



Seed use by farmers in the European Union

A complex legislative framework for the marketing of seeds and for the protection of plant variety rights has been in place for decades in the EU. It relies on both European and national rules, with the EU legislation currently under review.

The general principle is that only seeds of 'commercial varieties' listed in the 'Common catalogue' may be purchased and used by European farmers; these varieties may also be protected by 'plant variety rights'.

Farmers are allowed to use 'farm saved seeds' (FSS) from protected varieties, in return for payment of a reduced fee (from which small farmers are exempted). Using FSS is possible only for some varieties, and the FSS must be used on the farmer's own farm.

However, fee collection systems are effective in only seven Member States.

Furthermore, a wide range of 'traditional varieties', not listed in the Common catalogue, are planted by farmers across the EU, more or less informally.

In some Member States (e.g. Italy) the use of such seeds has been officially supported and recognised for some time.

They are often used in low input farming systems and target local markets. Local, small-scale, non commercial exchanges of seeds of such varieties have remained quite common.

Recently, three European Directives introduced some flexibility in the registration and marketing of such varieties at EU level, provided they meet certain minimum standards.



Image Copyright Fotoklastic, 2011.
Used under licence from Shutterstock.com

In this briefing:

- Issue definition
- EU framework
- 'Farm saved seeds'
- Seeds of 'traditional varieties'
- Main references

Issue definition

Seeds, the fundamental input

Seeds represent a crucial input for crop production. Harvests are the result of the interaction between the genes contained in the seeds and the environmental conditions found on the farm (e.g. climate or cultural practices).

For centuries, plant breeding efforts have been carried out by farmers through selecting and retaining each year, on an empirical basis, the seeds of the plants that they thought would give the best yields for the following year's harvest. Discoveries in the fields of genetics since the end of the 19th century have led to the progressive development of scientific plant breeding activities, carried out by public agricultural research centres and private firms.

A comprehensive legislative framework has been developed in some Member States and at EU level. It includes a specific intellectual property rights regime, in particular to regulate the use of seeds by farmers.

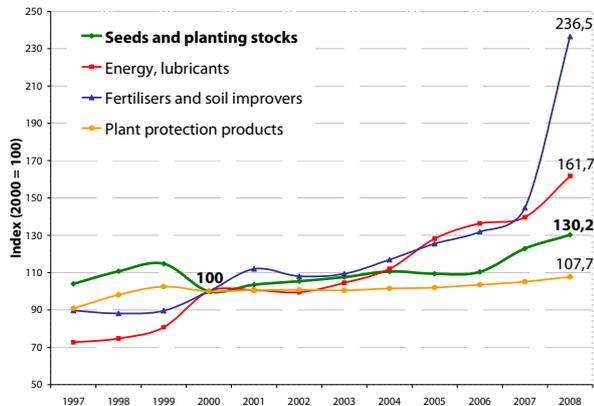
Seed costs

Seed costs are part of a farm's operating costs (i.e. cash expenditure required for the farm to operate), together with energy, fertilisers and plant protection products (pesticides) costs.

In the EU, prices of seed and planting stocks increased by 30.2% between 2000 and 2008 in nominal terms (figure 1). The increase in seed prices differed widely among Member States (figure 2).

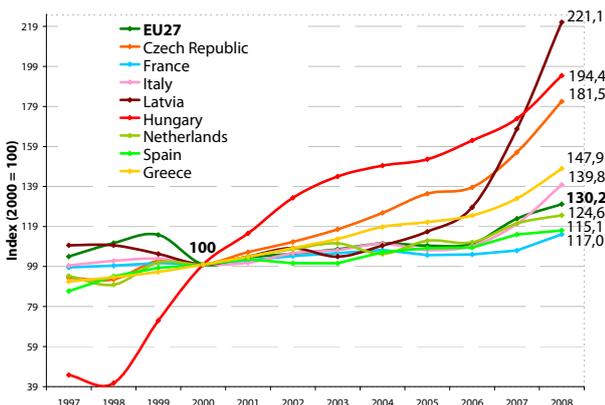
Faced with these figures, and with price increases for other inputs, some farmers are looking for ways to reduce their seed costs.

Figure 1: Evolution of agricultural input prices (base 2000 = 100, nominal values).



Data source: [Eurostat](#), 2011. Data extracted on 17/10/2011.

Figure 2: Evolution of seed prices (base 2000 = 100, nominal values).



Data source: [Eurostat](#), 2011. Data extracted on 17/10/2011.

The 'seed issue' is included in the draft report on the farm input supply chain by the EP's Agriculture and Rural Development Committee ([INI/2011/2114](#), rapporteur José Bové, Greens/EFA).

EU framework

Marketing of seeds

The earliest European legislation on seed marketing was adopted in the 1960s. A complex system has developed aimed at increasing agricultural productivity, improving the competitiveness of the European seed sector and harmonising legislation in the EU (to improve the internal market's functioning).

The legislation relies on two pillars:

- The first is the **registration** of new varieties. Candidate varieties of agricultural and vegetable crops undergo a 'DUS test', and may be registered only if they are proved to be:
 - Distinct, i.e. different from existing varieties.
 - Uniform, i.e. composed of identical plants.
 - Stable, i.e. conserve their characteristics over generations.

The Value for Cultivation and Use of agricultural crops (VCU, i.e. their agronomic performance, such as yield) is also tested, and only varieties with performance levels comparable to varieties already listed in the catalogues may be registered (i.e. in terms of yield).

Varieties which conform to DUS criteria are then listed in the national catalogue of the Member State in which the tests were carried out. Only plant varieties listed in such catalogues (national catalogues are compiled in a 'Common catalogue') may be marketed in the EU.

- The second pillar of the legislation is the **certification** of seed lots, i.e. verification of their quality (e.g. identity, freedom from disease or germination capacity).

This system is based on 12 Council Directives: one for the Common catalogue of varieties of agricultural species ([Directive 2002/53/EC](#)) and 11 other Directives covering different species (e.g. [Directive 2002/57/EC](#) for oil and fibre plants and [Directive 92/34/EEC](#) for fruits).

This legislation is currently under review in the framework of the EU's '[Better Regulation](#)' policy.

Among the problems identified in the system are the non-harmonised implementation of some EU provisions and the existence of some additional national implementing measures, as well as a lack of flexibility to adapt rapidly to changing market conditions.

The tests (noted above) required by this system are widely considered as good tools for providing varieties suitable for conventional agriculture. For instance, uniformity (e.g. in terms of ripening period, fruit characteristics or plant architecture)

helps to reduce losses during harvest and may make the processing of agricultural products easier.

Plant variety rights

Plant variety rights (PVR, a form of industrial property law applied to plants) were introduced in several European countries in the 1960s (even earlier in the Netherlands and in Germany), due to the growing role of the private sector in plant breeding activities.

The stated objective of the protection provided by PVR is to foster innovation in plant breeding (the seed sector dedicates around 15% of its turnover to research).

The EU system for the protection of plant variety rights is based on [Council Regulation \(EC\) No 2100/94](#) and on a series of implementing rules.

It reflects the principles of the [1991 Act of the Convention of the International Union for the Protection of New Plant Varieties of Plants](#) ('UPOV convention'). The Community Plant Variety Office has implemented the EU scheme since 1995. In 2011, around 18 700 variety rights were in force.

Varieties protected by a European PVR are protected on the whole territory of the EU. The EU system coexists with national PVR systems: there are 23 such systems in the EU (no system was developed or implemented in Cyprus, Greece, Luxembourg and Malta). A variety protected under a national system is only protected in that MS. National rights, for instance the Dutch system, may offer stronger protection than the EU system (e.g. on the duration of protection for some species).

To be protected, varieties must undergo DUS testing.

The recent [evaluation of the EU PVR system](#) pointed out that stakeholders were broadly satisfied with the current system, despite some weaknesses that need to be addressed (particularly the enforcement of provisions related to 'farm saved seeds', see below).

Differences in enforcement between MS are considered as a major problem for the EU-wide effectiveness of the system.

A minority of farmers were concerned that the current system does not encourage the cultivation of locally adapted varieties.

The patent issue

Agricultural research relies more and more on patents. In the EU, a plant variety may not be patented. However, a plant-related invention may be patented if it can be applied to several varieties.

The overlap of the plant variety rights system with the patent system represents a major concern for stakeholders, particularly because they consider that such overlaps may undermine the effectiveness of PVR over time.

'Farm saved seeds'

EU legislation acknowledges farmers' rights to use 'farm saved seeds' (FSS), (i.e. seeds obtained from a harvest produced by sowing seeds covered by a Community PVR). This practice is only allowed for some varieties (not for 'hybrid' or 'synthetic' ones).

The use of FSS is widespread in the EU for agricultural varieties, particularly where farmers share seed with one another.

Farmers must pay royalties for the use of FSS. The fee paid to breeders should be 'sensibly lower' (according to [Regulation 1768/95](#)) than the cost for equivalent certified seed.

Figure 3: Figures on the use of farm saved seeds.

Shares of FSS	Fee level
Around 40% of winter wheat, winter barley and rye in Belgium, France, Germany, Hungary and the United Kingdom.	In the United Kingdom: 52% of full licensed product charges for wheat, 47% for peas, 50% for potatoes. In the Czech Republic: 50% of the usual licensing fee.
Around 70-80% of agricultural crops in Poland, Finland and Hungary, and 94% of potato production in Poland.	
Around 50% of all seeds used in Germany.	

Data sources: [Evaluation of the Community plant variety rights acquis](#) / GHK, 2011.

The possibility to use FFS only concerns cereals, fibre plants, fodder plants, oil plants and potatoes.

Figure 4: Functioning of royalty collection systems for farm saved seeds in the EU.

	System functions well	System functions well only for some crops	System recently established	System functions poorly	System does not function	System under discussion but not yet established
Belgium						
Bulgaria						
Czech Republic						
Denmark						
Estonia						
Finland						
France						
Germany						
Hungary						
Latvia						
Lithuania						
Netherlands						
Poland						
Slovenia						
Spain						
Sweden						
United Kingdom						

Source: [Evaluation of the Community plant variety rights acquis](#) / GHK, 2011.

'Small farmers' are also exempted from the payment of royalties (i.e. a farmer producing less than 92 tonnes of cereals annually or less than 185 tonnes of potatoes). Furthermore, farmers must use the FSS on their own farms.

Different royalty collection systems for FSS are in place in the EU. Most of them rely on self-declaration by farmers. Breeders charge a levy on the amount of FSS declared by farmers.

The evaluation of the Community plant variety rights *acquis* notes that the system for the collection of royalties functions well in only seven MS (figure 4). It found problems with legislation and enforcement, as well as false or non-declaration by farmers.

FSS is a very sensitive issue for farmers, especially in the context of rising input prices (particularly fertiliser prices). They highlight the importance of FSS for them, which allows for a better balance between breeders' and farmers' interests, prevents breeders from gaining an unfair advantage in plant variety development, encourages adaptation of varieties for local conditions and contributes to greater biodiversity.

The draft report on the farm input supply chain ([INI/2011/2114](#), rapporteur José Bové, expected vote in plenary, February 2012) supports the maintenance of the farm saved seeds system and calls for the removal of restrictions concerning their use.

The draft report also calls for a new EU initiative on agro-biodiversity.

On the contrary, the majority of plant breeders are opposed to the agriculture exemption, which they claim represents a €65 million yearly loss for them. They consider that it represents a serious threat to their ability to reinvest in variety development

Three rulings by the Court of Justice of the EU have restricted the ability of plant breeders to request information from farmers about farm saved seed use and to enforce FSS provisions ([C-305/00](#), 2003; [C-182/01](#), 2004, [C-336/02](#), 2004). In particular, they may not request information from a farmer regarding FSS use without prior evidence of such use.

The evaluation suggests amending the current EU legislation to make it mandatory for growers to reply 'yes' or 'no' to requests as to whether they have used FSS.

Seeds of 'traditional varieties'

Most varieties grown in the EU are commercial ones. The wide use of such varieties has raised concerns over the loss of crop varieties traditionally used locally.

Nevertheless, a wide range of 'traditional varieties' (also referred to as 'conservation varieties' or 'landraces') of grains, horticultural crops and legumes are still widely planted by farmers (e.g. blue potato and yellow tomato in Italy, or Shetland cabbage in the United Kingdom).

Local, small-scale, non-commercial exchanges of seeds of 'traditional varieties' have remained quite common across the EU. These varieties can be found even where the seed market is dominated by commercial varieties.

Companies generally show little interest in these varieties as the markets involved are too small.

The [evaluation of the EU *acquis* on the marketing of seed and plant propagating material](#) highlighted the growing interest in developing and using traditional varieties.

Such varieties are often considered to be important in some rural areas, for some local food production systems and markets, because they are particularly fit for local environmental conditions and correspond to local tastes.

They are generally used in agricultural systems using low levels of inputs (such as organic farming) because they often show good levels of resistance to pests. They may also be associated with traditional farming practices.

Traditional varieties generally do not conform with the DUS criteria, for instance because they are not uniform (which may make them more resistant to pests).

There is a trend towards providing for more recognition and registration possibilities to traditional varieties. Recently, three Directives introduced some flexibility in the registration and marketing of traditional varieties at EU level, provided they meet some minimum standards (figure 5).

Figure 5: Directives introducing flexibility for the registration of traditional varieties.

Directive	Deadline for transposition	National execution measures
Agricultural crops Council Directive 2008/62/EC	30 June 2009	EUR-Lex ref. 72008L0062
Vegetable crops Council Directive 2009/145/EC	31 December 2010	EUR-Lex ref. 72009L0145
Fodder plant seed mixtures Commission Directive 2010/60/EU	30 November 2011	EUR-Lex ref. 72010L0060

These Directives target varieties which are adapted to local conditions and threatened by 'genetic erosion' (i.e. the loss of genetic diversity). Such varieties may be accepted in the catalogues of agricultural plant species if they meet some standards, but not strict uniformity and quality standards. They are referred to as 'conservation varieties' in the catalogues.

Each Member State develops its own scheme. The evaluators expressed concerns about the implementation of Directive 2008/62/EC,

highlighting the risk that Member States could implement it too restrictively.

The case of Italy

In [Italy](#), a law from 2007 foresees the creation of a national register of 'varieties to be conserved', under the responsibility of the Ministry of Agriculture, in collaboration with Regions and Autonomous Provinces.

Such varieties should not be included in any other national register and have been part of the Italian agricultural systems for at least 50 years; or at risk of genetic erosion; or not cultivated any more but conserved in specialised institutions and their reintroduction suggested on economic, scientific, cultural or environmental grounds. Farmers cultivating these varieties in their traditional environment are allowed to sell products from these varieties and to commercialise on local markets 'moderate' quantities of seeds, produced on their farms, of these varieties.

Farmers ensuring the conservation of these varieties may receive compensation from the Ministry of Agriculture, the Regions or the Autonomous Provinces. In 2008, several regions had put in place such provisions.

Main references

[Evaluation of the Community plant variety rights *acquis*](#) / GHK, 2011.

[Evaluation of the Community *acquis* on the marketing of seed and plant propagating material](#) / FCEC, 2008.

[Second report on the state of the world's plant genetic resources for food and agriculture](#) / FAO, 2010.

Further reading:

[European countries reports](#) / FAO, 2010.

Disclaimer and Copyright

This briefing is a summary of published information and does not necessarily represent the views of the author or the European Parliament. The document is exclusively addressed to the Members and staff of the European Parliament for their parliamentary work. Links to information sources within this document may be inaccessible from locations outside the European Parliament network. Copyright © European Union, 2011. All rights reserved.



<http://www.library.ep.ec>