balance validated by instrumental measurements 5.2.3.4 R: The Organisation respects the following maximum volumes per irrigation and per hectare: loose soil 350 mc/ha (35 mm); medium mixture soil 450 mc/ha (45 mm); clayey soil 550 mc/ha (55mm). 5.2.3.5 R: The Organisation adopts micro flow systems resulting in the possibility of performing fertirrigation

Soil (protection and quality)				<p>Annual fertilisation plan shall be adopted, based on the visual analysis of the vegetation and production conditions of the vineyard, the soil analysis and possibly the foliar analysis.</p> <p>The soil analysis includes, at least, information relating to: grain size, pH, cation exchange capacity, organic substance, total limestone, active limestone, total nitrogen, potassium exchange and assimilable phosphorus.</p>
	SMR 2	Council Directive 91/676/EEC of 12 December 1991 concerning the protection of waters against pollution caused by nitrates from agricultural sources (OJ L 375, 31.12.1991, p. 1): Articles 4 and 5	nd	<p>Annual fertilisation plan shall be adopted, based on the visual analysis of the vegetation and production conditions of the vineyard, the soil analysis and possibly the foliar analysis.</p> <p>The soil analysis includes, at least, information relating to: grain size, pH, cation exchange capacity, organic substance, total limestone, active limestone, total nitrogen, potassium exchange and assimilable phosphorus</p> <p>If above 60 kg/ha, the Organisation splits the nitrogen share into at least two operations, except for slow nitrogen release fertilisers.</p> <p>But no mention is found on vulnerable nitrate zones and associated good agricultural practices.</p>
	GAEC 4	Establishment of buffer strips along water courses (minimum width of 3 meters without using pesticides and fertilisers)	=	A requirement sets that all water bodies, wooded areas and seminatural areas shall be protected by implementing buffer strips at least 3 meters wide, vegetated, not fertilised, not treated with crop protection products.
	GAEC 5	Tillage management, reducing the risk of soil degradation and erosion, including consideration of the slope gradient	-	Requirements related to the depth of ploughing and tilling, however, no consideration of the slope gradient: "The Organisation avoids deep ploughing and carries out a medium depth subsoiling, together with tilling at a depth of no more than 30 cm."
	GAEC 6	Minimum soil cover to avoid bare soil in periods that are most sensitive	-	<p>There is a recommendation for the farm to ensure a degree of grassing in the inter-row of more than 90% (not compulsory).</p> <p>There is a minor requirement for the farm to carry out the grassing of the inter-row, which may be permanent or temporary, spontaneous or artificial (not compulsory).</p> <p>Chemical weeding operations are not allowed between the vine rows.</p>
	GAEC 7	Crop rotation in arable land, except for crops growing under water	/	Not covered

Biodiversity and landscape (protection and quality)	SMR 3	Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds (OJ L 20, 26.1.2010, p. 7): Article 3(1), Article 3(2), point (b), Article 4(1), (2) and (4)	-	<p>Not compulsory recommendations:</p> <p>5.2.7.7. R: The Organisation performs mowing on alternate rows and staggered over time.</p> <p>5.2.7.8 R: The Organisation possesses an updated list of threatened and protected plant or animal species present in the area where the property and the land under direct management are located.</p> <p>5.2.7.9 R: The Organisation supports or participates in flora and fauna preservation programmes</p>
	SMR 4	Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild flora and fauna (OJ L 206, 22.7.1992, p. 7): Article 6(1) and (2)	-	<p>Not compulsory recommendations:</p> <p>5.2.7.7. R: The Organisation performs mowing on alternate rows and staggered over time.</p> <p>5.2.7.8 R: The Organisation possesses an updated list of threatened and protected plant or animal species present in the area where the property and the land under direct management are located.</p> <p>5.2.7.9 R: The Organisation supports or participates in flora and fauna preservation programmes</p>
	GAEC 8	<p>Minimum share of agricultural area devoted to non-productive areas or features</p> <ul style="list-style-type: none"> - Minimum share of at least 4 % of arable land at farm level devoted to non-productive areas and features, including land lying fallow. - Where a farmer commits to devote at least 7 % of his/her arable land to non-productive areas or features, including land lying fallow, under an enhanced eco-scheme in accordance with Article 31(6), the share to be attributed to compliance with this GAEC standard shall be limited to 3 %. - Minimum share of at least 7 % of arable land at farm level if this includes also catch crops or nitrogen fixing crops, cultivated without the use of plant protection products, of which 3 % shall be land lying fallow or non-productive features. Member States should use the weighting factor of 0,3 for catch crops. 	/	/
		Retention of landscape features	nd	<p>5.2.7.3 M: The Organisation protects all water bodies, wooded areas and seminatural areas by implementing buffer strips at least 3 meters wide, vegetated, not fertilised, not treated with crop protection products.</p> <p>.The certified organisation must be « aware of the landscape in which it is located ».</p>
		Ban on cutting hedges and trees during the bird breeding and rearing season	nd	<p>This action is not clearly required.</p> <p>However, the organisation is recommended to:</p>

				<p>5.2.7.7. R: The Organisation performs mowing on alternate rows and staggered over time.</p> <p>5.2.7.8 R: The Organisation possesses an updated list of threatened and protected plant or animal species present in the area where the property and the land under direct management are located.</p> <p>5.2.7.9 R: The Organisation supports or participates in flora and fauna preservation programmes</p>
Food safety		As an option, measures for avoiding invasive plant species	/	/
	GAEC 9	Ban on converting or ploughing permanent grassland designated as environmentally-sensitive permanent grasslands in Natura 2000 sites	/	/
	SMR 5	Regulation (EC) No 178/2002 of the European Parliament and of the Council of 28 January 2002 laying down the general principles and requirements of food law, establishing the European Food Safety Authority and laying down procedures in matters of food safety (OJ L 31, 1.2.2002, p. 1): Articles 14 and 15, Article 17(1)1 and Articles 18, 19 and 20	-	Requirement on traceability, no requirements on food safety.
	SMR 6	Council Directive 96/22/EC of 29 April 1996 concerning the prohibition on the use in stockfarming of certain substances having a hormonal or thyrostatic action and beta-agonists, and repealing Directives 81/602/EEC, 88/146/EEC and 88/299/EEC (OJ L 125, 23.5.1996, p. 3): Article 3, points (a), (b), (d) and (e), and Articles 4, 5 and 7	/	No requirement on this topic
Plant protection products	SMR 7	Regulation (EC) No 1107/2009 of the European Parliament and of the Council of 21 October 2009 concerning the placing of plant protection products on the market and repealing Council Directives 79/117/EEC and 91/414/EEC (OJ L 309, 24.11.2009, p. 1): Article 55, first and second sentence	-	There is a minor requirement (not compulsory) for the farm to not use the plant protection products dangerous to human health listed in Annex V.

	SMR 8	Directive 2009/128/EC of the European Parliament and of the Council of 21 October 2009 establishing a framework for Community action to achieve the sustainable use of pesticides (OJ L 309, 24.11.2009, p. 71): Article 5(2) and Article 8(1) to (5) Article 12 with regard to restrictions on the use of pesticides in protected areas defined on the basis of Directive 2000/60/EC and Natura 2000 legislation Article 13(1) and (3) on handling and storage of pesticides and disposal of remnants	-	<p>There is a minor requirement (not compulsory) for the Organisation to adopt a washing water management plan for the defence equipment in order to prevent point source pollution and for the Organisation to adopt sustainable techniques for disposing of and managing the washing water used for cleaning the tools and machines used for treatments</p> <p>There is a compulsory implementation of buffer zone close to water course, with no treatment.</p> <p>Regarding the skills of people using pesticides, the certified organisation ensures that the personnel are employed with a qualification that is coherent with the duties performed</p> <p>No requirement on Natura 2000 areas.</p>
Animal welfare	SMR 9	Council Directive 2008/119/EC of 18 December 2008 laying down minimum standards for the protection of calves (OJ L 10, 15.1.2009, p. 7): Articles 3 and 4	/	/
	SMR 10	Council Directive 2008/120/EC of 18 December 2008 laying down minimum standards for the protection of pigs (OJ L 47, 18.2.2009, p. 5): Articles 3 and 4	/	/
	SMR 11	Council Directive 98/58/EC of 20 July 1998 concerning the protection of animals kept for farming purposes (OJ L 221, 8.8.1998, p. 23): Article 4	/	/

Global G.A.P Integrated Farm Assurance (IFA)

Main issue	Requirements and standards		Contribution	Justification
Climate change (mitigation of and adaptation to)	GAEC 1	Maintenance of permanent grassland based on a ratio of permanent grassland in relation to agricultural area at national, regional, subregional, group-of-holdings or holding level in comparison to the reference year 2018 Maximum decrease of 5 % compared to the reference year	/	Current version of IFA standard only recommends to give consideration to the conversion of unproductive sites (e.g. low-lying wet areas, woodlands, headland strips, or areas of impoverished soil etc.) to ecological focus areas for the encouragement of natural flora and fauna. NB: next version (V6) will include a new requirement: "in the farm, natural or semi-natural ecosystems and habitats and areas with legally recognized conservation value should not be converted in agricultural areas".
	GAEC 2	Protection of wetland and peatland	- (option)	Current version of IFA standard includes a "minor must" for producers to have a an action plan aiming to enhance habitats or maintaining biodiversity on farm, paying special attention to the areas of environmental interest being protected and make reference to the legislation where applicable. NB: next version (V6) will include a new requirement: "in the farm, natural or semi-natural ecosystems and habitats and areas with legally recognized conservation value should not be converted in agricultural areas".
	GAEC 3	Ban on burning arable stubble, except for plant health reasons	/	
Water	SMR 1	Directive 2000/60/EC of 23 October 2000 of the European Parliament and of the Council establishing a framework for Community action in the field of water policy (OJ L 327, 22.12.2000, p. 1): Article 11(3), point (e), and point (h), as regards mandatory requirements to control diffuse sources of pollution by phosphates	=	The standard includes the following requirements: "there are valid permit /licenses available issued by the competent authority for all farm water extraction, all on-farm water usage including irrigation, and where legally required, for water discharge into river courses or other environmentally sensitive areas" and "records shall be maintained and available to demonstrate that specific restrictions indicated by water permits/licenses are met".
	SMR 2	Council Directive 91/676/EEC of 12 December 1991 concerning the protection of waters against pollution caused by nitrates from agricultural sources (OJ L 375, 31.12.1991, p. 1): Articles 4 and 5	= (option)	The standard includes some specifications on fertilizers management, but these are "minor must" (certification is still granted if less than 5% of these criteria are not conform): take into account the contents of NPK nutrients in organic fertilizer applied in order to avoid soil contamination, sources of pollution (fertilizers excess) produced by the farm processes have been identified, records of application, knowledge of the content of major nutrients of applied fertilizers, manure shall be stored and protected to avoid leaches towards water sources.

	GAEC 4	Establishment of buffer strips along water courses (minimum width of 3 meters without using pesticides and fertilisers)	/	
Soil (protection and quality)	GAEC 5	Tillage management, reducing the risk of soil degradation and erosion, including consideration of the slope gradient	= (option)	The standard includes some non-mandatory guidance for improving soil structure and preventing soil erosion, such as minimum tillage. There is a "minor must" on the use of techniques to reduce the possibility of soil erosion such as cross lines techniques on slopes.
	GAEC 6	Minimum soil cover to avoid bare soil in periods that are most sensitive	- (option)	Among water management practices, the standard guidance suggests the planting of cover crops.
	GAEC 7	Crop rotation in arable land, except for crops growing under water	= (option)	Among soil water management practices, there is a "minor must" for "crop rotation for annual crops" "where feasible". It is also recommended as a preventive measure for soil pests, nematodes, or indirect source contamination.
Biodiversity and landscape (protection and quality)	SMR 3	Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds (OJ L 20, 26.1.2010, p. 7): Article 3(1), Article 3(2), point (b), Article 4(1), (2) and (4)	= (option)	Current version of IFA standard includes a "minor must" for producers to have an action plan aiming to enhance habitats or maintaining biodiversity on farm, paying special attention to the areas of environmental interest being protected and make reference to the legislation where applicable. Recommendations for conservation biological control include providing nesting places for predatory birds to control rodents. NB: next version (V6) will include a new requirement: "in the farm, natural or semi-natural ecosystems and habitats and areas with legally recognized conservation value should not be converted in agricultural areas".
	SMR 4	Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild flora and fauna (OJ L 206, 22.7.1992, p. 7): Article 6(1) and (2)	= (option)	Current version of IFA standard includes a "minor must" for producers to have a an action plan aiming to enhance habitats or maintaining biodiversity on farm, paying special attention to the areas of environmental interest being protected and make reference to the legislation where applicable.
	GAEC 8	Minimum share of agricultural area devoted to non-productive areas or features - Minimum share of at least 4 % of arable land at farm level devoted to non-productive areas and features, including land lying fallow. - Where a farmer commits to devote at least 7 % of his/her arable land to non-productive areas or features, including land lying fallow, under an enhanced eco-scheme in accordance with Article 31(6), the share to be attributed to compliance with this GAEC standard shall be limited to 3 %. - Minimum share of at least 7 % of arable land at farm level if this includes also catch crops or nitrogen fixing crops, cultivated without the use of plant protection	- (option)	There is a recommendation for the conversion of unproductive sites and identified areas that give priority to ecology into conservation areas. NB: next version (V6) will include new and updated criteria on biodiversity, including unproductive areas.

Food safety		products, of which 3 % shall be land lying fallow or non-productive features. Member States should use the weighting factor of 0,3 for catch crops.		
		Retention of landscape features	- (option)	There is a recommendation for the conversion of unproductive sites (e.g. low lying wet areas, woodlands, etc.) and identified areas that give priority to ecology into conservation areas.
		Ban on cutting hedges and trees during the bird breeding and rearing season	- (option)	There is a "minor must" for a wildlife management and conservation plan for the farm business, that "should pay special attention to areas of environmental interest being protected and make reference to legal requirements where applicable". Recommendations for conservation biological control include providing nesting places for predatory birds to control rodents.
		As an option, measures for avoiding invasive plant species	/	
	GAEC 9	Ban on converting or ploughing permanent grassland designated as environmentally-sensitive permanent grasslands in Natura 2000 sites	- (option)	There is a "minor must" for a wildlife management and conservation plan for the farm business, that "should pay special attention to areas of environmental interest being protected and make reference to legal requirements where applicable". NB: next version (V6) will include a new requirement: "in the farm, natural or semi-natural ecosystems and habitats and areas with legally recognized conservation value should not be converted in agricultural areas".
	SMR 5	Regulation (EC) No 178/2002 of the European Parliament and of the Council of 28 January 2002 laying down the general principles and requirements of food law, establishing the European Food Safety Authority and laying down procedures in matters of food safety (OJ L 31, 1.2.2002, p. 1): Articles 14 and 15, Article 17(1)1 and Articles 18, 19 and 20	=	GG certification requires compliance with Maximum Residue Levels of the countries of destination (including evidence of residue tests and an action plan in the event of an MRL is exceeded.
	SMR 6	Council Directive 96/22/EC of 29 April 1996 concerning the prohibition on the use in stockfarming of certain substances having a hormonal or thyrostatic action and beta-agonists, and repealing Directives 81/602/EEC, 88/146/EEC and 88/299/EEC (OJ L 125, 23.5.1996, p. 3): Article 3, points (a), (b), (d) and (e), and Articles 4, 5 and 7	/	

Plant protection products	SMR 7	Regulation (EC) No 1107/2009 of the European Parliament and of the Council of 21 October 2009 concerning the placing of plant protection products on the market and repealing Council Directives 79/117/EEC and 91/414/EEC (OJ L 309, 24.11.2009, p. 1): Article 55, first and second sentence	=	<p>GG certification requires that all the PPP applied are officially and currently authorized or permitted by the appropriate governmental organization in the country of application, and that PPP have been applied as recommended on the product label.</p> <p>Producers should have the basic information about their plant protection products (dose rates, optimal application technique, maximum number of applications per season...).</p> <p>GG certification requires a record system established for each unit of production to provide a record of the agronomic activities undertaken at each location.</p>
	SMR 8	Directive 2009/128/EC of the European Parliament and of the Council of 21 October 2009 establishing a framework for Community action to achieve the sustainable use of pesticides (OJ L 309, 24.11.2009, p. 71): Article 5(2) and Article 8(1) to (5) Article 12 with regard to restrictions on the use of pesticides in protected areas defined on the basis of Directive 2000/60/EC and Natura 2000 legislation Article 13(1) and (3) on handling and storage of pesticides and disposal of remnants	=	<p>GG certification requires a certificate of training and/or records of training with proof of attendance, including compliance with applicable legislation, for workers handling PPP and biocides.</p> <p>There is a minor must for demonstration of up-to-date maintenance of PPP sprayers during visual inspection and functional tests of application equipment.</p> <p>GG certification requires compliance of PPP storage with local regulations.</p>
Animal welfare	SMR 9	Council Directive 2008/119/EC of 18 December 2008 laying down minimum standards for the protection of calves (OJ L 10, 15.1.2009, p. 7): Articles 3 and 4	/	
	SMR 10	Council Directive 2008/120/EC of 18 December 2008 laying down minimum standards for the protection of pigs (OJ L 47, 18.2.2009, p. 5): Articles 3 and 4	/	
	SMR 11	Council Directive 98/58/EC of 20 July 1998 concerning the protection of animals kept for farming purposes (OJ L 221, 8.8.1998, p. 23): Article 4	/	

ANNEX 9 - ASSESSMENT OF THE USE OF CERTIFICATION SCHEMES AS ELIGIBILITY OR CONTROL CRITERION FOR ECO-SCHEME AND FOR MONITORING RESULTS

Haute Valeur Environnementale (HVE) – voie A

Type of practices	Potential practices that eco-schemes could support	Contribution	Justification
Organic farming practices	Conversion to organic farming	/	
	Maintenance of organic farming	/	
Integrated Pest Management practices	Buffer strips with management practices and without pesticide	+ (option)	Level 1 of environmental certification, which is a pre-requisite to level 3/HVE, requires farmers to comply with CAP conditionality, including GAEC 4 "Establishment of buffer strips along waterways". Besides, HVE standard scoring calculation includes items on: - the share of UAA involved in the AECM "COUVER_06" = Creation and maintenance of a perennial grass cover (grass strips or plots) - the share of total UAA covered by IAE including Watercourse buffer strips and perennial grassed buffer strips outside watercourses Scoring points are granted for a share of UAA > 5%
	Mechanical weed control	+ (option)	The standard scoring calculation includes an item on the share of UAA concerned by the use of alternative methods to chemical control, including mechanical weed control.
	Increased use of resilient, pest-resistant crop varieties and species	/	
	Land lying fallow with species composition for biodiversity purpose	+ (option)	HVE standard scoring calculation includes items on: - the share of UAA involved in the AECM "COUVER_08" = Fallow land improvement - the share of total UAA covered by IAE including land lying fallows for honey or beekeeping, for wildlife, or flowering fallow Scoring points are granted for a share of UAA > 5%
Agro-ecology	Crop rotation with leguminous crops	+ (option)	HVE standard scoring calculation includes an item on the share of leguminous crops in total UAA. Scoring points are granted for a share of UAA > 5%
	Mixed cropping - multi cropping	+ (option)	HVE standard scoring calculation includes an item on species and varietal diversity.

	Cover crop between tree rows on permanent crops - orchards, vineyards, olive trees - above conditionality	+ (option)	HVE standard scoring calculation includes an item on inter-row grassing (in vineyard, arboriculture and ornamental crops): share of grassed area in total area of permanent crop (min. 25%).
	Winter soil cover and catch crops above conditionality	PI	The impact of HVE standard will depend on national dispositions for GAEC 6. HVE standard scoring calculation for fertilization management includes an item on the percentage of the UAA covered in mid-November/autumn season. Soils are considered as covered if they have an established crop (ICNAF4 or catch crop) ; Rape seedlings ; volunteer winter cereals (within the limit of 20% of intercropped areas) ; Grain maize, sorghum or sunflower canes, crushed and buried. 1 points is granted for a share > 75%, 3 points for a share = 100%. But it is not clear whether this item goes beyond conditionality.
	Low intensity grass-based livestock system	/	
	Use of crops/plant varieties more resilient to climate change	+ (option)	The standard scoring calculation includes an item on the share of UAA covered by agronomic practices such as Drought tolerant plant species and varieties.
	Mixed species/diverse sward of permanent grassland for biodiversity purpose	+ (option)	The standard scoring calculation includes an item on the number of cultivated plant species, including for permanent grassland: each 10% of UAA in permanent grassland counts as a different species. Points are granted from 4 species and more.
	Improved rice cultivation to decrease methane emissions	/	
	Practices and standards as set under organic farming rules	-	The standard scoring calculation includes an item on the share of total UAA that is not treated with chemical phytosanitary products. The eligible area includes plots under organic agriculture. The standard also promotes biological control.
Husbandry and animal welfare plans including	Feeding plans: suitability of and access to feed and water, feed and water quality analyses optimised feed strategies	/	
	Friendly housing conditions: increased space allowances per animal, improved flooring , free farrowing, provision of enriched environment, shading/sprinklers/ventilation to cope with heat stress, access to roughage, provision of additional enrichment material.	/	
	Practices and standards as set under organic farming rules	/	

	Practices increasing animal robustness, fertility, longevity and adaptability; breeding lower emission animals, promoting genetic diversity and resilience	/	
	Animal health prevention and control plans: overall plan for reducing the risk of infections that require antimicrobials and covering all relevant husbandry practices	/	
	Providing access to pastures and increasing grazing period for grazing animals	/	
	Provide and manage regular access to open air areas	/	

THEMES OF DATA	RESULT INDICATOR	Contribution	Justification
Contribute to climate change mitigation and adaptation, as well as sustainable energy	R.12 Adaptation to climate change: Share of agricultural land under commitments to improve climate adaptation	NA	The standard does not explicitly target climate change adaptation but some practices are likely to positively contribute to better crop or livestock resilience, if selected by the farmers do reach the minimum score: - promotion of Drought tolerant plant species and varieties - other agronomic practices that save water resources (Sowing date, Mulching) - promotion of increased number of cultivated/raised varieties or species
	R.13 Reducing emissions in the livestock sector: Share of livestock units under support to reduce GHG emissions and/or ammonia, including manure management	/	No specific requirement
	R.14 Carbon storage in soils and biomass: Share of agricultural land under commitments to reducing emissions, maintaining and/or enhancing carbon storage (permanent grassland, agricultural land in peatland, forest, etc.)	NA	The standard does not explicitly target carbon storage or emissions reduction, but some practices of the scoring system are likely to contribute, if selected by the farmers to reach the minimum score: - share of UAA in permanent grassland - share of UAA in agroecological infrastructures
	R.15 Green energy from agriculture and forestry: Investments in renewable energy production capacity, including bio-based (MW)	/	No specific requirement

	R.16 Enhance energy efficiency: Energy savings in agriculture	/	No specific requirement
	R.17 Afforested land: Area supported for afforestation and creation of woodland, including agroforestry	NA	The standard scoring calculation includes an item on the share of UAA in agroecological infrastructures, including hedges, agroforestry and tree lines, that farmers can select or not to reach the minimum score.
Foster sustainable development and efficient management of natural resources such as water, soil and air	R.18 Improving soils: Share of agricultural land under management commitments beneficial for soil management	NA	The standard does not explicitly target soil quality, but the scoring calculation includes practices such as cover crops and fertilization management, if selected by the farmers to reach the minimum score.
	R.19 Improving air quality: Share of agricultural land under commitments to reduce ammonia emission	+	The standard scoring calculation includes a whole section on fertilization management, with items such as the nitrogen balance, the share of AUU not fertilized, use of decision support tools for fertilization management...
	R.20 Protecting water quality: Share of agricultural land under management commitments for water quality	NA	The standard does not explicitly target water quality but many practices are likely to positively contribute, if selected by the farmers (Conditions of application of treatments aiming at limiting leaks into the environment, buffer strips...)
	R.21 Sustainable nutrient management: Share of agricultural land under commitments related to improved nutrient management	+	The standard scoring calculation includes a whole section on fertilization management, with items such as the nitrogen balance, the share of UAA not fertilized, use of decision support tools for fertilization management...
	R.22 Sustainable water use: Share of irrigated land under commitments to improve water balance	+	The standard scoring selection includes a whole section on management of irrigation.
	R.23 Environment-/climate-related performance through investment: Share of farmers with support in investments related to care for the environment or climate	/	
	R.24 Environmental/climate performance through knowledge: Share of farmers receiving support for advice/training related to environmental- climate performance	/	
Contribute to the protection of biodiversity, enhance ecosystem services and preserve habitats and landscapes	R.25 Supporting sustainable forest management: Share of forest land under management commitments to support forest protection and management.	/	HVE certification scheme does not target forest land.
	R.26 Protecting Forest ecosystems: Share of forest land under management commitments for supporting landscape, biodiversity and ecosystem services	/	HVE certification scheme does not target forest land.

	R.27 Preserving habitats and species: Share of agricultural land under management commitments supporting biodiversity conservation or restoration	+	The standard scoring selection includes a whole section on biodiversity commitments.
	R.28 Supporting Natura 2000: Area in Natura 2000 sites under commitments for protection, maintenance and restoration	NA	The standard scoring calculation for biodiversity includes an item on the share of UAA in agro-ecological infrastructures, including “Permanent meadows, moors, pastures, alpine pastures, summer pastures located in Natura 2000 area”, that can be selected by the farmers.
	R.29 Preserving landscape features: Share of agriculture land under commitments for managing landscape features, including hedgerows	NA	The standard scoring calculation for biodiversity includes an item on the share of UAA in agro-ecological infrastructures.
Improve the response of EU agriculture to societal demands on food and health, including safe, nutritious and sustainable food, as well as animal welfare	R.36 Limiting antibiotic use: Share of livestock units concerned by supported actions to limit the use of antibiotics (prevention/reduction)	/	
	R.37 Sustainable pesticide use: Share of agricultural land concerned by supported specific actions which lead to a sustainable use of pesticides in order to reduce risks and impacts of pesticides	+	The standard scoring calculation includes a dedicated section on phytosanitary strategy, where farmers must reach at least 10 points by implementing specified practices.
	R.38 Improving animal welfare: Share of livestock units covered by supported action to improve animal welfare	/	

Integrowana Produkcja

Type of practices	Potential practices that eco-schemes could support	Contribution	Justification
Organic farming practices	Conversion to organic farming	/	
	Maintenance of organic farming	/	
Integrated Pest Management practices	Buffer strips with management practices and without pesticide	PI	"Protection of the aquatic environment and drinking water resources from the effects of pesticides should be realized by the establishment of buffer zones to limit water exposure to spray drift, seepage and run-off". But the binding level of this recommendation is hard to assess.
	Mechanical weed control	-	"Chemical plant protection should be replaced by alternative methods when justified." "Mechanical treatments during cultivation keep weed levels low, but research and practice show that they should be used in addition to herbicides applied before or after planting seedlings."
	Increased use of resilient, pest-resistant crop varieties and species	-	The IP methodology for broccoli emits recommendations on varieties selection: "The more resistant varieties are to abiotic (climate, soil properties, fertilization) and biotic (diseases) stresses, the more irrigation and plant protection can be reduced." But these specifications do not have any binding level.
	Land lying fallow with species composition for biodiversity purpose	+	The new standard requires the implementation of measures promoting biological diversity within and around the farm, especially beneficial organisms, including parasitic and predatory insects (creation of "buffer zones", introduction of nest boxes, leaving trees and bushes around and outside the farm).
Agro-ecology	Crop rotation with leguminous crops	+	Methodology for broccoli production recommends a crop rotation that takes into account a minimum 4-year rotation of plants, cultivation of catch crops, cultivation of plants from the faba bean family, leek, cucumber, spring cereals, grasses, resistant varieties of brassica plants to cabbage syphilis and other diseases of infectious origin. IP methodology for apple production includes the following point of control: "the use of a pre-crop consisting of a mixture of leguminous crops with cereals or phacelia, as well as the possibility of using mustard, velvetleaf or buckwheat to minimize the effects of soil fatigue, improve soil fertility and/or reduce soil pests."
	Mixed cropping - multi cropping	-	No dedicated requirement can be found in the list of points of control. The methodology for broccoli cultivation warns on the negative effects of monoculture.

	Cover crop between tree rows on permanent crops - orchards, vineyards, olive trees - above conditionality	PI	The methodology for apple cultivation includes following advice: "Cover crops are the optimal way to maintain orchard rows. Natural greening of the interrows is also allowed, especially if grasses such as annual panicle grow there. In hilly areas, in order to limit soil erosion, and on very fertile soils, turf is laid in the first year of orchard management. But no corresponding requirement is found in the points of control.
	Winter soil cover and catch crops above conditionality	PI	The methodology for hop cultivation specifies that "Tillage operations carried out during the hop plant vegetation period, such as scarifying between rows and covering plant rows, effectively reduce the weed infestation in in the hopper even to mid-July" but no strict requirement seems to be associated.
	Low intensity grass-based livestock system	/	
	Use of crops/plant varieties more resilient to climate change	-	The IP methodology for broccoli emits recommendations on varieties selection: "The more resistant varieties are to abiotic (climate, soil properties, fertilization) and biotic (diseases) stresses, the more irrigation and plant protection can be reduced." "In addition to typical plant protection products, it is very important to use the mechanisms of natural resistance of plants to biotic and abiotic stresses, i.e. selection of varieties, to maintain greater plantation and raw material health and/or minimize the negative effects of pathogens." But there is no specific mention to climate change resilience.
	Mixed species/diverse sward of permanent grassland for biodiversity purpose	PI	No mention of such specific requirement, although biodiversity-friendly measures are expected for the protection of beneficial organisms, including parasitic and predatory insects, by the creation of favourable conditions for their development, e.g., by ensuring biological biodiversity around the farm. Example of practices include the creation of "refuge zones", introduction of nest boxes, leaving trees and bushes around and outside the farm...
	Improved rice cultivation to decrease methane emissions	/	
	Practices and standards as set under organic farming rules	/	
Husbandry and animal welfare plans	Feeding plans: suitability of and access to feed and water, feed and water quality analyses optimised feed strategies	/	
	Friendly housing conditions: increased space allowances per animal, improved flooring, free farrowing, provision of enriched environment, shading/sprinklers/ventilation to cope with heat	/	

	stress, access to roughage, provision of additional enrichment material.		
	Practices and standards as set under organic farming rules	/	
	Practices increasing animal robustness, fertility, longevity and adaptability; breeding lower emission animals, promoting genetic diversity and resilience	/	
	Animal health prevention and control plans: overall plan for reducing the risk of infections that require antimicrobials and covering all relevant husbandry practices	/	
	Providing access to pastures and increasing grazing period for grazing animals	/	
	Provide and manage regular access to open air areas	/	

THEMES OF DATA	RESULT INDICATOR	Availability	Justification
Contribute to climate change mitigation and adaptation, as well as sustainable energy	R.12 Adaptation to climate change: Share of agricultural land under commitments to improve climate adaptation	/	
	R.13 Reducing emissions in the livestock sector: Share of livestock units under support to reduce GHG emissions and/or ammonia, including manure management	/	
	R.14 Carbon storage in soils and biomass: Share of agricultural land under commitments to reducing emissions, maintaining and/or enhancing carbon storage (permanent grassland, agricultural land in peatland, forest, etc.)	/	
	R.15 Green energy from agriculture and forestry: Investments in renewable energy production capacity, including bio-based (MW)	/	
	R.16 Enhance energy efficiency: Energy savings in agriculture	/	
	R.17 Afforested land: Area supported for afforestation and creation of woodland, including agroforestry	/	

Foster sustainable development and efficient management of natural resources such as water, soil and air	R.18 Improving soils: Share of agricultural land under management commitments beneficial for soil management	NA	Soil management is addressed by the IP scheme. It requires to use pre-crops to minimize the effects of soil fatigue, improve soil fertility and/or reduce soil pests, and requires to conduct soil analysis on the organic matter and available phosphorus, potassium and magnesium. However, the hectares covered by practices targeting specifically soil management could not be determined.
	R.19 Improving air quality: Share of agricultural land under commitments to reduce ammonia emission	/	
	R.20 Protecting water quality: Share of agricultural land under management commitments for water quality	NA	The IP scheme requires the recording of daily rainfall and temperature immediately before and after the application of plant protection products. However the hectares covered by practices targeting specifically water quality could not be determined.
	R.21 Sustainable nutrient management: Share of agricultural land under commitments related to improved nutrient management	NA	Nutrient and fertilization management is directly addressed by the IP scheme, as the application of mineral/organic fertilizers or soil amendments containing nitrogen, phosphorus, potassium and/or magnesium must be adapted to the analysis of soil and plant needs. However, the hectares covered by practices targeting nutrient management could not be determined.
	R.22 Sustainable water use: Share of irrigated land under commitments to improve water balance	/	IP scheme does not address water resources and irrigation management.
	R.23 Environment-/climate-related performance through investment: Share of farmers with support in investments related to care for the environment or climate	/	
	R.24 Environmental/climate performance through knowledge: Share of farmers receiving support for advice/training related to environmental-climate performance	NA	The IP certification requires farmers to complete a training on IP production. However, whether they receive support or not is unknown.
Contribute to the protection of biodiversity,	R.25 Supporting sustainable forest management: Share of forest land under management commitments to support forest protection and management.	/	

enhance ecosystem services and preserve habitats and landscapes	R.26 Protecting Forest ecosystems: Share of forest land under management commitments for supporting landscape, biodiversity and ecosystem services	/	
	R.27 Preserving habitats and species: Share of agricultural land under management commitments supporting biodiversity conservation or restoration	NA	The IP scheme requires the implementation of biodiversity-friendly measures inside and around the farm, to promote biological control (creation of "refuge zones", introduction of nest boxes, maintenance of trees and bushes etc.). However the hectares covered by practices targeting biodiversity could not be determined.
	R.28 Supporting Natura 2000: Area in Natura 2000 sites under commitments for protection, maintenance and restoration	/	
	R.29 Preserving landscape features: Share of agriculture land under commitments for managing landscape features, including hedgerows	NA	The IP scheme requires the implementation of biodiversity-friendly measures inside and around the farm, to promote biological control (creation of "refuge zones", introduction of nest boxes, maintenance of trees and bushes etc.). However the hectares covered by practices targeting landscape features could not be determined.
Improve the response of EU agriculture to societal demands on food and health, including safe, nutritious and sustainable food, as well as animal welfare	R.36 Limiting antibiotic use: Share of livestock units concerned by supported actions to limit the use of antibiotics (prevention/reduction)	/	
	R.37 Sustainable pesticide use: Share of agricultural land concerned by supported specific actions which lead to a sustainable use of pesticides in order to reduce risks and impacts of pesticides	+	Sustainable use of pesticides is the core of IP scheme. It can be estimated that all the agricultural land certified is concerned by related actions.
	R.38 Improving animal welfare: Share of livestock units covered by supported action to improve animal welfare	/	

IP Sigill-certifierad and Svenskt Sigill-märke

Type of practices	Potential practices that eco-schemes could support	Contribution	Justification
Organic farming practices	Conversion to organic farming	/	
	Maintenance of organic farming	/	
Integrated Pest Management practices	Buffer strips with management practices and without pesticide	+	
	Mechanical weed control	-	No requirement
	Increased use of resilient, pest-resistant crop varieties and species	+	4.10.3 Combinable Crops Preventive plant protection measures shall be taken in the cultivation to reduce the presence and consequence of attacks by pests and weeds, thus reducing the need for chemical control.
	Land lying fallow with species composition for biodiversity purpose	-	No requirement
Agro-ecology	Crop rotation with leguminous crops	+ (option)	No requirement in general standards. If climate option is chosen, specific rules apply: "6.1.K Combinable Crops -Legumes must be incorporated into leys with at least 10 % of the seed mixture or 20 % of the plants in the field."
	Mixed cropping - multi cropping	+ (option)	No requirement in general standards. If climate option is chosen, specific rules apply: "6.1.K Combinable Crops -Legumes must be incorporated into leys with at least 10 % of the seed mixture or 20 % of the plants in the field."
	Cover crop between tree rows on permanent crops - orchards, vineyards, olive trees - above conditionality	-	No requirement
	Winter soil cover and catch crops above conditionality	-	No requirement
	Low intensity grass-based livestock system	+ (option)	No requirement in general standards. If Nature Pasture option is chosen, specific rules apply
	Use of crops/plant varieties more resilient to climate change	-	No requirement even in the climate option
	Mixed species/diverse sward of permanent grassland for biodiversity purpose	+ (option)	No requirement in general standards. If climate option is chosen, specific rules apply: "6.1.K Combinable Crops -Legumes

			must be incorporated into leys with at least 10 % of the seed mixture or 20 % of the plants in the field."
	Improved rice cultivation to decrease methane emissions	/	
	Practices and standards as set under organic farming rules	/	
Husbandry and animal welfare plans including	Feeding plans: suitability of and access to feed and water, feed and water quality analyses, optimised feed strategies	+	IP standards provides rules in order to offer access to good to quality feed and water (chapters 4 and 6).
	Friendly housing conditions: increased space allowances per animal, improved flooring, free farrowing, provision of enriched environment, shading/sprinklers/ventilation to cope with heat stress, access to roughage, provision of additional enrichment material.	PI	IP module is based on the Swedish Animal Welfare Act which have its own requirements on the environment where the animals are kept and space allowance per animal. IP standards provides additional rules to favour natural behaviour such free farrowing for pigs, shading equipment and ventilation, natural light, roughage-based ration that contains at least 50 % (dm) roughage/pasture on an annual basis for cattle (6.9). etc.
	Practices and standards as set under organic farming rules	PI	On farms with certified milk production the use of plant protection products on pasture or on ley that are intended for cattle used for milk production are not allowed. (6.9)
	Practices increasing animal robustness, fertility, longevity and adaptability; breeding lower emission animals, promoting genetic diversity and resilience	+ (option)	IP SIGILL general standards do not provide specific measures. However, if the option "climate" is selected, measures have to take to reduce GHG emissions (age limit, feed should be produced on farm at 70% at least, soybean meal should be certified or be sourced from area not under deforestation threat...)
	Animal health prevention and control plans: overall plan for reducing the risk of infections that require antimicrobials and covering all relevant husbandry practices	+	IP SIGILL standards requires the implementation of hygiene routines regarding feed and animal health that reduce the risk of diseases and thus the potential use of antibiotics.
	Providing access to pastures and increasing grazing period for grazing animals	+	IP SIGILL standards provides minimum requirements regarding pasture access for cattle (4.5.S: During the pasture season the cattle kept for milk- or meat production shall be kept on pasture that last at least 60, 90 or 120 days per year, depending on region and age).
	Provide and manage regular access to open air areas	+	IP SIGILL standards provides minimum requirements regarding pasture access for cattle (4.5.S: During the pasture season the cattle kept for milk- or meat production shall be kept on pasture that last at least 60, 90 or 120 days per year, depending on region and age) and for laying hens (4.8 Laying hens shall have free outdoor access which is designed so that diseases and injuries are prevented and that the laying hens feel safe). No requirements of outdoor access have been set up for pig and broiler productions

THEMES OF DATA	RESULT INDICATOR	Availability	Justification
Contribute to climate change mitigation and adaptation, as well as sustainable energy	R.12 Adaptation to climate change: Share of agricultural land under commitments to improve climate adaptation	/	The issue is addressed for the farms which choose the climate option. Data could be available for these farms.
	R.13 Reducing emissions in the livestock sector: Share of livestock units under support to reduce GHG emissions and/or ammonia, including manure management	/	The issue is addressed for the farms which choose the climate option. Data could be available for these farms.
	R.14 Carbon storage in soils and biomass: Share of agricultural land under commitments to reducing emissions, maintaining and/or enhancing carbon storage (permanent grassland, agricultural land in peatland, forest, etc.)	/	The issue is addressed for the farms which choose the climate option. Data could be available for these farms.
	R.15 Green energy from agriculture and forestry: Investments in renewable energy production capacity, including bio-based (MW)	/	The issue is addressed for the farms which choose the climate option. Data could be available for these farms.
	R.16 Enhance energy efficiency: Energy savings in agriculture	/	The issue is addressed for the farms which choose the climate option. Data could be available for these farms.
	R.17 Afforested land: Area supported for afforestation and creation of woodland, including agroforestry	/	The issue is addressed for the farms which choose the climate option. Data could be available for these farms.
Foster sustainable development and efficient management of natural resources such as water, soil and air	R.18 Improving soils: Share of agricultural land under management commitments beneficial for soil management	NA	
	R.19 Improving air quality: Share of agricultural land under commitments to reduce ammonia emission	/	
	R.20 Protecting water quality: Share of agricultural land under management commitments for water quality	NA	
	R.21 Sustainable nutrient management: Share of agricultural land under commitments related to improved nutrient management	NA	IP Sigill requires sustainable nutrient management and the agricultural land under the certification scheme can feed the indicator.
	R.22 Sustainable water use: Share of irrigated land under commitments to improve water balance	/	

	R.23 Environment-/climate-related performance through investment: Share of farmers with support in investments related to care for the environment or climate	/	
	R.24 Environmental/climate performance through knowledge: Share of farmers receiving support for advice/training related to environmental- climate performance	NA	
Contribute to the protection of biodiversity, enhance ecosystem services and preserve habitats and landscapes	R.25 Supporting sustainable forest management: Share of forest land under management commitments to support forest protection and management.	/	
	R.26 Protecting Forest ecosystems: Share of forest land under management commitments for supporting landscape, biodiversity and ecosystem services	/	
	R.27 Preserving habitats and species: Share of agricultural land under management commitments supporting biodiversity conservation or restoration	NA	
	R.28 Supporting Natura 2000: Area in Natura 2000 sites under commitments for protection, maintenance and restoration	/	
	R.29 Preserving landscape features: Share of agriculture land under commitments for managing landscape features, including hedgerows	NA	
Improve the response of EU agriculture to societal demands on food and health, including safe, nutritious and sustainable food, as well as animal welfare	R.36 Limiting antibiotic use: Share of livestock units concerned by supported actions to limit the use of antibiotics (prevention/reduction)	/	IP Sigill requires sustainable the implementation of animal health and welfare plan. The livestock units covered by the certification scheme can feed the indicator.
	R.37 Sustainable pesticide use: Share of agricultural land concerned by supported specific actions which lead to a sustainable use of pesticides in order to reduce risks and impacts of pesticides	+	
	R.38 Improving animal welfare: Share of livestock units covered by supported action to improve animal welfare	/	IP Sigill requires sustainable the implementation of animal health and welfare plan. The livestock units covered by the certification scheme can feed the indicator.

Leaf marque

Type of practices	Potential practices that eco-schemes could support	Contribution	Justification
Organic farming practices	Conversion to organic farming	/	
	Maintenance of organic farming	/	
Integrated Pest Management practices	Buffer strips with management practices and without pesticide	+	3.7 Steps are taken to minimise damage to beneficial and non-target species- Evidence could include use of selective plant protection products (PPPs), evidence of predators, buffer zones, minimal cultivation and use of Environmental Information Sheets (EIS)
	Mechanical weed control	PI	3.2 There are strategies to avoid weed, disease and pest resistance to herbicides, fungicides and insecticides. However mechanical weed control is not compulsory.
	Increased use of resilient, pest-resistant crop varieties and species	PI	No measure is mentioned but it is a current practice in integrated pest management farms.
	Land lying fallow with species composition for biodiversity purpose	+	8.15 Native habitat banks are present in fields larger than 20 hectares. 8.23 There is a minimum of 5% farm area available as appropriate habitats, not used for cropping and food production.
Agro-ecology	Crop rotation with leguminous crops	/	no requirement
	Mixed cropping - multi cropping	+	2.6 There is a long-term cropping plan.
	Cover crop between tree rows on permanent crops - orchards, vineyards, olive trees - above conditionality	/	
	Winter soil cover and catch crops above conditionality	/	
	Low intensity grass-based livestock system	PI	5.1 Measures are taken to avoid damage to grassland by livestock and to optimise biodiversity however it does not imply the reduction of the intensity of the farm production neither a grass-based livestock system.
	Use of crops/plant varieties more resilient to climate change	-	no requirement
	Mixed species/diverse sward of permanent grassland for biodiversity purpose	-	no requirement

	Improved rice cultivation to decrease methane emissions	/	
	Practices and standards as set under organic farming rules	/	
Husbandry and animal welfare plans including	Feeding plans: suitability of and access to feed and water, feed and water quality analyses, optimised feed strategies	+	5.1 Measures are taken to avoid damage to grassland by livestock and to optimise biodiversity 5.12 There is an Animal Feed Audit 5.13 There is an implemented Action Plan based on the Animal Feed Audit.
	Friendly housing conditions: increased space allowances per animal, improved flooring, free farrowing, provision of enriched environment, shading/sprinklers/ventilation to cope with heat stress, access to roughage, provision of additional enrichment material.	-	Some requirements are related to good housing conditions however it does not provide measure or recommendation regarding higher space allowances, improved flooring, free farrowing enriched environment.
	Practices and standards as set under organic farming rules	/	
	Practices increasing animal robustness, fertility, longevity and adaptability; breeding lower emission animals, promoting genetic diversity and resilience	/	no requirement
	Animal health prevention and control plans: overall plan for reducing the risk of infections that require antimicrobials and covering all relevant husbandry practices	+	5.7 There is an implemented Livestock Health Plan. Plan includes reference to the following: <ul style="list-style-type: none"> • targets to prevent resistance build-up to veterinary medicines • adoption of non-chemical methods to optimise fertility, production, health and welfare, where relevant • biosecurity
	Providing access to pastures and increasing grazing period for grazing animals	-	no requirement
	Provide and manage regular access to open air areas	-	no requirement

THEMES OF DATA	RESULT INDICATOR	Availability	Justification
Contribute to climate change mitigation and adaptation, as well as sustainable energy	R.12 Adaptation to climate change: Share of agricultural land under commitments to improve climate adaptation	/	
	R.13 Reducing emissions in the livestock sector: Share of livestock units under support to reduce GHG emissions and/or ammonia, including manure management	/	
	R.14 Carbon storage in soils and biomass: Share of agricultural land under commitments to reducing emissions, maintaining and/or enhancing carbon storage (permanent grassland, agricultural land in peatland, forest, etc.)	NA	No data are available regarding the share of agricultural land covered by Leaf committed to reduce GHG or to enhance carbon sequestration. However, 42% of the farms under Leaf record soil organic matter and 39% use a carbon footprint tool.
	R.15 Green energy from agriculture and forestry: Investments in renewable energy production capacity, including bio-based (MW)	/	
	R.16 Enhance energy efficiency: Energy savings in agriculture	NA	Energy efficiency is addressed by Leaf standards. Energy consumption should be monitored, and a dedicated energy action should be implemented to reduce energy consumption. However the amount of energy saved through the implementation of Leaf standards is not known.
	R.17 Afforested land: Area supported for afforestation and creation of woodland, including agroforestry	/	
Foster sustainable development and efficient management of natural resources such as water, soil and air	R.18 Improving soils: Share of agricultural land under management commitments beneficial for soil management	NA	Integrated farm management is the core of the Leaf scheme. It requires to develop strategies and practices to improve soil management. However the hectares covered by practices targeting specifically soil management could not be determined.
	R.19 Improving air quality: Share of agricultural land under commitments to reduce ammonia emission	/	
	R.20 Protecting water quality: Share of agricultural land under management commitments for water quality	+	Leaf scheme entails a water management plan. 44% of the farms covered carry out water management plan

	R.21 Sustainable nutrient management: Share of agricultural land under commitments related to improved nutrient management	NA	Integrated farm management is the core of the Leaf scheme. It requires to develop strategies and practices to improve nutrient management. However the hectares covered by practices targeting specifically nutrient management could not be determined.
	R.22 Sustainable water use: Share of irrigated land under commitments to improve water balance	NA	Leaf scheme entails a water management plan. It requires to develop strategies and practices to improve use efficiency and water quality However the hectares covered by practices targeting specifically water balance could not be determined.
	R.23 Environment-/climate-related performance through investment: Share of farmers with support in investments related to care for the environment or climate	/	
	R.24 Environmental/climate performance through knowledge: Share of farmers receiving support for advice/training related to environmental- climate performance	/	
Contribute to the protection of biodiversity, enhance ecosystem services and preserve habitats and landscapes	R.25 Supporting sustainable forest management: Share of forest land under management commitments to support forest protection and management.	/	
	R.26 Protecting Forest ecosystems: Share of forest land under management commitments for supporting landscape, biodiversity and ecosystem services	/	
	R.27 Preserving habitats and species: Share of agricultural land under management commitments supporting biodiversity conservation or restoration	+	Landscape and Nature conservation are at the core Leaf scheme . The average area habitat account for 13% of the total agricultural area of the farms covered by Leaf in 2021 (Global Impacts report, 2021)..
	R.28 Supporting Natura 2000: Area in Natura 2000 sites under commitments for protection, maintenance and restoration	/	
	R.29 Preserving landscape features: Share of agriculture land under commitments for managing landscape features, including hedgerows	+	Leaf scheme requires the identification, mapping and preservation of environmental features.

<p>Improve the response of EU agriculture to societal demands on food and health, including safe, nutritious and sustainable food, as well as animal welfare</p>	<p>R.36 Limiting antibiotic use: Share of livestock units concerned by supported actions to limit the use of antibiotics (prevention/reduction)</p>	<p>+</p>	<p>57% of the livestock covered by Leaf carry out antibiotic best practices</p>
	<p>R.37 Sustainable pesticide use: Share of agricultural land concerned by supported specific actions which lead to a sustainable use of pesticides in order to reduce risks and impacts of pesticides</p>	<p>+</p>	<p>Integrated Pest management is part of the Integrated Farm Management which is the core of Leaf Marque. The area covered by Leaf addresses the sustainable use of pesticides (289 185 ha)</p>
	<p>R.38 Improving animal welfare: Share of livestock units covered by supported action to improve animal welfare</p>	<p>+</p>	<p>Leaf scheme entails a Animal Health and Welfare plan. The share of livestock units covered by animal welfare actions is equivalent to all the livestock units under Leaf (54 700)</p>

Sistema di Qualità Nazionale di Produzione Integrata per le Produzioni Agricole (SQNPI)

Type of practices	Potential practices that eco-schemes could support	Contribution	Justification
Organic farming practices	Conversion to organic farming	/	
	Maintenance of organic farming	/	
Integrated Pest Management practices	Buffer strips with management practices and without pesticide	/	
	Mechanical weed control	PI	National guidelines require to give preference to mechanical and physical weeding, or localized chemical treatments (e.g. weeding on the rows in the case of hoeing) to ensure weed control is directed towards precisely identified and evaluated targets. But this criteria is not mentioned in the control plan.
	Increased use of resilient, pest-resistant crop varieties and species	+	See specifications under the section "Varietal selection and propagation material"
	Land lying fallow with species composition for biodiversity purpose	+	See specifications under the section "Maintaining the natural agro-ecosystem"
Agro-ecology	Crop rotation with leguminous crops	+	Inclusion of leguminous crops in the rotation is recommended for many crops, and mandatory for some others (olive, wine): "it is compulsory to provide permanent or temporary grassing with grasses or leguminous crops or a combination of both".
	Mixed cropping - multi cropping	+	See specifications under the section "Crop rotation"
	Cover crop between tree rows on permanent crops - orchards, vineyards, olive trees - above conditionality	+	Mandatory inter-row grassing in tree plantations (all year round in tree plantations of hilly and mountainous areas with an average slope between 10% and 30%, in autumn and winter seasons in tree plantations in lowland areas)
	Winter soil cover and catch crops above conditionality	PI	It is not clear whether requirements in favour of soil protection include winter soil cover and catch crops. - In mountainous and hilly areas with slope between 10 and 30%: in particular geopedological situations and land fragmentation, provide for alternative systems of protection of the soil against erosion - The work of soil establishment and preparation for planting and sowing must be carried out with the objectives of safeguarding and improving soil fertility, avoiding avoiding erosion and degradation phenomena - Soil work must contribute to maintaining the structure encouraging a high biodiversity of soil microflora and microfauna in the soil and a reduction in compaction, allowing the removal of excess rainwater.

	Low intensity grass-based livestock system	/	
	Use of crops/plant varieties more resilient to climate change	PI	See specifications under the section "Varietal selection and propagation material": Varieties, ecotypes, 'whole plants' and rootstocks must be chosen according to the specific soil and climatic conditions under which they are grown. But it is not clear whether future climate change effects should be taken into consideration.
	Mixed species/diverse sward of permanent grassland for biodiversity purpose	/	
	Improved rice cultivation to decrease methane emissions	+	"In rice cultivation the burning of stubble and straw is allowed in cases of soils where a high level of organic matter can be demonstrated or in cases where minimum tillage is practiced. It is advisable to carry out a characterization analysis of the organic substance to verify the entity of the labile fraction."
	Practices and standards as set under organic farming rules	/	
Husbandry and animal welfare plans including	Feeding plans: suitability of and access to feed and water, feed and water quality analyses optimised feed strategies	/	
	Friendly housing conditions: increased space allowances per animal, improved flooring, free farrowing, provision of enriched environment, shading/sprinklers/ventilation to cope with heat stress, access to roughage, provision of additional enrichment material.	/	
	Practices and standards as set under organic farming rules	/	
	Practices increasing animal robustness, fertility, longevity and adaptability; breeding lower emission animals, promoting genetic diversity and resilience	/	
	Animal health prevention and control plans: overall plan for reducing the risk of infections that require antimicrobials and covering all relevant husbandry practices	/	
	Providing access to pastures and increasing grazing period for grazing animals	/	
	Provide and manage regular access to open air areas	/	

THEMES OF DATA	RESULT INDICATOR	Contribution	Justification
Contribute to climate change mitigation and adaptation, as well as sustainable energy	R.12 Adaptation to climate change: Share of agricultural land under commitments to improve climate adaptation	NA	SQNPI standard does not target climate adaptation, but some required practices are likely to contribute: selection "Varieties, ecotypes, "whole plants" and rootstocks" according to the specific pedoclimatic conditions of cultivation, assessment of the suitability of the area for cultivation in regard to the crop needs, preparation work of the soil for planting and seeding defined according to the risks of erosion and the climatic conditions, irrigation and water use management etc.
	R.13 Reducing emissions in the livestock sector: Share of livestock units under support to reduce GHG emissions and/or ammonia, including manure management	/	SQNPI standard does not target the livestock sector.
	R.14 Carbon storage in soils and biomass: Share of agricultural land under commitments to reducing emissions, maintaining and/or enhancing carbon storage (permanent grassland, agricultural land in peatland, forest, etc.)	NA	The standard requirements include practices that are likely to contribute to increased carbon storage (work for soil structure, reduction of soil compaction, grassing in the inter-row area, restoration and creation of hedges etc.) and reduction of GHG emissions (management of phytosanitary products and fertilizers, reduction of soil tillage).
	R.15 Green energy from agriculture and forestry: Investments in renewable energy production capacity, including bio-based (MW)	NA	Specifications include the promotion of low-carbon heating sources for "Heating of crops": "permitted fuels are exclusively methane, low-sulphur oil and diesel, fuels of plant origin (pine cones, pine nuts, other wood processing waste) and all fuels with a low environmental impact (all heating systems using alternative energies (geothermal, solar energy, power station waste) are permitted)".
	R.16 Enhance energy efficiency: Energy savings in agriculture	NA	The standard requires to monitor energy consumption and prepare a three-year plan for improving the management of energy resources management of energy resources with actions aimed at reduction of consumption and production of energy from renewable sources. Alternatively, it must use supplies of energy produced from renewable sources certified.
	R.17 Afforested land: Area supported for afforestation and creation of woodland, including agroforestry	/	
Foster sustainable development and efficient management of natural resources	R.18 Improving soils: Share of agricultural land under management commitments beneficial for soil management	+	SQNPI standard includes specifications for: - soil improvement and preparation for planting and sowing, that must be carried out with the aim of safeguarding and improving soil fertility and avoiding erosion and degradation.

such as water, soil and air			<p>- Work should be defined according to the type of soil, the crops concerned, the location, erosion risks and and climatic conditions.</p> <p>- The work should contribute to maintaining the structure, encouraging a reduction in the phenomena of compaction, allowing the removal of excess rainwater.</p> <p>Examples of practices: minimum tillage techniques, no-till seeding and scarifying, maximum depth of authorised tillage,...)</p>
	R.19 Improving air quality: Share of agricultural land under commitments to reduce ammonia emission	/	
	R.20 Protecting water quality: Share of agricultural land under management commitments for water quality	NA	The standard requirements regarding sustainable use of pesticides, fertilization management and compliance with legal requirements in the nutrient vulnerable zones are likely to contribute to improved water quality.
	R.21 Sustainable nutrient management: Share of agricultural land under commitments related to improved nutrient management	+	There is a whole section of requirements dedicated to fertilization management.
	R.22 Sustainable water use: Share of irrigated land under commitments to improve water balance	+	There is a whole section of requirements dedicated to the management of irrigation.
	R.23 Environment-/climate-related performance through investment: Share of farmers with support in investments related to care for the environment or climate	/	
	R.24 Environmental/climate performance through knowledge: Share of farmers receiving support for advice/training related to environmental- climate performance	NA	At post-harvest stage, the standard requires to prepare a business plan for carrying out the company's commitments regarding training of all personnel on the subject of safety in the workplace and sustainability of production.
Contribute to the protection of biodiversity, enhance ecosystem services and preserve habitats and landscapes	R.25 Supporting sustainable forest management: Share of forest land under management commitments to support forest protection and management.	/	
	R.26 Protecting Forest ecosystems: Share of forest land under management commitments for supporting landscape, biodiversity and ecosystem services	/	

	R.27 Preserving habitats and species: Share of agricultural land under management commitments supporting biodiversity conservation or restoration	NA	<p>The standard provides specifications for:</p> <ul style="list-style-type: none"> - promoting a high biodiversity of microflora and microfauna of the soil (through the practices of soil preparation) - Implementation of techniques and interventions aimed at strengthening biodiversity (Examples: restoration and construction of hedges, artificial nests, water reservoirs, dry stone walls, polyphite grassing, alternate mowing of rows etc. (possibly based on technical report) - rational use of phytosanitary products and fertilizers
	R.28 Supporting Natura 2000: Area in Natura 2000 sites under commitments for protection, maintenance and restoration	/	
	R.29 Preserving landscape features: Share of agriculture land under commitments for managing landscape features, including hedgerows	NA	<p>The standard provides specifications for:</p> <p>Implementation of techniques and interventions aimed at strengthening biodiversity, as defined by the Region in the specifications (Examples: restoration and construction of hedges, artificial nests, water reservoirs, dry stone walls, polyphite grassing, alternate mowing of rows etc. (possibly based on technical report).</p>
Improve the response of EU agriculture to societal demands on food and health, including safe, nutritious and sustainable food, as well as animal welfare	R.36 Limiting antibiotic use: Share of livestock units concerned by supported actions to limit the use of antibiotics (prevention/reduction)	/	
	R.37 Sustainable pesticide use: Share of agricultural land concerned by supported specific actions which lead to a sustainable use of pesticides in order to reduce risks and impacts of pesticides	+	SQNPI 's first target is to support integrated crop production, through specific technical standards for each crop and binding phytosanitary indications (production specifications) including agronomic practices and limitations on the number and choice of products used during treatments.
	R.38 Improving animal welfare: Share of livestock units covered by supported action to improve animal welfare	/	

Beter Leven

Type of practices	Potential practices that eco-schemes could support	Contribution	Justification
Organic farming practices	Conversion to organic farming	/	
	Maintenance of organic farming	/	
Integrated Pest Management practices	Buffer strips with management practices and without pesticide	/	
	Mechanical weed control	+ (dairy cattle)	The dairy cattle standard requires that only mechanical weed control is used on plots of grassland
	Increased use of resilient, pest-resistant crop varieties and species	/	
	Land lying fallow with species composition for biodiversity purpose	/	
Agro-ecology	Crop rotation with leguminous crops	/	
	Mixed cropping - multi cropping	/	
	Cover crop between tree rows on permanent crops - orchards, vineyards, olive trees - above conditionality	/	
	Winter soil cover and catch crops above conditionality	/	
	Low intensity grass-based livestock system	+ (dairy cattle)	<p>The dairy cattle standard provides following requirements:</p> <ul style="list-style-type: none"> - All lactating and dry cows are granted access to the meadow to graze for at least 8 hours a day, for at least 180 days a year - All young stock must have at 100 days of grazing in their first two years of life. - The density is max. 6.5 lactating cows per hectare of grassland available for active grazing. - The percentage of permanent grassland used for dairy farming is at least 25% of the farmland. - Of the total surface area of plots used for dairy farming (owned or leased), at least 10% (low NL) or 5% (high NL) must consist of extensive herb-rich grassland at the start of participation in BLL in 2021. Within 3 years, the surface area must increase to at least 20% (low NL) or 15% (high NL) extensive herb-rich grassland - From 1-1-2023, at least 20% of the total surface area of plots used for dairy farming (owned or leased), must consist of extensive herb-rich grassland. - Grazing on herb-rich grassland during the rest period from 1 April to 15 June is permitted on a

			fixed part of up to 30% of the area of herb-rich grassland, with a maximum of 1.5 LU/ha, with cattle with a low flight speed (dry cows, beef cattle).
	Use of crops/plant varieties more resilient to climate change	/	
	Mixed species/diverse sward of permanent grassland for biodiversity purpose	+ (dairy cattle)	<p>The dairy cattle standard provides following requirements:</p> <ul style="list-style-type: none"> - Of the total surface area of plots used for dairy farming (owned or leased), at least 10% (low NL) or 5% (high NL) must consist of extensive herb-rich grassland at the start of participation in BLL in 2021. Within 3 years, the surface area must increase to at least 20% (low NL) or 15% (high NL) extensive herb-rich grassland. From 1-1-2023, at least 20% of the total surface area of plots used for dairy farming (owned or leased), must consist of extensive herb-rich grassland. For the definition of herb-rich grassland, the following management packages from the Agricultural Nature Management (ANLb) scheme (Agrarisch Natuurbeheer) with the same conditions for use comply: <ul style="list-style-type: none"> - 1 grassland with rest period; - 3 marshy area; - 5 herb-rich grassland and - 13 grassland with botanical value - Plots of herb-rich grassland must not be ploughed, harrowed or reseeded - Rewetting of herb-rich grassland must take place on farms in low-lying NL between at least 15 February and 15 June
	Improved rice cultivation to decrease methane emissions	/	
	Practices and standards as set under organic farming rules	+ (dairy cattle)	<p>The dairy cattle standard requires that:</p> <ul style="list-style-type: none"> - Only crop protection products that have been approved by SKAL must be used on grassland and on land used for maize - Renting land is only permitted if cultivation takes place according to organic standards. - Any roughage purchased by the farmer must be SKAL certified.
Husbandry and animal welfare plans	Feeding plans: suitability of and access to feed and water, feed and water quality analyses, optimised feed strategies	+	<p>Standards provide for:</p> <ul style="list-style-type: none"> - A farm-specific hygiene plan, that includes "The origin and quality of water", "The origin and storage of feed" etc. - Only GMP+ of BIO certified feed from a GMP+ or BIO certified feed supplier is provided. - Water quality analysis

	Friendly housing conditions: increased space allowances per animal, improved flooring, free farrowing, provision of enriched environment, shading/sprinklers/ventilation to cope with heat stress, access to roughage, provision of additional enrichment material.	+	Increased space allowances in 2-stars and 3-stars standards, improved flooring for calves, additional enrichment material for pig and laying hens, measures to prevent heat stress etc.
	Practices and standards as set under organic farming rules	+(dairy cattle)	Only the dairy cattle standard requires that: - Any roughage purchased by the farmer must be SKAL certified. - The feed concentrate is VLOG, GMP+ MI 105 or SKAL (= organic) certified. - Only crop protection products that have been approved by SKAL must be used on grassland and on land used for maize
	Practices increasing animal robustness, fertility, longevity and adaptability; breeding lower emission animals, promoting genetic diversity and resilience	/	Standards do not allow genetically modified animals.
	Animal health prevention and control plans: overall plan for reducing the risk of infections that require antimicrobials and covering all relevant husbandry practices	+	Standards requirements include antibiotic use registration, Farm health plan and farm treatment plan, presence of a written policy in the farm health plan with regard to reducing the amount of antibiotics used, The policy in the farm health plan regarding the reduction of the amount of used antibiotics must be assessed and revised annually together with the contracted veterinarian, hygiene plan describing the measures for Cleaning and disinfecting pens and enclosures etc.
	Providing access to pastures and increasing grazing period for grazing animals	+	Cattle standards require between 5 and 7 months of grassing (with the exception of bulls over one year old) Dairy cattle standards requires that All lactating and dry cows are granted access to the meadow to graze for at least 8 hours a day, for at least 180 days a year.
	Provide and manage regular access to open air areas	PI	Guarantees on that practice depend on the standard level. 1-star level for pigs and laying hens does not provide access to open air areas, while 2-stars and 3-stars standards do.

THEMES OF DATA	RESULT INDICATOR	Contribution	Justification
Contribute to climate change mitigation and adaptation, as well as sustainable energy	R.12 Adaptation to climate change: Share of agricultural land under commitments to improve climate adaptation	NA	Climate change is not explicitly targeted, but some required practices are likely to favour water infiltration and prevent floodings and mudslides in the pastures (dairy cattle standard), or prevent animal heat stress (all standards).
	R.13 Reducing emissions in the livestock sector: Share of livestock units under support to reduce GHG emissions and/or ammonia, including manure management	/	BL has a limited but growing contribution to climate change mitigation objective. The standard strives to broaden its scope towards a more integrated sustainability label, by including additional criteria on feed sustainability, climate and energy aspects, and manure management. A first step was made in 2019 with the new dairy cattle standard requiring companies to use 100% green energy and demonstrate efforts to achieve climate neutrality by January 1, 2030. Local feed is encouraged and cows are therefore only allowed a maximum of 40% concentrate and 70% of this concentrate must eventually come from Europe. Beter Leven aims to broaden these criteria to pigs, laying hens and broilers standards (100% green energy for animal shelters).
	R.14 Carbon storage in soils and biomass: Share of agricultural land under commitments to reducing emissions, maintaining and/or enhancing carbon storage (permanent grassland, agricultural land in peatland, forest, etc.)	NA	The new dairy cattle standard requires a minimum share of 20% to be maintained in extensive herb-rich grassland in plots used for dairy farming, and the establishment of a farm Nature Management Plan.
	R.15 Green energy from agriculture and forestry: Investments in renewable energy production capacity, including bio-based (MW)	NA	The dairy cattle 3-stars standard sets a maximum amount of electricity purchased from the grid, with higher objectives as of 1-1-2023, and targets electricity neutrality of farms from 2028 ("As of 1-1-2028, the farm must generate all its own electricity (excluding dairy processing and private use)"). The farm must have a contract to purchase 100% green energy -solar or wind turbines- generated in the Netherlands.
	R.16 Enhance energy efficiency: Energy savings in agriculture	NA	The dairy cattle 3-stars standard sets a maximum amount of electricity purchased from the grid, with higher objectives as of 1-1-2023, and targets electricity neutrality of farms from 2028
	R.17 Afforested land: Area supported for afforestation and creation of woodland, including agroforestry	/	
Foster sustainable development and efficient	R.18 Improving soils: Share of agricultural land under management commitments beneficial for soil management	NA	The dairy cattle standard prohibits plots of herb-rich grassland from being ploughed, harrowed or reseeded in the previous year. Grazing on herb-rich grassland during the

management of natural resources such as water, soil and air			rest period from 1 April to 15 June is permitted on a fixed part of up to 30% of the area of herb-rich grassland.
	R.19 Improving air quality: Share of agricultural land under commitments to reduce ammonia emission	NA	The dairy cattle standard prohibits manure fermentation on- farm, manure processing in a digester, and manure disposal to a manure processor, and sets a maximum amount of organic manure application on herb-rich grassland.
	R.20 Protecting water quality: Share of agricultural land under management commitments for water quality	NA	Specifications of the dairy cattle standard on manure and fertilisers managements are likely to contribute to water quality.
	R.21 Sustainable nutrient management: Share of agricultural land under commitments related to improved nutrient management	NA	The dairy cattle standard includes requirements on nutrient and minerals management.
	R.22 Sustainable water use: Share of irrigated land under commitments to improve water balance	/	
	R.23 Environment-/climate-related performance through investment: Share of farmers with support in investments related to care for the environment or climate	/	
	R.24 Environmental/climate performance through knowledge: Share of farmers receiving support for advice/training related to environmental- climate performance	NA	The manager of each farming location participating in Better Life must have attended a human-animal interaction course that has been approved by the Animal Protection Society.
Contribute to the protection of biodiversity, enhance ecosystem services and preserve habitats and landscapes	R.25 Supporting sustainable forest management: Share of forest land under management commitments to support forest protection and management.	/	
	R.26 Protecting Forest ecosystems: Share of forest land under management commitments for supporting landscape, biodiversity and ecosystem services	/	
	R.27 Preserving habitats and species: Share of agricultural land under management commitments supporting biodiversity conservation or restoration	NA	The new dairy cattle standard requires the establishment and following of a nature management, that contains a baseline measurement and advice from an ecological adviser approved by the Dutch Society for the Protection of Birds (VBN) on the natural area to be created. Other requirements include a minimum share in regional landscape elements, maintenance of trenches and ditches, protection of herb-rich grasslands...

	R.28 Supporting Natura 2000: Area in Natura 2000 sites under commitments for protection, maintenance and restoration	/	
	R.29 Preserving landscape features: Share of agriculture land under commitments for managing landscape features, including hedgerows	NA	The new dairy cattle standard requires a minimum share of the farmland area in regional landscape elements. A process follows during which the ecologically desirable percentage of each landscape element is established that is required to conserve and/or restore local biodiversity.
Improve the response of EU agriculture to societal demands on food and health, including safe, nutritious and sustainable food, as well as animal welfare	R.36 Limiting antibiotic use: Share of livestock units concerned by supported actions to limit the use of antibiotics (prevention/reduction)	NA	<p>The standard requires the definition of a Farm treatment plan describing which veterinary medicines/antibiotics are use</p> <ul style="list-style-type: none"> - recording of compliance with a veterinary practitioner's treatment plan - exclusion of antibiotics reserved for human health care - level of antibiotics use must be under the relevant action zone set by the Dutch Veterinary Medicines Institute - presence of a written policy in the farm health plan with regard to reducing the amount of antibiotics used - Guidance and assistance by swine specialist in case of excessive antibiotics use
	R.37 Sustainable pesticide use: Share of agricultural land concerned by supported specific actions which lead to a sustainable use of pesticides in order to reduce risks and impacts of pesticides	NA	<p>Dairy cattle standard requires:</p> <ul style="list-style-type: none"> - Ban on use of glyphosate - Only crop protection products that have been approved by SKAL must be used on grassland and on land used for maize. -The use of crop protection products on herb-rich grassland is not permitted
	R.38 Improving animal welfare: Share of livestock units covered by supported action to improve animal welfare	+	Beter Leven organization monitors the number of certified producers, who all comply with the standards' requirements to improve animal welfare.

Initiative Tierwohl's "Haltungsform labelling scheme"

Type of practices	Potential practices that eco-schemes could support	Contribution	Justification
Organic farming practices	Conversion to organic farming	/	
	Maintenance of organic farming	/	
Integrated Pest Management practices	Buffer strips with management practices and without pesticide	/	
	Mechanical weed control	/	
	Increased use of resilient, pest-resistant crop varieties and species	/	
	Land lying fallow with species composition for biodiversity purpose	/	
Agro-ecology	Crop rotation with leguminous crops	/	
	Mixed cropping - multi cropping	/	
	Cover crop between tree rows on permanent crops - orchards, vineyards, olive trees - above conditionality	/	
	Winter soil cover and catch crops above conditionality	/	
	Low intensity grass-based livestock system	/	Currently, the standard only applies to poultry and pig production systems. A new standard for cattle is to be published in 2022.
	Use of crops/plant varieties more resilient to climate change	/	
	Mixed species/diverse sward of permanent grassland for biodiversity purpose	/	
	Improved rice cultivation to decrease methane emissions	/	
	Practices and standards as set under organic farming rules	/	
Husbandry and animal welfare	Feeding plans: suitability of and access to feed and water, feed and water quality analyses, optimised feed strategies	+	Standard requirements include annual control of drinking water quality, access to food at intervals appropriate to the animals physiological needs, access to an adequate quantity of water of suitable quality, constant access to roughage for pigs.

	Friendly housing conditions: increased space allowances per animal, improved flooring, free farrowing, provision of enriched environment, shading/sprinklers/ventilation to cope with heat stress, access to roughage, provision of additional enrichment material.	+	Standard requirements include increased space allowances per animal, shed climate control, additional enrichment material.
	Practices and standards as set under organic farming rules	/	
	Practices increasing animal robustness, fertility, longevity and adaptability; breeding lower emission animals, promoting genetic diversity and resilience	/	
	Animal health prevention and control plans: overall plan for reducing the risk of infections that require antimicrobials and covering all relevant husbandry practices	+	Standard requirements include participation in antibiotic monitoring, existence of a basic health plan.
	Providing access to pastures and increasing grazing period for grazing animals	/	Currently, the standard only applies to poultry and pig production systems. A new standard for cattle is to be published in 2022.
	Provide and manage regular access to open air areas	/	The standard does not guarantee access to open air areas.

THEMES OF DATA	RESULT INDICATOR	Contribution	Justification
Contribute to climate change mitigation and adaptation, as well as sustainable energy	R.12 Adaptation to climate change: Share of agricultural land under commitments to improve climate adaptation	NA	Climate change adaptation is not explicitly targeted by the scheme, but shed climate check ensures that appropriate regulation is implemented to address climate change effects (eg heat waves).
	R.13 Reducing emissions in the livestock sector: Share of livestock units under support to reduce GHG emissions and/or ammonia, including manure management	/	
	R.14 Carbon storage in soils and biomass: Share of agricultural land under commitments to reducing emissions, maintaining and/or enhancing carbon storage (permanent grassland, agricultural land in peatland, forest, etc.)	/	
	R.15 Green energy from agriculture and forestry: Investments in renewable energy production capacity, including bio-based (MW)	/	

	R.16 Enhance energy efficiency: Energy savings in agriculture	/	
	R.17 Afforested land: Area supported for afforestation and creation of woodland, including agroforestry	/	
	R.18 Improving soils: Share of agricultural land under management commitments beneficial for soil management	/	
	R.19 Improving air quality: Share of agricultural land under commitments to reduce ammonia emission	/	
	R.20 Protecting water quality: Share of agricultural land under management commitments for water quality	/	
Foster sustainable development and efficient management of natural resources such as water, soil and air	R.21 Sustainable nutrient management: Share of agricultural land under commitments related to improved nutrient management	/	
	R.22 Sustainable water use: Share of irrigated land under commitments to improve water balance	/	
	R.23 Environment-/climate-related performance through investment: Share of farmers with support in investments related to care for the environment or climate	+	Farmers engaged in Initiative Tierwohl receive a fixed additional amount of price by the abattoirs, to comply with the standard requirements. Those criteria include specific equipment for improved animal welfare: air cooling devices, alarms...
	R.24 Environmental/climate performance through knowledge: Share of farmers receiving support for advice/training related to environmental- climate performance	+	Certified farmers must provide a proof of annual training on further relevant and specific subject.
Contribute to the protection of biodiversity, enhance ecosystem services and preserve habitats and landscapes	R.25 Supporting sustainable forest management: Share of forest land under management commitments to support forest protection and management.	/	
	R.26 Protecting Forest ecosystems: Share of forest land under management commitments for supporting landscape, biodiversity and ecosystem services	/	
	R.27 Preserving habitats and species: Share of agricultural land under management commitments supporting biodiversity conservation or restoration	/	

	R.28 Supporting Natura 2000: Area in Natura 2000 sites under commitments for protection, maintenance and restoration	/	
	R.29 Preserving landscape features: Share of agriculture land under commitments for managing landscape features, including hedgerows	/	
Improve the response of EU agriculture to societal demands on food and health, including safe, nutritious and sustainable food, as well as animal welfare	R.36 Limiting antibiotic use: Share of livestock units concerned by supported actions to limit the use of antibiotics (prevention/reduction)	+	"For all participating poultry and pig farms, the use or administration of antibiotics is recorded in a private antibiotics database managed by QS (Qualität und Sicherheit GmbH). This monitoring creates a data set that allows livestock owners and veterinarians to identify any need for action and introduce reduction strategies if necessary. The use of antibiotics is only permitted if an animal falls ill and if they are prescribed by a veterinarian."
	R.37 Sustainable pesticide use: Share of agricultural land concerned by supported specific actions which lead to a sustainable use of pesticides in order to reduce risks and impacts of pesticides	/	
	R.38 Improving animal welfare: Share of livestock units covered by supported action to improve animal welfare	+	Initiative Tierwohl has been primarily designed to promote animal welfare at livestock producer agricultural production level, and relies on "scientifically substantiated, measurable and verifiable requirements for livestock production". Criteria cover the stage of fattening (space allowance, shed climate, access to drinking water, minimum amount of exposure to daylight...), and handling of livestock when loading.

EU geographical indications (GIs): PDO/PGI

Type of practices	Potential practices that eco-schemes could support	Contribution	Justification
Organic farming practices	Conversion to organic farming	/	Based on the evaluation on GIs/TSGs, 60% of GIs/TSGs are partly under organic production (based on an electronic survey on a sample of GIs/TSGs). However, GIs don't specifically promote the development of organic.
	Maintenance of organic farming	/	Based on the evaluation on GIs/TSGs, 60% of GIs/TSGs are partly under organic production (based on an electronic survey on a sample of GIs/TSGs). However, GIs don't specifically promote the development of organic.
Integrated Pest Management practices	Buffer strips with management practices and without pesticide	PI	Some measures may be implemented at GI level. No information available.
	Mechanical weed control	PI	Some measures may be implemented at GI level. No information available.
	Increased use of resilient, pest-resistant crop varieties and species	PI	Some measures may be implemented at GI level. No information available.
	Land lying fallow with species composition for biodiversity purpose	PI	Some measures may be implemented at GI level. No information available.
Agro-ecology	Crop rotation with leguminous crops	PI	Some measures may be implemented at GI level. No information available.
	Mixed cropping - multi cropping	PI	Some measures may be implemented at GI level. No information available.
	Cover crop between tree rows on permanent crops - orchards, vineyards, olive trees - above conditionality	PI	Some measures may be implemented at GI level. No information available.
	Winter soil cover and catch crops above conditionality	PI	Some measures may be implemented at GI level. No information available.
	Low intensity grass-based livestock system	PI	Some measures may be implemented at GI level. No information available.
	Use of crops/plant varieties more resilient to climate change	PI	Some measures may be implemented at GI level. No information available.
	Mixed species/diverse sward of permanent grassland for biodiversity purpose	PI	Some measures may be implemented at GI level. No information available.
	Improved rice cultivation to decrease methane emissions	PI	Only a few GIs are registered in the EU in the rice sector: PDO Arroz del Delta del Ebro/Arròs del Delta de l'Ebre and PGI Riz de Camargue. Some measures may be implemented at GI level. No information available.

	Practices and standards as set under organic farming rules	/	Based on the evaluation on GIs/TSGs, 60% of GIs/TSGs are partly under organic production (based on an electronic survey on a sample of GIs/TSGs). However, GIs don't specifically promote the development of organic.
Husbandry and animal welfare plans including	Feeding plans: suitability of and access to feed and water, feed and water quality analyses, optimised feed strategies	PI	Some measures may be implemented at GI level. No information available.
	Friendly housing conditions: increased space allowances per animal, improved flooring, free farrowing, provision of enriched environment, shading/sprinklers/ventilation to cope with heat stress, access to roughage, provision of additional enrichment material.	PI	Some measures may be implemented at GI level. No information available.
	Practices and standards as set under organic farming rules	PI	Some measures may be implemented at GI level. No information available.
	Practices increasing animal robustness, fertility, longevity and adaptability; breeding lower emission animals, promoting genetic diversity and resilience	PI	Some measures may be implemented at GI level. No information available.
	Animal health prevention and control plans: overall plan for reducing the risk of infections that require antimicrobials and covering all relevant husbandry practices	PI	Some measures may be implemented at GI level. No information available.
	Providing access to pastures and increasing grazing period for grazing animals	PI	Some measures may be implemented at GI level. No information available. Several GIs in the cheese sector are located in mountain areas with extensive production systems.
	Provide and manage regular access to open air areas	PI	Some measures may be implemented at GI level. No information available. Several GIs in the cheese sector are located in mountain areas with extensive production systems.

THEMES OF DATA	RESULT INDICATOR	Availability of information	Justification
Contribute to climate change mitigation and	R.12 Adaptation to climate change: Share of agricultural land under commitments to improve climate adaptation	/	

adaptation, as well as sustainable energy	R.13 Reducing emissions in the livestock sector: Share of livestock units under support to reduce GHG emissions and/or ammonia, including manure management	NA	Some measures may be implemented at GI level. No centralised and harmonised data on this topic
	R.14 Carbon storage in soils and biomass: Share of agricultural land under commitments to reducing emissions, maintaining and/or enhancing carbon storage (permanent grassland, agricultural land in peatland, forest, etc.)	/	
	R.15 Green energy from agriculture and forestry: Investments in renewable energy production capacity, including bio-based (MW)	/	
	R.16 Enhance energy efficiency: Energy savings in agriculture	NA	Some measures may be implemented at GI level. No centralised and harmonised data on this topic
	R.17 Afforested land: Area supported for afforestation and creation of woodland, including agroforestry	NA	Some measures may be implemented at GI level. No centralised and harmonised data on this topic
Foster sustainable development and efficient management of natural resources such as water, soil and air	R.18 Improving soils: Share of agricultural land under management commitments beneficial for soil management	NA	Some measures may be implemented at GI level. No centralised and harmonised data on this topic
	R.19 Improving air quality: Share of agricultural land under commitments to reduce ammonia emission	NA	Some measures may be implemented at GI level. No centralised and harmonised data on this topic
	R.20 Protecting water quality: Share of agricultural land under management commitments for water quality	NA	Some measures may be implemented at GI level. No centralised and harmonised data on this topic
	R.21 Sustainable nutrient management: Share of agricultural land under commitments related to improved nutrient management	NA	Some measures may be implemented at GI level. No centralised and harmonised data on this topic
	R.22 Sustainable water use: Share of irrigated land under commitments to improve water balance	NA	Some measures may be implemented at GI level. No centralised and harmonised data on this topic

	R.23 Environment-/climate-related performance through investment: Share of farmers with support in investments related to care for the environment or climate	NA	Some measures may be implemented at GI level. No centralised and harmonised data on this topic
	R.24 Environmental/climate performance through knowledge: Share of farmers receiving support for advice/training related to environmental- climate performance	NA	Some measures may be implemented at GI level. No centralised and harmonised data on this topic
Contribute to the protection of biodiversity, enhance ecosystem services and preserve habitats and landscapes	R.25 Supporting sustainable forest management: Share of forest land under management commitments to support forest protection and management.	/	
	R.26 Protecting Forest ecosystems: Share of forest land under management commitments for supporting landscape, biodiversity and ecosystem services	/	
	R.27 Preserving habitats and species: Share of agricultural land under management commitments supporting biodiversity conservation or restoration	NA	Some measures may be implemented at GI level. No centralised and harmonised data on this topic
	R.28 Supporting Natura 2000: Area in Natura 2000 sites under commitments for protection, maintenance and restoration	NA	Some measures may be implemented at GI level. No centralised and harmonised data on this topic
	R.29 Preserving landscape features: Share of agriculture land under commitments for managing landscape features, including hedgerows	NA	Some measures may be implemented at GI level. No centralised and harmonised data on this topic
Improve the response of EU agriculture to societal demands on food and health, including safe, nutritious and sustainable food, as well as animal welfare	R.36 Limiting antibiotic use: Share of livestock units concerned by supported actions to limit the use of antibiotics (prevention/reduction)	NA	Some measures may be implemented at GI level. No centralised and harmonised data on this topic
	R.37 Sustainable pesticide use: Share of agricultural land concerned by supported specific actions which lead to a sustainable use of pesticides in order to reduce risks and impacts of pesticides	NA	Some measures may be implemented at GI level. No centralised and harmonised data on this topic
	R.38 Improving animal welfare: Share of livestock units covered by supported action to improve animal welfare	NA	Some measures may be implemented at GI level. No centralised and harmonised data on this topic

Naturland

Type of practices	Potential practices that eco-schemes could support	Contribution	Justification
Organic farming practices	Conversion to organic farming	+	Naturland is based on EU organic regulation. Conversely to the EU rules, Naturland certified farms must convert entirely to organic farming
	Maintenance of organic farming	+	Naturland is based on EU organic regulation. Conversely to the EU rules, Naturland certified farms must convert entirely to organic farming
Integrated Pest Management practices	Buffer strips with management practices and without pesticide	+	Streams, rivers and lakes are to be protected by a buffer zone of trees appropriate to local conditions, and suitable measures are to be determined in the management plan (3.2) By creating extensive bands of grassland as buffer zones alongside unstable ecological systems (e.g. rivers and lakes), precautions are taken against potential soil loss and nutrient input (6). There is no detail regarding a minimal buffer strip width.
	Mechanical weed control	+	Naturland is based on EU organic regulation, thus weed control is the only weed management technique authorized.
	Increased use of resilient, pest-resistant crop varieties and species	/	
	Land lying fallow with species composition for biodiversity purpose	/	
Agro-ecology	Crop rotation with leguminous crops	+	Organic crop rotations are based on a significant share of leguminous crop. For this reason, a minimum of 20% of the crops on the arable land has to be legumes (Part B, 1 Plant production)
	Mixed cropping - multi cropping	/	
	Cover crop between tree rows on permanent crops - orchards, vineyards, olive trees - above conditionality	+	Naturland standards recommends to cover tree and vine rows with crops including leguminous
	Winter soil cover and catch crops above conditionality	+	No area shall be entirely free of vegetation or other coverage the whole year round (1.2) Permanent plant coverage is required

	Low intensity grass-based livestock system	+	High intensity milk production is mostly based on corn silage feeding and soyabean meal supplementation. Exclusive year-round silage-feeding is not permitted by Naturland standards
	Use of crops/plant varieties more resilient to climate change	/	
	Mixed species/diverse sward of permanent grassland for biodiversity purpose	PI	Naturland standards require that biological diversity or biodiversity is to be maintained and fostered on farms to the best of the farmer's ability; this includes diversity of ecosystems, diversity of species and genetic diversity. However it does not require specifically mixed species of permanent grassland.
	Improved rice cultivation to decrease methane emissions	/	
	Practices and standards as set under organic farming rules	+	Naturland is based on EU organic regulation. Conversely to the EU rules, Naturland certified farms must convert entirely to organic farming
Husbandry and animal welfare plans including	Feeding plans: suitability of and access to feed and water, feed and water quality analyses, optimised feed strategies	+	Feeding plan
	Friendly housing conditions: increased space allowances per animal, improved flooring, free farrowing, provision of enriched environment, shading/sprinklers/ventilation to cope with heat stress, access to roughage, provision of additional enrichment material.	+	Appendix 5 defines stocking density which are higher than EU organic regulation.
	Practices and standards as set under organic farming rules	+	Naturland is based on EU organic regulation. Conversely to the EU rules, Naturland certified farms must convert entirely to organic farming
	Practices increasing animal robustness, fertility, longevity and adaptability; breeding lower emission animals, promoting genetic diversity and resilience	/	
	Animal health prevention and control plans: overall plan for reducing the risk of infections that require antimicrobials and covering all relevant husbandry practices	+	The health of the animals is ensured primarily by prophylactic measures and prevention plans. Treatments using chemical-synthetic preparations as a matter of routine and as a preventative measure are not allowed. If animals are treated with antibiotics more than three times in twelve months, their products may no longer be marketed with reference to Naturland.

	Providing access to pastures and increasing grazing period for grazing animals	+	During the local growing season, dairy cows and mother cows must be provided green feed whenever weather conditions and the condition of the soil allows (Part B II)
	Provide and manage regular access to open air areas	+	Outdoor access is provided for every type of animal reared in farms under Naturland standard.

THEMES OF DATA	RESULT INDICATOR	Availability	Justification
Contribute to climate change mitigation and adaptation, as well as sustainable energy	R.12 Adaptation to climate change: Share of agricultural land under commitments to improve climate adaptation	/	
	R.13 Reducing emissions in the livestock sector: Share of livestock units under support to reduce GHG emissions and/or ammonia, including manure management	/	
	R.14 Carbon storage in soils and biomass: Share of agricultural land under commitments to reducing emissions, maintaining and/or enhancing carbon storage (permanent grassland, agricultural land in peatland, forest, etc.)	/	
	R.15 Green energy from agriculture and forestry: Investments in renewable energy production capacity, including bio-based (MW)	/	
	R.16 Enhance energy efficiency: Energy savings in agriculture	/	
	R.17 Afforested land: Area supported for afforestation and creation of woodland, including agroforestry	/	
Foster sustainable development and efficient management of natural resources such as water, soil and air	R.18 Improving soils: Share of agricultural land under management commitments beneficial for soil management	+	Organic farming contributes to improve soil management. Thus the share of agricultural land under Naturland standards can feed this indicator.
	R.19 Improving air quality: Share of agricultural land under commitments to reduce ammonia emission	/	
	R.20 Protecting water quality: Share of agricultural land under management commitments for water quality	+	Organic farming contributes to improve water quality in regards which PPPS, nitrates and phosphates contaminations. Thus the share of agricultural land under Naturland standards can feed this indicator.

	R.21 Sustainable nutrient management: Share of agricultural land under commitments related to improved nutrient management	+	Organic farming contributes to improve nutrient management. Thus the share of agricultural land under Naturland standards can feed this indicator.
	R.22 Sustainable water use: Share of irrigated land under commitments to improve water balance	NA	
	R.23 Environment-/climate-related performance through investment: Share of farmers with support in investments related to care for the environment or climate	/	
	R.24 Environmental/climate performance through knowledge: Share of farmers receiving support for advice/training related to environmental- climate performance	/	
Contribute to the protection of biodiversity, enhance ecosystem services and preserve habitats and landscapes	R.25 Supporting sustainable forest management: Share of forest land under management commitments to support forest protection and management.	/	
	R.26 Protecting Forest ecosystems: Share of forest land under management commitments for supporting landscape, biodiversity and ecosystem services	/	
	R.27 Preserving habitats and species: Share of agricultural land under management commitments supporting biodiversity conservation or restoration	+	Organic farming contributes to improve soil management. Thus the share of agricultural land under Naturland standards can feed this indicator.
	R.28 Supporting Natura 2000: Area in Natura 2000 sites under commitments for protection, maintenance and restoration	/	
	R.29 Preserving landscape features: Share of agriculture land under commitments for managing landscape features, including hedgerows	/	
Improve the response of EU agriculture to societal demands on food and health, including safe, nutritious and	R.36 Limiting antibiotic use: Share of livestock units concerned by supported actions to limit the use of antibiotics (prevention/reduction)	+	Organic farming contributes to improve soil management. Thus the share of livestock units produced under organic farming and Naturland standards can feed this indicator.
	R.37 Sustainable pesticide use: Share of agricultural land concerned by supported specific actions which lead to a	+	Organic farming bans the use of synthetic PPPs. Thus, the share of agricultural land under Naturland standards can feed this indicator.

sustainable food, as well as animal welfare	sustainable use of pesticides in order to reduce risks and impacts of pesticides		
	R.38 Improving animal welfare: Share of livestock units covered by supported action to improve animal welfare	+	Organic farming contributes to improve animal welfare with higher and specific measures in comparison with the EU general legislation. Thus the share of livestock units produced under Naturland standards can feed this indicator.

Label Bas-Carbone

Type of practices	Potential practices that eco-schemes could support	Contribution	Justification
Organic farming practices	Conversion to organic farming	/	
	Maintenance of organic farming	/	
Integrated Pest Management practices	Buffer strips with management practices and without pesticide	/	
	Mechanical weed control	/	
	Increased use of resilient, pest-resistant crop varieties and species	/	
	Land lying fallow with species composition for biodiversity purpose	/	
Agro-ecology	Crop rotation with leguminous crops	+	The Carbon Agri method implies Plant cover crops and optimisation of crop rotation and the implantation of legumes in mixture or in pure cultures
	Mixed cropping - multi cropping	+	The Carbon Agri method implies Plant cover crops and optimisation of crop rotation and the implantation of legumes in mixture or in pure cultures
	Cover crop between tree rows on permanent crops - orchards, vineyards, olive trees - above conditionality	/	
	Winter soil cover and catch crops above conditionality	/	
	Low intensity grass-based livestock system	PI	The Carbon Agri method intent to improve animal housing, building ventilation, etc. to optimize production per cow. According to each farm, it can lead to an intensification of the production of milk per cow in some cases.
	Use of crops/plant varieties more resilient to climate change	/	
	Mixed species/diverse sward of permanent grassland for biodiversity purpose	/	
	Improved rice cultivation to decrease methane emissions	/	
	Practices and standards as set under organic farming rules	/	

Husbandry and animal welfare plans including	Feeding plans: suitability of and access to feed and water, feed and water quality analyses, optimised feed strategies		
	Friendly housing conditions: increased space allowances per animal, improved flooring, free farrowing, provision of enriched environment, shading/sprinklers/ventilation to cope with heat stress, access to roughage, provision of additional enrichment material.	+	The Carbon Agri method implies requires an optimization of the nitrogen content of the ration , the optimization the consumption of concentrates (in connection with the valuation of the ration adjusted to the needs of the animals, the quality of the fodder and the type of fodder) and the replacement of soybean meal by rapeseed meal.
	Practices and standards as set under organic farming rules	/	
	Practices increasing animal robustness, fertility, longevity and adaptability; breeding lower emission animals, promoting genetic diversity and resilience	PI	The Carbon Agri method implies requires the improvement genetic performance (production potential, reduction of enteric methane), optimization the numbers of replacement heifers (extend the longevity of cows, sexing, etc.), optimization the age at first calving and the longevity of cows.
	Animal health prevention and control plans: overall plan for reducing the risk of infections that require antimicrobials and covering all relevant husbandry practices	/	
	Providing access to pastures and increasing grazing period for grazing animals	/	
	Provide and manage regular access to open air areas	/	

THEMES OF DATA	RESULT INDICATOR	Availability	Justification
Contribute to climate change mitigation and adaptation, as well as sustainable energy	R.12 Adaptation to climate change: Share of agricultural land under commitments to improve climate adaptation	/	
	R.13 Reducing emissions in the livestock sector: Share of livestock units under support to reduce GHG emissions and/or ammonia, including manure management	+	The certification scheme makes it possible to assess the number of livestock units engaged in a process to reduce GHG emissions.
	R.14 Carbon storage in soils and biomass: Share of agricultural land under commitments to reducing emissions, maintaining and/or enhancing carbon storage (permanent grassland, agricultural land in peatland, forest, etc.)	+	The certification scheme makes it possible to assess share of agricultural land engaged to maintain or enhance the carbon storage.

	R.15 Green energy from agriculture and forestry: Investments in renewable energy production capacity, including bio-based (MW)	/	
	R.16 Enhance energy efficiency: Energy savings in agriculture	+	The certification scheme allows to monitor the energy consumption reduction to assess share of agricultural land engaged to maintain or enhance the carbon storage.
	R.17 Afforested land: Area supported for afforestation and creation of woodland, including agroforestry	NA	The certification scheme propose the implementation of agroforestry and the establishment of hedges but it is not compulsory and the implementation of such measures vary according to each farms.
Foster sustainable development and efficient management of natural resources such as water, soil and air	R.18 Improving soils: Share of agricultural land under management commitments beneficial for soil management	/	
	R.19 Improving air quality: Share of agricultural land under commitments to reduce ammonia emission	/	
	R.20 Protecting water quality: Share of agricultural land under management commitments for water quality	/	
	R.21 Sustainable nutrient management: Share of agricultural land under commitments related to improved nutrient management	/	
	R.22 Sustainable water use: Share of irrigated land under commitments to improve water balance	/	
	R.23 Environment-/climate-related performance through investment: Share of farmers with support in investments related to care for the environment or climate	/	
	R.24 Environmental/climate performance through knowledge: Share of farmers receiving support for advice/training related to environmental- climate performance	/	
Contribute to the protection of biodiversity, enhance ecosystem	R.25 Supporting sustainable forest management: Share of forest land under management commitments to support forest protection and management.	/	

services and preserve habitats and landscapes	R.26 Protecting Forest ecosystems: Share of forest land under management commitments for supporting landscape, biodiversity and ecosystem services	/	
	R.27 Preserving habitats and species: Share of agricultural land under management commitments supporting biodiversity conservation or restoration	/	
	R.28 Supporting Natura 2000: Area in Natura 2000 sites under commitments for protection, maintenance and restoration	/	
	R.29 Preserving landscape features: Share of agriculture land under commitments for managing landscape features, including hedgerows	/	
Improve the response of EU agriculture to societal demands on food and health, including safe, nutritious and sustainable food, as well as animal welfare	R.36 Limiting antibiotic use: Share of livestock units concerned by supported actions to limit the use of antibiotics (prevention/reduction)	/	
	R.37 Sustainable pesticide use: Share of agricultural land concerned by supported specific actions which lead to a sustainable use of pesticides in order to reduce risks and impacts of pesticides	/	
	R.38 Improving animal welfare: Share of livestock units covered by supported action to improve animal welfare	/	

Wineries for Climate Protection (WfCP)

Type of practices	Potential practices that eco-schemes could support	Contribution	Justification
Organic farming practices	Conversion to organic farming	/	No link between the certification and and organic
	Maintenance of organic farming	/	No link between the certification and and organic
Integrated Pest Management practices	Buffer strips with management practices and without pesticide	/	No requirement on this topic
	Mechanical weed control	PI	No requirement on this topic
	Increased use of resilient, pest-resistant crop varieties and species	/	No requirement on this topic
	Land lying fallow with species composition for biodiversity purpose	/	No requirement on this topic
Agro-ecology	Crop rotation with leguminous crops	/	No requirement on this topic
	Mixed cropping - multi cropping	/	No requirement on this topic
	Cover crop between tree rows on permanent crops - orchards, vineyards, olive trees - above conditionality	PI	No requirement on this topic
	Winter soil cover and catch crops above conditionality	/	No requirement on this topic
	Low intensity grass-based livestock system	/	No requirement on this topic
	Use of crops/plant varieties more resilient to climate change	/	No requirement on this topic
	Mixed species/diverse sward of permanent grassland for biodiversity purpose	/	No requirement on this topic
	Improved rice cultivation to decrease methane emissions	/	No requirement on this topic
	Practices and standards as set under organic farming rules	/	No requirement on this topic
Husbandry and animal welfare	Feeding plans: suitability of and access to feed and water, feed and water quality analyses, optimised feed strategies	/	No requirement on this topic
	Friendly housing conditions: increased space allowances per animal, improved flooring, free farrowing, provision of enriched environment,	/	No requirement on this topic

	shading/sprinklers/ventilation to cope with heat stress, access to roughage, provision of additional enrichment material.		
	Practices and standards as set under organic farming rules	/	No requirement on this topic
	Practices increasing animal robustness, fertility, longevity and adaptability; breeding lower emission animals, promoting genetic diversity and resilience	/	No requirement on this topic
	Animal health prevention and control plans: overall plan for reducing the risk of infections that require antimicrobials and covering all relevant husbandry practices	/	No requirement on this topic
	Providing access to pastures and increasing grazing period for grazing animals	/	No requirement on this topic
	Provide and manage regular access to open air areas	/	No requirement on this topic

THEMES OF DATA	RESULT INDICATOR		
Contribute to climate change mitigation and adaptation, as well as sustainable energy	R.12 Adaptation to climate change: Share of agricultural land under commitments to improve climate adaptation	NA	Main focus is reduction of impacts on climate. Possible impact on adaptation to climate
	R.13 Reducing emissions in the livestock sector: Share of livestock units under support to reduce GHG emissions and/or ammonia, including manure management	/	
	R.14 Carbon storage in soils and biomass: Share of agricultural land under commitments to reducing emissions, maintaining and/or enhancing carbon storage (permanent grassland, agricultural land in peatland, forest, etc.)	/	
	R.15 Green energy from agriculture and forestry: Investments in renewable energy production capacity, including bio-based (MW)	NA	
	R.16 Enhance energy efficiency: Energy savings in agriculture	NA	Important requirements on energy reduction. No data centralised and harmonised.

	R.17 Afforested land: Area supported for afforestation and creation of woodland, including agroforestry	/	
Foster sustainable development and efficient management of natural resources such as water, soil and air	R.18 Improving soils: Share of agricultural land under management commitments beneficial for soil management	/	
	R.19 Improving air quality: Share of agricultural land under commitments to reduce ammonia emission	/	
	R.20 Protecting water quality: Share of agricultural land under management commitments for water quality	/	
	R.21 Sustainable nutrient management: Share of agricultural land under commitments related to improved nutrient management	/	
	R.22 Sustainable water use: Share of irrigated land under commitments to improve water balance	NA	Requirements on water management. Not drafted as this result indicator.
	R.23 Environment-/climate-related performance through investment: Share of farmers with support in investments related to care for the environment or climate	NA	Specific requirement on this topic but data not centralised and harmonised
	R.24 Environmental/climate performance through knowledge: Share of farmers receiving support for advice/training related to environmental- climate performance	/	
Contribute to the protection of biodiversity, enhance ecosystem services and preserve habitats and landscapes	R.25 Supporting sustainable forest management: Share of forest land under management commitments to support forest protection and management.	/	
	R.26 Protecting Forest ecosystems: Share of forest land under management commitments for supporting landscape, biodiversity and ecosystem services	/	
	R.27 Preserving habitats and species: Share of agricultural land under management commitments supporting biodiversity conservation or restoration	/	
	R.28 Supporting Natura 2000: Area in Natura 2000 sites under commitments for protection, maintenance and restoration	/	

	R.29 Preserving landscape features: Share of agriculture land under commitments for managing landscape features, including hedgerows	/	
Improve the response of EU agriculture to societal demands on food and health, including safe, nutritious and sustainable food, as well as animal welfare	R.36 Limiting antibiotic use: Share of livestock units concerned by supported actions to limit the use of antibiotics (prevention/reduction)	/	
	R.37 Sustainable pesticide use: Share of agricultural land concerned by supported specific actions which lead to a sustainable use of pesticides in order to reduce risks and impacts of pesticides	/	
	R.38 Improving animal welfare: Share of livestock units covered by supported action to improve animal welfare	/	

Bord Bia Quality Mark - Beef and lamb scheme

Type of practices	Potential practices that eco-schemes could support	Contribution	Justification
Organic farming practices	Conversion to organic farming	/	No link between Bord Bia Quality Mark and organic
	Maintenance of organic farming	/	No link between Bord Bia Quality Mark and organic
Integrated Pest Management practices	Buffer strips with management practices and without pesticide	/	No specific requirement on this topic.
	Mechanical weed control	/	No specific requirement on this topic.
	Increased use of resilient, pest-resistant crop varieties and species	/	No specific requirement on this topic.
	Land lying fallow with species composition for biodiversity purpose	/	No specific requirement on this topic.
Agro-ecology	Crop rotation with leguminous crops	/	No specific requirement on this topic.
	Mixed cropping - multi cropping	/	No specific requirement on this topic.
	Cover crop between tree rows on permanent crops - orchards, vineyards, olive trees - above conditionality	/	No specific requirement on this topic.
	Winter soil cover and catch crops above conditionality	/	No specific requirement on this topic.
	Low intensity grass-based livestock system	/	No specific requirement on this topic.
	Use of crops/plant varieties more resilient to climate change	/	No specific requirement on this topic.
	Mixed species/diverse sward of permanent grassland for biodiversity purpose	/	No specific requirement on this topic.
	Improved rice cultivation to decrease methane emissions	/	No specific requirement on this topic.
	Practices and standards as set under organic farming rules	/	No link between Bord Bia Quality Mark and organic
Husbandry and animal welfare plans	Feeding plans: suitability of and access to feed and water, feed and water quality analyses, optimised feed strategies	+	Specific requirement on this topic.
	Friendly housing conditions: increased space allowances per animal, improved flooring, free farrowing, provision of enriched	PI	Some requirements are related to housing conditions. Space allowances are in line with EU Directive.

	environment, shading/sprinklers/ventilation to cope with heat stress, access to roughage, provision of additional enrichment material.		The scheme indicates, for instance, that housing must be ventilated and with daylight.
	Practices and standards as set under organic farming rules	/	No link between Bord Bia Quality Mark and organic
	Practices increasing animal robustness, fertility, longevity and adaptability; breeding lower emission animals, promoting genetic diversity and resilience	PI	Some requirements may contribute to this objective but this is not specifically indicated.
	Animal health prevention and control plans: overall plan for reducing the risk of infections that require antimicrobials and covering all relevant husbandry practices	PI	Elaboration of and documented Animal Health Plan (AHP) but no specific requirement on antimicrobials.
	Providing access to pastures and increasing grazing period for grazing animals	+	<p>The requirement on feed is as follows: « Cattle and sheep must derive the bulk of their feed throughout their lifetime from grass and grass-based forages and this must be demonstrated through records. »</p> <p>An additional Bord Bia scheme ("Bord Bia Grass Fed Beef Standard"⁴, widely used in addition to Bord Bia quality Mark) requires that "Animals must have been at pasture for a minimum of the national average of 220 days per year during their lifetime"</p>
	Provide and manage regular access to open air areas	+	<p>There is no specific requirement on "open air access" even if the scheme asks for feed based on grass and grass-based forage.</p> <p>An additional Bord Bia scheme ("Bord Bia Grass Fed Beef Standard", widely used in addition to Bord Bia quality Mark) requires that "Animals must have been at pasture for a minimum of the national average of 220 days per year during their lifetime."</p>

⁴ <https://www.bordbia.ie/globalassets/bordbia2020/farmers--growers/grass-fed-standard/grass-fed-beef-standard-pdf.pdf>

THEMES OF DATA	RESULT INDICATOR	Availability of information	Justification
Contribute to climate change mitigation and adaptation, as well as sustainable energy	R.12 Adaptation to climate change: Share of agricultural land under commitments to improve climate adaptation	/	
	R.13 Reducing emissions in the livestock sector: Share of livestock units under support to reduce GHG emissions and/or ammonia, including manure management	/	
	R.14 Carbon storage in soils and biomass: Share of agricultural land under commitments to reducing emissions, maintaining and/or enhancing carbon storage (permanent grassland, agricultural land in peatland, forest, etc.)	/	
	R.15 Green energy from agriculture and forestry: Investments in renewable energy production capacity, including bio-based (MW)	/	
	R.16 Enhance energy efficiency: Energy savings in agriculture	/	
	R.17 Afforested land: Area supported for afforestation and creation of woodland, including agroforestry	/	
Foster sustainable development and efficient management of natural resources such as water, soil and air	R.18 Improving soils: Share of agricultural land under management commitments beneficial for soil management	/	
	R.19 Improving air quality: Share of agricultural land under commitments to reduce ammonia emission	/	
	R.20 Protecting water quality: Share of agricultural land under management commitments for water quality	/	
	R.21 Sustainable nutrient management: Share of agricultural land under commitments related to improved nutrient management	+	There are recommendations on a balanced nutrient plan but this is not taken into account in the scoring for the certification.
	R.22 Sustainable water use: Share of irrigated land under commitments to improve water balance	/	

	R.23 Environment-/climate-related performance through investment: Share of farmers with support in investments related to care for the environment or climate	/	
	R.24 Environmental/climate performance through knowledge: Share of farmers receiving support for advice/training related to environmental- climate performance	/	
Contribute to the protection of biodiversity, enhance ecosystem services and preserve habitats and landscapes	R.25 Supporting sustainable forest management: Share of forest land under management commitments to support forest protection and management.	/	
	R.26 Protecting Forest ecosystems: Share of forest land under management commitments for supporting landscape, biodiversity and ecosystem services	/	
	R.27 Preserving habitats and species: Share of agricultural land under management commitments supporting biodiversity conservation or restoration	/	
	R.28 Supporting Natura 2000: Area in Natura 2000 sites under commitments for protection, maintenance and restoration	/	
	R.29 Preserving landscape features: Share of agriculture land under commitments for managing landscape features, including hedgerows	/	
Improve the response of EU agriculture to societal demands on food and health, including safe, nutritious and sustainable food, as well as animal welfare	R.36 Limiting antibiotic use: Share of livestock units concerned by supported actions to limit the use of antibiotics (prevention/reduction)	/	
	R.37 Sustainable pesticide use: Share of agricultural land concerned by supported specific actions which lead to a sustainable use of pesticides in order to reduce risks and impacts of pesticides	/	
	R.38 Improving animal welfare: Share of livestock units covered by supported action to improve animal welfare	+	Specific requirements on animal welfare for all farms involved.

Certified Sustainable Beef Framework

Type of practices	Potential practices that eco-schemes could support	Contribution	Justification
Organic farming practices	Conversion to organic farming	/	No requirement regarding organic production standards
	Maintenance of organic farming	/	No requirement regarding organic production standards
Integrated Pest Management practices	Buffer strips with management practices and without pesticide	PI	Under the measure "Crop input products are safely and responsibly used, stored and disposed", the level 2 (Innovation) and 3 (Excellence) of the CSBF imposes that production operations must be managed according to a 4R nutrient stewardship plan and/or an integrated pest management plan. The 4R nutrient stewardship plan is a framework to achieve cropping system goals, such as increased production, increased farmer profitability, enhanced environmental protection and improved sustainability. However, the level of impacts of such measures is difficult to assess.
	Mechanical weed control	/	
	Increased use of resilient, pest-resistant crop varieties and species	/	
	Land lying fallow with species composition for biodiversity purpose	/	
Agro-ecology	Crop rotation with leguminous crops	/	
	Mixed cropping - multi cropping	/	
	Cover crop between tree rows on permanent crops - orchards, vineyards, olive trees - above conditionality	/	
	Winter soil cover and catch crops above conditionality	/	
	Low intensity grass-based livestock system	+	The measure "Grasslands, tame pastures and native ecosystems are maintained or enhanced." addresses the obligation to implement a grazing management. At level 3 (Excellence), efforts should be carried to implement a plan including goals, objectives, resource inventory, soil health, monitoring, stocking rate, time/season, duration, and supplemental and residual feed of cattle grazing.
	Use of crops/plant varieties more resilient to climate change	/	

	Mixed species/diverse sward of permanent grassland for biodiversity purpose	/	
	Improved rice cultivation to decrease methane emissions	/	
	Practices and standards as set under organic farming rules	/	No requirement regarding organic production standards
Husbandry and animal welfare plans including	Feeding plans: suitability of and access to feed and water, feed and water quality analyses, optimised feed strategies	+	
	Friendly housing conditions: increased space allowances per animal, improved flooring, free farrowing, provision of enriched environment, shading/sprinklers/ventilation to cope with heat stress, access to roughage, provision of additional enrichment material.	+	<p>Measure "Animal health and welfare is monitored and maintained as per the relevant National Farm Animal Care Council Code of Practice; sick and injured animals are treated appropriately" addresses these topics and goes further in accordance with:</p> <ul style="list-style-type: none"> • Beef Code of Practice, Section 1.1.1: High Temperature and Humidity • Beef Code of Practice, Section 1.1.2: Extreme Cold <p>Additionally, the measure "Feeding areas and pastures allow cattle to express normal behaviours including resting postures" contributes to improve the housing condition for cattle, by allowing all cattle to be able to lay down at the same time, move freely and have access to feed and water.</p>
	Practices and standards as set under organic farming rules	/	No requirement regarding organic production standards
	Practices increasing animal robustness, fertility, longevity and adaptability; breeding lower emission animals, promoting genetic diversity and resilience	-	No specific requirement
	Animal health prevention and control plans: overall plan for reducing the risk of infections that require antimicrobials and covering all relevant husbandry practices	+	The CSBF addresses different operations aiming at improving animal health by prevention and implementation of control plans. The measure "Animal health and welfare is monitored and maintained as per the relevant National Farm Animal Care Council Code of Practice; sick and injured animals are treated appropriately" addresses important efforts to limit risks of diseases or injuries. The goal is to monitor cattle health on an ongoing basis to ensure prompt and appropriate treatment or care. These operations are in accordance with national standards (Beef Code of Practice developed by the National Farm Animal Care Council (NFACC)).
	Providing access to pastures and increasing grazing period for grazing animals	PI	The CSBF standard provides a general requirement concerning access to pastures through its operation "Feeding areas and pastures allow cattle to express normal behaviours including resting postures". The objective is to keep beef cattle in an environment conducive to normal behaviour in feeding areas and pastures. In particular, all cattle should be able to

			lay down at the same time and cattle should move freely and have plenty access to feed and water.
	Provide and manage regular access to open air areas	PI	No specific requirement

THEMES OF DATA	RESULT INDICATOR	Contribution	Justification
Contribute to climate change mitigation and adaptation, as well as sustainable energy	R.12 Adaptation to climate change: Share of agricultural land under commitments to improve climate adaptation	/	The program does not mention climate adaptation measures, directly or indirectly.
	R.13 Reducing emissions in the livestock sector: Share of livestock units under support to reduce GHG emissions and/or ammonia, including manure management	/	There is a very limited impact of the SBPS on GHG emissions. The issues is raised and the efforts are oriented toward carbon storage in soils rather than support to reduce GHG emissions.
	R.14 Carbon storage in soils and biomass: Share of agricultural land under commitments to reducing emissions, maintaining and/or enhancing carbon storage (permanent grassland, agricultural land in peatland, forest, etc.)	NA	The standard addresses carbon sequestration in soils by supporting awareness concerning practices that contribute to carbon sequestration: keeping grasslands healthy, continuing to invest in production and feed efficiency. Carbon storage in soil is explicitly mentioned in the specifications, under the measure "Practices that support carbon sequestration and minimize emissions are understood and/or employed".
	R.15 Green energy from agriculture and forestry: Investments in renewable energy production capacity, including bio-based (MW)	/	The standard does not mention the use of green and renewable energy.
	R.16 Enhance energy efficiency: Energy savings in agriculture	NA	There is a contribution of the standard to energy efficiency and energy saving in the process of beef production. The standard specifies with its operation "Energy resources are responsibly used" set out in the label requirements aims at taking in account efficient sources of energy, and energy conservation practices like motion detector lighting or properly inflating tires on tractors and farm equipment to boost fuel efficiency. However, the impacts on energy savings may be limited.
	R.17 Afforested land: Area supported for afforestation and creation of woodland, including agroforestry	/	

Foster sustainable development and efficient management of natural resources such as water, soil and air	R.18 Improving soils: Share of agricultural land under management commitments beneficial for soil management	NA	A whole measure is dedicated to soil management, under the measure "Soil health is maintained or enhanced". Grazing and nutrient plans have the obligation to be implemented.
	R.19 Improving air quality: Share of agricultural land under commitments to reduce ammonia emission	NA	The impact of the CSBF is limited on air quality but the issue is explicitly addressed by the specification under the measure "Air quality for people and animals is responsibly managed". The measure aims at managing odour and dust. Minimal requirements are: <ul style="list-style-type: none"> Indoor air quality and ventilation in barns shall be maintained Awareness of odour and dust issues and implementation of practices to reduce when staff or neighbours raise complaints.
	R.20 Protecting water quality: Share of agricultural land under management commitments for water quality	NA	A dedicated measure is focusing on water quality under the measure "Riparian areas, wetlands, surface and ground water sources and nutrient runoff are responsibly managed to help maintain or enhance watershed health". Main objective is to maintain or enhance Watershed health and minimize degradation of water quality. The minimum requirements are: <ul style="list-style-type: none"> Riparian areas and wetlands shall be monitored and managed Potential sources of contamination to water bodies shall be identified and mitigated
	R.21 Sustainable nutrient management: Share of agricultural land under commitments related to improved nutrient management	NA	The standard includes requirements on nutrient management with several measures addressing the obligation to implement a nutrient management plan aiming at reducing impacts on water quality and improve soil health considerations. The level of commitment is not important.
	R.22 Sustainable water use: Share of irrigated land under commitments to improve water balance	/	
	R.23 Environment-/climate-related performance through investment: Share of farmers with support in investments related to care for the environment or climate	/	
	R.24 Environmental/climate performance through knowledge: Share of farmers receiving support for advice/training related to environmental- climate performance	/	
Contribute to the protection of biodiversity, enhance ecosystem	R.25 Supporting sustainable forest management: Share of forest land under management commitments to support forest protection and management.	/	

services and preserve habitats and landscapes	R.26 Protecting Forest ecosystems: Share of forest land under management commitments for supporting landscape, biodiversity and ecosystem services	/	
	R.27 Preserving habitats and species: Share of agricultural land under management commitments supporting biodiversity conservation or restoration	NA	The CSBF addresses measures regarding the preservation of natural habitats with its operation "Habitat for wildlife is maintained or enhanced, and wildlife conflict prevention is managed". The minimum requirement imposes that wildlife that is present on the area shall be known, monitored and management practices to help maintain wildlife and address predators shall be adopted. The level 2 (Achievement) and 3 (Excellence) go further, with the obligation to implement an inventory of wildlife, improve habitats and implement wildlife conflict negation efforts.
	R.28 Supporting Natura 2000: Area in Natura 2000 sites under commitments for protection, maintenance and restoration	NA	There is a minor contribution of the CSBF standard to wildlife management, with its measure "Habitat for wildlife is maintained or enhanced, and wildlife conflict prevention is managed".
	R.29 Preserving landscape features: Share of agriculture land under commitments for managing landscape features, including hedgerows	/	
Improve the response of EU agriculture to societal demands on food and health, including safe, nutritious and sustainable food, as well as animal welfare	R.36 Limiting antibiotic use: Share of livestock units concerned by supported actions to limit the use of antibiotics (prevention/reduction)	/	CSBF standard does not explicitly addressed the topic of limiting antibiotics. However, the measure "Animal health products are responsibly used and disposed." includes the requirement to use animal health products according to label directions and/or vet prescription. In some extent the CSBF may indirectly limit the over-use of antibiotics.
	R.37 Sustainable pesticide use: Share of agricultural land concerned by supported specific actions which lead to a sustainable use of pesticides in order to reduce risks and impacts of pesticides	NA	A whole measure is dedicated to responsible use, storage, and disposal of crop inputs, including pesticides. In particular, the standard imposes under level 2 (Achievement) and 3 (Excellence) of the measure "Crop input products are safely and responsibly used, stored and disposed" to implement a 4R nutrient stewardship plan and/or an integrated pest management plan.
	R.38 Improving animal welfare: Share of livestock units covered by supported action to improve animal welfare	NA	A whole section is dedicated to animal welfare, in accordance with the Codes of Practices for the Care and Handling set by the National Farm Animal Care Council (NFACC).

Equalitas

Type of practices	Potential practices that eco-schemes could support	Contribution	Justification
Organic farming practices	Conversion to organic farming	/	No link between the certification and and organic
	Maintenance of organic farming	/	No link between the certification and and organic
Integrated Pest Management practices	Buffer strips with management practices and without pesticide	+	"buffer strips at least 3 meters wide, vegetated, not fertilised, not treated with crop protection products. »
	Mechanical weed control	+	Chemical weeding operations are not allowed between the rows.
	Increased use of resilient, pest-resistant crop varieties and species	-	No requirement on this topic
	Land lying fallow with species composition for biodiversity purpose	/	No requirement of fallow, focus on vine.
Agro-ecology	Crop rotation with leguminous crops	/	/
	Mixed cropping - multi cropping	/	/
	Cover crop between tree rows on permanent crops - orchards, vineyards, olive trees - above conditionality	PI	More than 90% grassing between the rows (recommended but not compulsory). Chemical weedings operations are not allowed between the vine rows.
	Winter soil cover and catch crops above conditionality	/	/
	Low intensity grass-based livestock system	/	/
	Use of crops/plant varieties more resilient to climate change	-	/
	Mixed species/diverse sward of permanent grassland for biodiversity purpose	/	/
	Improved rice cultivation to decrease methane emissions	/	/
	Practices and standards as set under organic farming rules	/	No link between the certification and and organic
Husbandry and	Feeding plans: suitability of and access to feed and water, feed and water quality analyses, optimised feed strategies	/	/

	Friendly housing conditions: increased space allowances per animal, improved flooring, free farrowing, provision of enriched environment, shading/sprinklers/ventilation to cope with heat stress, access to roughage, provision of additional enrichment material.	/	/
	Practices and standards as set under organic farming rules	/	/
	Practices increasing animal robustness, fertility, longevity and adaptability; breeding lower emission animals, promoting genetic diversity and resilience	/	/
	Animal health prevention and control plans: overall plan for reducing the risk of infections that require antimicrobials and covering all relevant husbandry practices	/	/
	Providing access to pastures and increasing grazing period for grazing animals	/	/
	Provide and manage regular access to open air areas	/	/

THEMES OF DATA	RESULT INDICATOR		
Contribute to climate change mitigation and adaptation, as well as sustainable energy	R.12 Adaptation to climate change: Share of agricultural land under commitments to improve climate adaptation	/	
	R.13 Reducing emissions in the livestock sector: Share of livestock units under support to reduce GHG emissions and/or ammonia, including manure management	/	
	R.14 Carbon storage in soils and biomass: Share of agricultural land under commitments to reducing emissions, maintaining and/or enhancing carbon storage (permanent grassland, agricultural land in peatland, forest, etc.)	/	
	R.15 Green energy from agriculture and forestry: Investments in renewable energy production capacity, including bio-based (MW)	/	

	R.16 Enhance energy efficiency: Energy savings in agriculture	NA	Some requirements on energy but no compulsory at all stages.
	R.17 Afforested land: Area supported for afforestation and creation of woodland, including agroforestry	/	
Foster sustainable development and efficient management of natural resources such as water, soil and air	R.18 Improving soils: Share of agricultural land under management commitments beneficial for soil management	NA	Requirement on this topic but data not harmonised and centralised
	R.19 Improving air quality: Share of agricultural land under commitments to reduce ammonia emission	NA	Requirement on this topic but data not harmonised and centralised
	R.20 Protecting water quality: Share of agricultural land under management commitments for water quality	NA	Requirement on this topic but data not harmonised and centralised
	R.21 Sustainable nutrient management: Share of agricultural land under commitments related to improved nutrient management	NA	Requirement on this topic but data not harmonised and centralised
	R.22 Sustainable water use: Share of irrigated land under commitments to improve water balance	NA	Requirement on this topic but data not harmonised and centralised
	R.23 Environment-/climate-related performance through investment: Share of farmers with support in investments related to care for the environment or climate	/	
	R.24 Environmental/climate performance through knowledge: Share of farmers receiving support for advice/training related to environmental- climate performance	NA	Requirement on training but not detailed on environment / climate change and data not harmonised and centralised
Contribute to the protection of biodiversity, enhance ecosystem services and preserve habitats and landscapes	R.25 Supporting sustainable forest management: Share of forest land under management commitments to support forest protection and management.	/	
	R.26 Protecting Forest ecosystems: Share of forest land under management commitments for supporting landscape, biodiversity and ecosystem services	/	
	R.27 Preserving habitats and species: Share of agricultural land under management commitments supporting biodiversity conservation or restoration	NA	

	R.28 Supporting Natura 2000: Area in Natura 2000 sites under commitments for protection, maintenance and restoration	/	No requirement related to Natura 2000
	R.29 Preserving landscape features: Share of agriculture land under commitments for managing landscape features, including hedgerows	NA	For vineyard over 15 ha, semi-natural areas shall be managed on at least 5% of the area.
Improve the response of EU agriculture to societal demands on food and health, including safe, nutritious and sustainable food, as well as animal welfare	R.36 Limiting antibiotic use: Share of livestock units concerned by supported actions to limit the use of antibiotics (prevention/reduction)	/	
	R.37 Sustainable pesticide use: Share of agricultural land concerned by supported specific actions which lead to a sustainable use of pesticides in order to reduce risks and impacts of pesticides	NA	Some requirements integrated production, limitation of use of products) but no data available.
	R.38 Improving animal welfare: Share of livestock units covered by supported action to improve animal welfare	/	

Global G.A.P Integrated Farm Assurance (IFA)

Type of practices	Potential practices that eco-schemes could support	Contribution	Justification
Organic farming practices	Conversion to organic farming	/	
	Maintenance of organic farming	/	
Integrated Pest Management practices	Buffer strips with management practices and without pesticide	- (option)	Planting vegetative buffers at the edges or water streams of cropped fields is recommended by IFA guidelines to prevent pesticide drift and indirect water source contamination.
	Mechanical weed control	- (option)	Mechanical weed control is recommended to be considered before resorting to chemical methods during cropping.
	Increased use of resilient, pest-resistant crop varieties and species	- (option)	IFA standard states that "where relevant, choice of optimal, resistant varieties should be considered to reduce problems with pests, nematodes and diseases".
	Land lying fallow with species composition for biodiversity purpose	- (option)	IFA standard recommends to give consideration to the conversion of unproductive sites (e.g. low-lying wet areas, woodlands, headland strips, or areas of impoverished soil etc.) to ecological focus areas for the encouragement of natural flora and fauna. There is also a minor requirement for producers to have an action plan aiming to enhance habitats or maintaining biodiversity on farm.
Agro-ecology	Crop rotation with leguminous crops	/	
	Mixed cropping - multi cropping	- (option)	Mixed crops are recommended to prevent or reduce problems with pests, diseases and weeds, and to increase population of natural enemies and pollinators in and around the crop.
	Cover crop between tree rows on permanent crops - orchards, vineyards, olive trees - above conditionality	PI	The standard includes a minor requirement to apply techniques to improve or maintain soil structure and avoid soil compaction, including « permanent row marking » and « avoiding in-row plowing ». Use of cover crops is recommended to prevent or reduce problems with pests, diseases and weeds, and "inside the field" to increase population of natural enemies and pollinators in and around the crop.
	Winter soil cover and catch crops above conditionality	-	Use of cover crops is suggested among potential measures to prevent agricultural runoff and promote biological control.

	Low intensity grass-based livestock system	/	
	Use of crops/plant varieties more resilient to climate change	- (option)	Choosing crop varieties that use water optimally is recommended to improve water management on the farm.
	Mixed species/diverse sward of permanent grassland for biodiversity purpose	PI	IFA standard recommends to give consideration to the conversion of unproductive sites (e.g. low-lying wet areas, woodlands, headland strips, or areas of impoverished soil etc.) to ecological focus areas for the encouragement of natural flora and fauna. There is a "minor must" for producers to have an action plan aiming to enhance habitats or maintaining biodiversity on farm.
	Improved rice cultivation to decrease methane emissions	/	
	Practices and standards as set under organic farming rules	/	
Husbandry and animal welfare plans including	Feeding plans: suitability of and access to feed and water, feed and water quality analyses, optimised feed strategies	/	
	Friendly housing conditions: increased space allowances per animal, improved flooring, free farrowing, provision of enriched environment, shading/sprinklers/ventilation to cope with heat stress, access to roughage, provision of additional enrichment material.	/	
	Practices and standards as set under organic farming rules	/	
	Practices increasing animal robustness, fertility, longevity and adaptability; breeding lower emission animals, promoting genetic diversity and resilience	/	
	Animal health prevention and control plans: overall plan for reducing the risk of infections that require antimicrobials and covering all relevant husbandry practices	/	
	Providing access to pastures and increasing grazing period for grazing animals	/	
	Provide and manage regular access to open air areas	/	

THEMES OF DATA	RESULT INDICATOR	Availability	Justification
Contribute to climate change mitigation and adaptation, as well as sustainable energy	R.12 Adaptation to climate change: Share of agricultural land under commitments to improve climate adaptation	/	NB: V6 of IFA standard, to be published in april 2022, should include "New and updated sustainability criteria on topics such as plastics, waste, carbon neutrality, deforestation, and animal welfare" and monitoring
	R.13 Reducing emissions in the livestock sector: Share of livestock units under support to reduce GHG emissions and/or ammonia, including manure management	/	IFA Control points and Compliance criteria of Livestock base have not been analysed.
	R.14 Carbon storage in soils and biomass: Share of agricultural land under commitments to reducing emissions, maintaining and/or enhancing carbon storage (permanent grassland, agricultural land in peatland, forest, etc.)	NA	Emissions reduction or carbon storage are not targeted by the standard, but there may be information on recommended practices that indirectly contribute to these issues: "there should be a plan to convert unproductive sites (e.g. low-lying wet areas, woodlands, headland strips, or areas of impoverished soil, etc.) to ecological focus areas. Improvement of soil fertility is also promoted through various requirements.
	R.15 Green energy from agriculture and forestry: Investments in renewable energy production capacity, including bio-based (MW)	NA	The standard encourages the use of renewable energies, but this is not a strict requirement to obtain the certification. There may be some existing information, but it is not available. NB: V6 of IFA standard, to be published in april 2022, should include "New and updated sustainability criteria on topics such as plastics, waste, carbon neutrality, deforestation, and animal welfare"
	R.16 Enhance energy efficiency: Energy savings in agriculture	NA	There is a minor requirement for energy use records and selection of farming equipment for optimum energy consumption. The standard recommends to have a written plan identifying opportunities to improve energy efficiency. There may be some existing information, but it is not available.
	R.17 Afforested land: Area supported for afforestation and creation of woodland, including agroforestry	/	There is only a recommendation for a plan to convert unproductive sites (e.g. woodlands) to ecological focus areas.
Foster sustainable development and efficient management of natural resources such as water, soil and air	R.18 Improving soils: Share of agricultural land under management commitments beneficial for soil management	NA	There is a whole section of the standard dedicated to soil management practices, with most of the compliance criteria being "minor must" or "recommendations". However, the share of agricultural area specifically targeting soil management could not be determined.
	R.19 Improving air quality: Share of agricultural land under commitments to reduce ammonia emission	/	

	R.20 Protecting water quality: Share of agricultural land under management commitments for water quality	NA	There are several control points on the presence of measures to reduce the risk of pollution of water sources (fertilizers storage, disposal of empty PPP containers to avoid contamination of watercourses, valid permits/licenses available for any water discharge into river courses or other environmentally sensitive areas,...). However, the share of agricultural area specifically targeting water management could not be determined
	R.21 Sustainable nutrient management: Share of agricultural land under commitments related to improved nutrient management	NA	The standard includes control points on nutrient management (take into account the nutrient contribution of organic fertilizers application, competent and qualified persons in charge of recommendations for the application of fertilizers, knowledge of the nutrient content of inorganic fertilizers...). However, the share of agricultural area specifically targeting nutrient management could not be determined.
	R.22 Sustainable water use: Share of irrigated land under commitments to improve water balance	NA	There is a whole section of the standard dedicated to water management, including a requirement for a risk-assessment that evaluates environmental issues for water management on the farm, and a water management plan identifying measures to ensure efficient use and application. However, the share of agricultural area specifically targeting water management could not be determined.
	R.23 Environment-/climate-related performance through investment: Share of farmers with support in investments related to care for the environment or climate	/	
	R.24 Environmental/climate performance through knowledge: Share of farmers receiving support for advice/training related to environmental-climate performance	NA	There is a control point ("minor must") for a risk assessment on physical and chemical assessment of water used on pre-harvest activities. For guidance, producers must seek advice from a qualified agronomist. Another control point ("minor must") asks for assistance with the implementation of IPM systems, to be obtained through training or advice. Global Gap certification strictly requires for persons selecting the PPPs to demonstrate technical knowledge. But whether farmers receive support or not is unknown.
Contribute to the protection of biodiversity, enhance ecosystem services and preserve habitats and landscapes	R.25 Supporting sustainable forest management: Share of forest land under management commitments to support forest protection and management.	/	There is only a recommendation for a plan to convert unproductive sites (e.g. woodlands) to ecological focus areas.
	R.26 Protecting Forest ecosystems: Share of forest land under management commitments for	/	There is a "minor must" compliance criteria for a wildlife management and conservation plan for the farm business, that "should pay special attention to areas

	supporting landscape, biodiversity and ecosystem services		of environmental interest being protected and make reference to legal requirements where applicable". But there is no specific mention of forest ecosystems.
	R.27 Preserving habitats and species: Share of agricultural land under management commitments supporting biodiversity conservation or restoration	NA	There is a minor must compliance criteria for a wildlife management and conservation plan, that aims to enhance biodiversity on the farm and acknowledges the impact of farming activities on the environment. However, the share of agricultural area specifically targeting biodiversity could not be determined.
	R.28 Supporting Natura 2000: Area in Natura 2000 sites under commitments for protection, maintenance and restoration	NA	There is a "minor must" compliance criteria for a wildlife management and conservation plan for the farm business, that "should pay special attention to areas of environmental interest being protected and make reference to legal requirements where applicable". However, the share of agricultural area under Natura 2000 commitments could not be determined.
	R.29 Preserving landscape features: Share of agriculture land under commitments for managing landscape features, including hedgerows	NA	There is a recommendation for the conversion of unproductive sites (e.g. low lying wet areas, woodlands, etc.) and identified areas that give priority to ecology into conservation areas. However, the share of agricultural area specifically targeting landscape features could not be determined.
Improve the response of EU agriculture to societal demands on food and health, including safe, nutritious and sustainable food, as well as animal welfare	R.36 Limiting antibiotic use: Share of livestock units concerned by supported actions to limit the use of antibiotics (prevention/reduction)	/	IFA Control points and Compliance criteria of Livestock base have not been analysed.
	R.37 Sustainable pesticide use: Share of agricultural land concerned by supported specific actions which lead to a sustainable use of pesticides in order to reduce risks and impacts of pesticides	NA	There is a whole section of the standard dedicated to Integrated pest Management, including requirements and recommendations for the correct use, handling and storage of plant protection products, promotion of non-chemical methods etc. However, the share of agricultural area specifically targeting use of pesticides could not be determined
	R.38 Improving animal welfare: Share of livestock units covered by supported action to improve animal welfare	/	IFA Control points and Compliance criteria of Livestock base have not been analysed.

This study presents the concepts and methods of farm certification schemes and provides information on the main existing schemes in the EU and in third countries. It analyses how these schemes can help the EU reach its sustainability objectives in the farming sector and be instrumental in the implementation and monitoring of the related CAP instruments during the upcoming programming period.
