



Pesticide legislation in the EU

Towards sustainable use of plant protection products

SUMMARY *Plant protection products, commonly referred to as pesticides, are used to prevent damage to agricultural crops. However, they are potentially toxic and must therefore be stored, used and disposed of in a safe manner.*

The EU has adopted a strategy for the sustainable use of pesticides. EU legislation requires pesticides to be effective and have no harmful effects. The European Commission sets maximum levels for pesticide residues in food and feed. Pesticide residues in water are subject to the Water Framework Directive.

The European Parliament introduced amendments to the pesticides legislation to improve the protection of aquatic organisms and of vulnerable population groups. The EP recently adopted a report on honeybee health, which calls for improved pesticide risk assessment and notification procedures.

NGOs have criticised the pesticide legislation for containing too many exceptions, while the pesticides industry argues that such exceptions are indispensable. Farmers are concerned about the economic impact and administrative burden of new pesticide rules.

A growing trade in counterfeit pesticides poses threats to human health and the environment.

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Glossary

Integrated pest management: consideration of all available plant protection methods and appropriate measures to discourage the development of harmful organisms and minimise the use of pesticides.

Pesticide: chemical compounds used to kill pests, including insects, rodents, fungi and unwanted plants. In this briefing, the terms “pesticide” and “plant protection product” are used interchangeably.

Plant protection products: preparations used in agriculture and horticulture to protect plants or plant products against harmful organisms (insecticides and fungicides), destroy harmful plants or prevent their growth (herbicides), influence the life processes of plants, or preserve plant products.

Precautionary principle: if an action or policy has a suspected risk of causing harm to the public or to the environment, but there is no scientific consensus, those taking the action must prove that it is not harmful.

Context

In EU terminology, pesticides are divided into plant protection products (agricultural and horticultural uses) and biocides (other uses). This briefing focuses on plant protection products, but it may be noted that the European Parliament is active on



Pesticide spraying in a peach orchard.

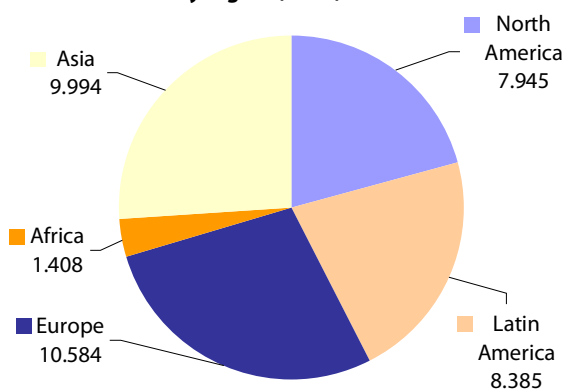
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both fronts, having recently voted at second reading on a new [biocides regulation](#).

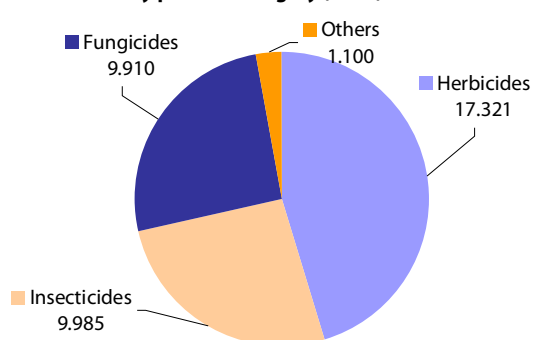
Pests and diseases can do great damage to agricultural and horticultural crops. Plant protection products are used to protect crops before and after the harvest by killing or inhibiting pests. They consist of one or more active substances combined with other materials and distributed as granules, powders or liquids.

There are some 25 000 agricultural pesticides with about 700 active substances on the world market. The value of the global market for pesticides in 2010 was around US\$ 38 billion. In Europe, pesticides containing 281 056 tonnes of active ingredients were sold in 2010, for a market value of € 8 billion. The European crop protection industry employs about 26 000 people.

Pesticide sales by region (2010) in US\$ million



Pesticide sales by product category (2010) in US\$ million



Source: Phillips McDougall

The use of pesticides and fertilisers has increased agricultural productivity by a factor of three over the past 50 years. While pesticides help raise agricultural yields and

ensure the security of the food supply, they may be damaging to humans, animals and the environment. Since the issue was first brought to the public awareness 50 years ago in Rachel Carson's book "*Silent Spring*", measures have been taken to use pesticides more safely, to reduce their use and develop less damaging pesticides.

Current approaches to reducing the use of pesticides include integrated pest management, organic farming and pest-resistant crops derived from genetic engineering. However, crops with genetic modification for herbicide resistance may cause farmers to make increased use of weed-killers.

According to a recent [Eurobarometer survey on food-related risks](#), pesticide residues are the most important food-related concern for EU citizens. Seventy-two percent of EU citizens are worried about pesticide residues in fruit, vegetables or cereals.

Various international organisations address issues of pesticide use:

- The [Pesticide Programme of the OECD](#) helps governments cooperate and share efforts in assessing and reducing the risks of agricultural pesticides.
- The Food and Agriculture Organisation (FAO) has issued an [International Code of Conduct on the Distribution and Use of Pesticides](#) and promotes the exchange of information and best practices.
- The World Health Organisation (WHO) deals with pesticides in its [International Programme on Chemical Safety](#) and administers a [Pesticides Evaluation Scheme](#).
- A [Joint FAO/WHO Meeting on Pesticide Residues](#) brings together international experts.

EU legislation and international obligations

EU legislation on pesticides was thoroughly reformed through the “pesticides package” in 2009, which established new procedures for the authorisation of pesticides, a framework for their sustainable use, a new approach to statistics and new rules on machinery for pesticide application. The new legislation is based on the precautionary principle, which requires proof of safety before authorisation of a product. Other pesticide-related EU legislation concerns labelling, organic farming, and pesticide residues in food, feed and water.

Placing of pesticides on the market

[Regulation 1107/2009](#) deals with the authorisation for placing pesticides on the market. Active substances are authorised by the European Union, and products at the level of the Member States. The regulation requires pesticides not to have unacceptable effects on plants, or damaging effects on human or animal health, groundwater or the environment in general.

Active substances are approved by the European Commission through implementing acts, following a risk assessment by the European Food Safety Authority (EFSA).

Plant protection products, containing approved active substances, are authorised by Member States. Applicants submit a dossier in the Member State in which they intend to place the product on the market for the first time. The authorisation given by a Member State is valid for ten years and may be renewed.

The regulation divides the EU into three biogeographical zones: North, Centre and South. Member States must authorise products authorised by other Member States of the same zone (with some exceptions). To place a pesticide on the market in another zone, a new authorisation must be requested.

The European Commission completed its review of about a thousand existing active substances in March 2009. A quarter of the active substances were authorised, two-thirds were eliminated because the dossiers were not submitted, withdrawn or incomplete, and 7% of the substances failed the review. The [EU pesticides database](#) contains 411 approved active substances, 780 non-approved substances, and 75 substances for which approval is pending (as of March 2012).

Sustainable use of pesticides

[Directive 2009/128/EC](#) establishes a framework for the sustainable use of pesticides. It aims to reduce the risks and impacts of pesticide use on human health and the environment and promote the use of integrated pest management and of alternative approaches, such as non-chemical ones.

Member States must develop national action plans and communicate them to the European Commission by 14 December 2012. Action plans are to include quantitative objectives, measures and timetables, as well as indicators to monitor the use of dangerous plant protection products and targets for the reduction of their use.

The directive further requires training and certification of professional users and sales personnel. It requires Member States to prohibit aerial spraying of pesticides, except in special cases.

The directive also obliges Member States to protect surface water and drinking water from pesticide contamination. In addition, pesticide use is to be reduced in areas used by the general public and in nature conservation areas.

The reduction of pesticide use through crop rotation or crop diversification also plays a role in the discussions about “greening” the Common Agricultural Policy.

Pesticide limits in food and feed products

In order to protect the health of humans and animals, food or feed sold in the EU must not exceed maximum residue levels listed in [Regulation \(EC\) 396/2005](#). Maximum residue levels are established based on an assessment by EFSA.

Other pesticide-related EU legislation

- [Directive 2009/127/EC](#) introduces requirements for the inspection and maintenance of machinery for pesticide application. Member States have been obliged to apply it since December 2011.
- [Regulation \(EC\) No 1272/2008](#) concerns the classification, packaging and labelling of dangerous preparations, including pesticides.
- [Commission Regulation \(EC\) No 889/2008](#) allows the use of pesticides in organic agriculture only when other methods of pest and disease control are ineffective. Organic producers may use only the plant protection products listed in Annex II of the regulation, and must document the need to use the product.
- [Directive 2000/60/EC](#) (Water Framework Directive) aims at a coherent and integrated approach to water management across the EU. It sets limits to the levels of particular chemicals in the aquatic environment and includes provisions for monitoring of pesticides.
- [Directive 2008/105/EC](#) specifies limits on concentrations of some pesticides and other substances in surface waters. In January 2012, the European Commission made a [new proposal \(COM\(2011\)876\)](#) to amend these two directives. The proposal includes a revised list of priority substances (including some pesticides), and provisions to improve the functioning of the legislation.
- [Council Directive 98/83/EC](#) (Drinking Water Directive) fixes the maximum pesticide concentration in drinking water.

Statistics

In order to ensure comprehensive statistical data about the sale and use of pesticides in

the EU, [Regulation \(EC\) No 1185/2009](#) contains rules for collecting information in each Member State. Eurostat has accordingly revised its approach for the collection of pesticide statistics. A new set of indicators on the risks for health and the environment will replace the current statistics, which consist mostly of pesticide sales data.

International obligations

The EU and Member States are parties to international agreements related to pesticides.

The [International Plant Protection Convention](#) is an international agreement aiming to protect natural and cultivated plants from pests. It came into force in 1952 and has been signed by the EU and all Member States.

The [Rotterdam Convention](#) covers international trade in hazardous chemicals with the aim of protecting human health and the environment. Pesticides represent one major category of traded hazardous chemicals. The EU and 26 Member States are parties to the convention, which entered into force in 2004.

The [Stockholm convention on persistent organic pollutants](#) is a global agreement aiming to protect human health and the environment from highly dangerous, long-lasting chemicals (including the pesticide DDT) by restricting and ultimately eliminating their production, use, trade, release and storage. It came into force in 2004 and has been signed by the EU and all Member States. On the EU's initiative, nine further chemicals (including pesticides) were added to the blacklist in 2009.

Role of the EP

The EU's pesticides legislation falls under the ordinary legislative procedure.

The EP amended the pesticides legislation to ensure buffer zones for the protection of aquatic organisms and prohibit pesticide

use in public gardens, sports and recreation grounds, schools, playgrounds and near healthcare facilities. The EP also insisted that non-agricultural uses be included in the regulation on pesticide statistics.

In November 2011, the EP adopted a [report on honeybee health and the challenges of the beekeeping sector](#). The report calls for improved risk assessment methodology for pesticides, a system for preliminary notification of beekeepers in the vicinity in advance of application of pesticides, and a system to provide information about the position of hives when these operations take place. There is some evidence that certain pesticides (clothianidin and neonicotinoids) play a role in the collapse of bee colonies.

Current developments

Pesticide Residues

The European Food Safety Authority (EFSA) published its [third Annual Report on Pesticide Residues](#) in November 2011. The report is based on nearly 68 000 samples from 29 countries which were analysed for 834 pesticides. Pesticide residues were found in 39% of the samples, with 2.6% exceeding maximum residue levels – a drop of about one percentage point from the previous report. EFSA considers that risks to consumers are unlikely. Organic produce and food products of animal origin had the lowest exceedance rates.

Counterfeit pesticides

Europol has identified a [growth in the trade of illegal and counterfeit pesticides](#) in Europe, with a market value of billions of euros. Europol estimates that more than 25% of the pesticides in circulation in some EU countries are illegal. Such illegal pesticides threaten the health of farmers and consumers, and the environment. Europol and national experts recommend a comprehensive approach to this problem and cross-border investigations.

The issue has been the subject of several recent [parliamentary questions](#).

Stakeholder views

Farmers

[Copa-Cogeca](#), representing European farmers, opposes the reduction of pesticide volumes in national action plans and favours a risk reduction approach. It points out that the competitiveness of European farmers must be maintained, administrative burden should be minimised, and that farmers must be compensated if pesticide usage is restricted in certain areas.

Pesticide industry

The [European Crop Protection Association](#) (ECPA) also opposes quantitative reduction targets for pesticides, which it considers as arbitrary and unrelated to the risk or impact of pesticide application.

ECPA has made [proposals for indicators](#) on the sustainable use of plant protection products, and suggested a set of environmental, social and economic indicators.

Food retailers

In response to public concern about pesticide residues, some food retailers have set their own maximum residue levels, which are stricter than EU standards. ECPA considers that such private standards endanger the Europe-wide production of food for the single market, confuse and frighten consumers and limit the farmers' choice of the optimal plant protection products.

NGOs

Greenpeace has [criticised EU pesticide legislation](#) for allowing many harmful substances to be used.

[PAN-Europe](#), an environmental group, criticises Member States' frequent use of derogations, intended for cases of "unforeseen danger" and a lack of alternatives. On the other hand, ECPA, the pesticides industry association, argues that such derogations are necessary because the

law takes a precautionary approach and bans substances that may be needed in specific cases.

PAN Europe has also questioned the independence of the European Food Safety Authority (EFSA) and claimed that industry representatives have too much influence in EFSA's management board and expert groups. In reaction, EFSA has started to simplify and clarify its rules in order to identify and handle conflicts of interest.

Moreover, PAN Europe and ClientEarth have criticised EFSA for a lack of transparency, and took EFSA to the Court of Justice of the EU to gain access to documents. Although the case is still in progress, EFSA gave these NGOs full access to the documents in December 2011.

[European Beekeeping Coordination](#) reproaches EFSA for lacking in-house expertise on the relationship between bees and pesticides, and for relying on industry experts.

Main references

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