

In Europe, the commercial seed supply system is highly organised and controlled. European law on seed marketing has evolved over the years to ensure that only uniform seeds for industrial farming can be sold on the market, condemning farmers' seeds and traditional varieties to the black market if not complete illegality. Together with strong intellectual property rules and technologies like hybridisation, European seed laws lock farmers out of the seed system. This article is an extract from a longer work by Guy Kästler. The article focuses on France which has taken the strictest approach to implementing seed laws in Europe, and perhaps the world.

# Europe's seed laws: locking out farmers



**GUY KÄSTLER**

Since the beginning of agriculture, the selection and reproduction of seeds, as well as the conservation and renewing of agricultural biodiversity, have never left farmers' fields. Of course, farmers' work with seeds has been influenced by many things such as local culture, traditional medicinal systems, religion and the birth of modern science, but these never took varietal development away from agricultural production. The breeding and production of seeds as a profession started in Europe and then in the US towards the end of the 19th century, first within specialised farms, and then among specialised companies. This was the beginning of the separation of seed production from farming.

The growth of markets, first at the national level and then at the international level, is what drove this separation. A local market supports and even produces local diversity. However, the spread

and concentration of the agribusiness chain (providers of seeds and farm inputs, processors and distributors) within large markets has encouraged economies of scale on a few of the most important crops, leading to uniform products at the cheapest price possible. Getting all farmers to plant the same seeds and varieties is an excellent way to achieve the same standardised product. And for the farmers to produce more for the same amount of work is the best way to reduce prices. But this is difficult as long as their harvest is dependent on an array of different agro-ecological and climatic conditions. Therefore the homogenisation of lands is important to produce homogeneous seeds and food. Through the use of pesticides and fertilisers, and often unlimited irrigation, farming has become more and more detached from its environment. Farmers have slowly become dependent on the industrial agricultural model encouraged by seed producers.



Production costs continue to decline, while the real costs are borne by the pollution of our soils, water and air, global warming, unemployment and the loss of small farms. These rising costs, which will be paid for by future generations, oblige us to abandon this agricultural model and the laws that support them.

Seed exchange between farmers at the local level is based on honesty and the basic rules of being a good neighbour. Everyone knows the farmer providing the seed and how good his or her seeds are. It's more risky to mislead your neighbour than a farmer who lives at the other end of the country who will never be seen again. As we increase the area of seed exchange, risk increases. The quality of seed is not visible to the naked eye and the market is soon invaded by fraudsters who sell any old seed. Industrial seed producers who want to control markets have used the excuse that the anonymous consumer needs protecting and that fraudsters need to be kept at bay. It is in the name of these objectives that the state, together with the corporate seed producers, put in place seed laws to ensure that the corporates can get, and maintain, an absolute monopoly on seed production (see table below).

### Locked varieties

Since the beginning of the 20th century in the US, industrial seed producers have looked for ways to strengthen their monopoly over the production of seeds by stopping farmers from re-sowing harvested seeds. Their first offensive was with cross-pollinating plants which cannot reproduce themselves sustainably without receiving pollen from another plant of the same species which has slightly different genetic makeup. As soon as a cross-pollinating plant is self-fertilised to fix its characteristics, its descendants express a depressive effect from inbreeding which makes the crop unsellable.

With the technique of hybridisation a breeder will get a seed with fixed characteristics and a good commercial value. Hybridisation involves crossing two inbred plants with characteristics of interest which are fixed yet weakened from depressive inbreeding. A farmer planting hybrid seed will get a field of identical plants, and any seed produced from this field will suffer from the same depressive inbreeding as from pure inbred plants. For these locked varieties, the farmer becomes indefinitely dependent on the seed producers and agroindustrial companies. Today, the majority of commercialised cross-pollinating species (beet, sunflower, most horticultural crops) are hybrid clones.

### Farmers' varieties

It is impossible to fulfill the criteria of distinctiveness, uniformity and stability (DUS), plus value for cultivation and use (VCU), required for registration on the national seed catalogue, without using breeding techniques which have become more and more sophisticated and are not available to farmers. (See box over page). From the first hybrids to modern biotechnology, the plant breeder has left the field for the laboratory. In this way, the plant breeder is imposing on farmers standardised crops which have been perfected in the laboratory and at research stations. A plant breeder cannot meet DUS and VCU criteria without the use of fertiliser, pesticides, mechanisation and irrigation to ensure conditions are stable and to evermore increase yield. Therefore today's commercial varieties are selected for and by these techniques for industrial agriculture, without which farmers cannot produce crops from these seeds.

Yet there are many farmers who wish, for a variety of reasons, to grow crops not listed in the official seed catalogue. They may not have the money to pay all the costs of the industrial production system that the seeds were bred for. They may be against buying these seeds or they may be attached to a traditional

### The evolution of seed laws in France

1884	The seed producers of France created the first National Centre for Seed Research (Station National d'Essais de Semences), with the aim of analysing the quality of commercial seeds (already differentiated from farmers' seeds).
1905	The first law on seed quality control was created.
1922	A committee on seed control drew up a list of wheat varieties and defined standards of quality for wheat seed in terms of varietal purity and germination rate.
1932	An official French seed catalogue was created for approved species and varieties, first for wheat, and then rapidly oats, potatoes, barley, fodder beet and maize. With the exception of ornamental plants, which are still not listed, the last plants to be added to the catalogue were horticultural vegetables at the start of the 1960s.
1942	The Permanent Technical Committee on Seeds (Comité Technique Permanent des Semences), made up of seed industry representatives and government scientists, started managing the seed catalogue. They determine the criteria for defining the varieties listed in the catalogue.
1949	A decree outlawed any commercialisation – whether free or for a payment – of seeds not listed in the national catalogue. Only certified seed producers are allowed to sell seeds.
Post-war years	In France, farmers' varieties soon started disappearing after World War II. Cooperatives, which buy all harvested crops, also started making more money by selling seeds, fertiliser and pesticides to farmers each year, and started selling hybrid seeds.
1966	The European Community created the Common Catalogue.
1998	France created an annex to its national catalogue for amateur vegetable varieties (non-commercial use). The EU adopted a directive opening the possibility of a separate list for conservation varieties.
2005	European Commission proposed a directive on conservation varieties.



## The EU seed catalogue system

Each member state of the European Union is required to maintain a national catalogue (or “list” as it is called in some countries) of officially recognised varieties which may be freely marketed in its territory. The national catalogues are then collated together by the European Commission into what is known as the EU Common Catalogue. Varieties which are not listed in a national or the Common Catalogue are, technically speaking, not allowed to be marketed in the EU.

All varieties submitted to be registered need to be tested for DUS (distinctiveness, uniformity and stability) and, for some crops, VCU (value for cultivation and use) over a minimum two-year period. Distinctiveness means that the variety is distinguishable by one or more characteristics from all other registered varieties. Uniformity means that all plants from the same batch of seed are the same. Stability means that the plant is the same after successive generations. VCU means that compared to other registered varieties, the variety being registered offers a qualitative or technological advance (either when grown or processed).

In Europe, there is a strong relation between this catalogue system and intellectual property rights. In both cases, the same DUS testing is required and it is often done by the same technical services. Most varieties registered for sale on a national catalogue or list are also protected by PBR.

way of doing things. They may be looking for more autonomy or to develop alternative farming systems (organic, peasant, low-input, regional, etc). Or they may simply not find what they need in the official seed supply system. In all these cases, farmers may be tempted to grow traditional, local or peasant seeds. Consumer demand for better food quality together with society’s demand for farming systems that are environment-friendly and disconnected from agricultural subsidies are pushing more and more farmers in this direction.

For this, farmers need to use traditional peasant techniques of seed conservation and selection. These methods adapt crops to the diversity of terroirs<sup>1</sup> and climates and to how the crop is used after harvest. Such crops are not necessarily stable outside of their terroirs, nor are they uniform due to the natural diversity within the crop, and they are constantly evolving. They will not meet the criteria for VCU as they are not adapted to industrial processing or widespread distribution. For this reason, these seeds do not correspond, in legal terms, to varieties - they are “non-varieties”. Therefore, plants selected for diversified, organic or low-input agricultural systems, as well as nearby marketing systems, fall outside the trade-driven definition of “varieties”. Even when farmers’ materials can respond to the strict marketing criteria, it is impossible to pay the registration costs (which can be as much as 5,000 Euros for a vegetable variety and 15,000 Euros for a cereal)

<sup>1</sup> “Terroir” is a French word that has no real equivalent in English. It refers to soil or land, but it encompasses elements of geography, pedology and culture all at once. Terroir is a source of identity. It is often used to explain the characteristics of a given wine.

as such varieties would only be produced in small amounts for local farming. Finally, a registered variety is not allowed to evolve or adapt. It would have to be re-registered as a different variety.

Even faced with all these problems, farmers still cannot register their “non-variety” on the seed catalogue. They therefore cannot sell, or even give away for free, their seeds and even exchanging seeds with a neighbouring farmer is illegal. The European law only allows for farmers to produce seed from their own harvest which can only be used on the same farm.

Even if a farmer could reproduce seeds for his or her own use, individuals are often unable to maintain a variety. Varieties are very much dependent on the collective work not based on a market, but on regular exchanges. Such varieties need to be crossed with other varieties and continuously renewed so that the plant can continue to express diversity and genetic variability. In each terroir, certain fields or plots from certain farmers produce better seeds of one species, whereas for another species, it will be other farmers and other plots of land. A farmer with diverse production cannot produce all the seed required for planting the next year. A market gardener cannot simultaneously reproduce several cross-pollinating varieties from one species and at the same time produce more seed from one variety than is needed (for cabbage, at least 50 plants are needed to produce seed and keep the diversity, which produces about one to two kilos of seed, yet a market gardener needs between 50 and 100 grammes). Finally, nobody is safe from the loss of all seed from crop failure.

If certain stages in seed production can temporarily be skipped, the exchange and sale of restricted quantities of farmer seed is the key to the dynamic and collective management of agricultural biodiversity which is at the base of their existence. To forbid exchange is to forbid farmers’ seeds.

### Farm-saved seed

One of the problems that corporate seed producers continue to face is self-pollinating crops, such as wheat. With these crops, farmers can harvest, save and replant seed the following year. Farm-saved seed is free seed and this is not tolerated by commercial seed producers. Of course, it is illegal to sell or exchange seeds which are not on the European seed catalogues, and seeds cannot be used without the permission of the Plant Breeders’ Rights (PBR) owner when they are proprietary. But physically speaking, nothing stops farmers from saving, exchanging or to selling their seed



harvest for re-sowing. Therefore varieties deleted from the catalogue can actually be reused for many years. Farmers select their own “local” varieties and become again completely autonomous from seed producers. Farm-saved seed therefore allows for the renaissance of “farmers’ seeds” which the catalogue system has tried to eradicate. Farm-saved seed is still used widely in Europe, for example in France accounting for 50% of self-pollinating crops.

So the seed industry along with government has come up with a raft of other measures meant to suppress the use of farm-saved seed.

### 1) PBR

Most seeds are PBR protected, and plant breeders are now extending their influence around the world by coaxing countries into joining UPOV. The latest revision of the UPOV Convention (1991) increased the protection given to PBR holders so that all varieties which are “essentially derived” from an initial protected variety are also covered. This new step was aimed at preparing the legal ground for new genetically modified varieties which had been “essentially derived” from PBR varieties. However, it also allows the plant breeder to get legal rights over all farm-saved seed which is “essentially derived” from a protected variety. In 1994, EU regulation 2100/94/EC was adopted to implement UPOV 1991 in the EU member states. It allows farmers to sow, for certain crops, farm-saved seeds of PBR-protected varieties on their own farm but only if they pay a royalty each year to the breeder. Small farmers (those with a cereal harvest of less than 92 tonnes) are exempted from this provision. As it is difficult to monitor which varieties are being saved on the farm, several European countries, such as Belgium and France, have developed a Mandatory and Voluntary Contribution (MVC) scheme. Under the MVC, a payment is collected from all farmers growing bread wheat. It is then reimbursed to small farmers, who are exempt from the royalty on farm-saved seed, and to farmers who bought certified seed. The fee is even collected from farmers who are not growing PBR-protected varieties. This scheme has been challenged several times in the courts and the cases are still on-going. If allowed to continue, these MVC payments may effectively and legally end the existence of farmer-saved seeds.

In Germany, the seed companies have written letters to all “farmers” (including dead farmers and people who were not farmers) demanding a full inventory each year of what seed they are growing, to determine the royalty on farm-saved seed that the companies should collect. Since 1998, more

than 4,000 German farmers have refused to fill out the questionnaire, believing that it is their right to save and use their own seeds on the farm, and have been taken to court. Three of these cases so far have gone all the way to the European Court of Justice. In the first case, the ECJ ruled that the seed companies cannot indiscriminately wrestle such information out of the farmers. In another case it ruled that an 80% royalty on farm-saved seed, as eyed by the companies, was way too high; it said that 50% should be the maximum (see box):

### The Linda potato controversy in Germany

Linda is a potato variety that was bred by plant breeder Friedrich Böhm. In 1974, it was registered and certified for sale in Germany and protected with plant breeders’ rights (PBR) for 30 years. Europlant was assigned the rights to maintain and collect royalties on marketing Linda. One month prior to the expiration of the PBR certificate in December 2004, Europlant ceased maintenance of the variety, even though its registration on the national list was valid until 2009. This meant that no one else could take over maintenance because the variety was still under PBR. So Linda was marked for deletion from the German potato market.

Europlant claimed to stop maintenance because there are other potato varieties now available that are similar but superior to Linda. But the move was constructed in such a way that Linda was de-listed and may not get re-listed because it may be difficult for it pass the VCU tests of today. Various groups in Germany have called it foul play, saying that Europlant just wants to control the market.

Organic farmers and small farmers organisations are upset that Linda is being taken off the market because it is a very popular variety. But Europlant says Linda only commanded 0.5% of the market between 1974 and 2004). Critics also say that Europlant is improperly playing a role of monopolist, deciding what is good for German consumers. Europlant responds that Linda was a quality potato because seed production was licensed out to a few highly controlled seed producers and that if it goes into the open market, seed quality will decline, harming both farmers and consumers.

The large German farmers’ organisation, Deutscher Bauernverband, shares some of the criticism of Europlant’s handling of the situation. It says that production of Linda seed potatoes will now have to be handled in private – on the farm, off the market – and commercialisation of the final produce will be restricted to direct marketing between farmers and consumers. This will have the effect of creating greater distance, or even distrust and disruption, between farmers and breeders in Germany. Europlant has retorted that people are making a lot of noise not because they want to keep Linda alive but because they want to grow potatoes without paying royalties on seeds.

Indeed, the popularity of Linda potato is such that a lot of noise has been generated in the media. And at the last minute (the deadline was the 30 June 2005), the German authorities have given Linda a two-year extension on its use following a request from organic farmer Karsten Ellenberg’s farm. Ellenberg, who has also applied to re-register the variety, successfully argued that there was still a lot of Linda potato seed in stock to be used, which should be used up. But thereafter?

For more information visit: [www.kartoffelvielfalt.de/linda.htm](http://www.kartoffelvielfalt.de/linda.htm)



## 2) Patents

As a result of GM crops, Europe adopted a directive on patenting plants and animals (98/44/EC - the legal protection of biotechnological inventions). Protection has been provided with a patent on genetic information (a gene plus a function) which includes all biological derivatives from its reproduction and multiplication. A variety already covered by a PBR cannot be patented, though a variety which includes a patented gene can be protected with a PBR. Despite the opposition of the seed industry, all new GM varieties need to be registered in the seed catalogue, even if the same variety is not GM is already registered. The patent only covers the gene when it is knowingly used. Therefore a farmer can re-sow harvested seed that has been accidentally contaminated, but as soon as the contamination becomes publicly endemic, as with oilseed rape in Canada, the farmer can no longer be ignorant of the contamination and use the contaminated varieties (see box below).

## 3) Seed cleaners

Farmers wishing to use farm-saved seed will invariably send their seed to a seed cleaner. Seed cleaners, who are often mobile, remove poor quality seeds and weed seeds, chaff and awns, and treat the seeds against pests and diseases. This requires substantial equipment which is not available to small- and medium-sized farms. This is why entrepreneurs with mobile equipment clean seed for farmers as a service. At the end of the 1980s, the French seed companies tried to ban such seed cleaning, known as triage à façon. The

National Coordination for the Defense of Farm-Saved Seeds (CNDSF) brings together farmers and farm-seed cleaners fought this attempt to ban seed cleaners and continues to champion the rights of farmers to use farm-saved seed. A 1994 European Community directive recognises the right to clean harvested seed “by the farmer or by a service provider” for replanting.

## 4) Agricultural subsidies

Agricultural subsidies have also been used to reinforce the monopoly that seed companies enjoy. In France, for example, subsidies paid to encourage farmers to grow durum wheat are only available for those buying certified seeds. On the other hand in Italy, where the terroirs and local growing conditions are just as important the certified variety, subsidies are given for all durum wheat varieties grown. However, the European Commission is trying to get Italy into line.

## 5) Pest and disease control rules

Health regulations also reinforce the seed companies' monopoly. Subsidies in France for fruit trees or vines are only provided for certified plants bought from certified nurseries and from certified vine stock without viral contamination, all held in public centres. The planting of all vine stock which is not cloned from a certified type is completely illegal. The struggle against viral disease provoked by industrial agriculture practices, by and large manageable under small farmer and agroecological practices, is the basis for this rule. However, when the contamination is from the nursery, little appears to be done. This shows that the disease regulations are more about protecting nurseries than the prevention of disease.

The rules for the protection of quality production also have the same aim: farmers can only plant a few certified vines; farmers are stopped from growing other vines which are grown around the world. Seed treatment, which farmers cannot do themselves, can also be made obligatory, as with the case of sunflowers. Illicit industry agreements also have the same aim. For example, pesticide companies were taken to court and found guilty when they refused to sell their seed chemicals to farmers or certain seed cleaners.

## 6) Production contracts

Finally, when the law isn't enough, the companies themselves impose contracts on farmers in which a harvest will only be bought if certified seed is used.

## Coexistence

In the case of GM crops being grown within Europe, all seed laws will have to face the inevitable consequences of patented genetic pollution. In a 2001 directive (2001/18/EC Deliberate Release of GMOs) the EU established a new right, the right to coexistence, whilst allowing member countries to define (if they wished) national laws to manage coexistence. According to the EU, coexistence means that all crops can be grown next to each other without any being banned. This means that farmers can choose to grow GM crops, but can also choose to grow crops that have not been contaminated with GMOs. But with the inevitable contamination coming from GM crops, the right to grow GM crops is also a right to destroy non-GM agriculture.

Discussions on coexistence are continuing throughout Europe in 2005. The Italian 2001 seed law establishes the right to protect traditional farming practices. This right goes beyond “risk” to health and the environment and introduces the concept of “risk to agricultural systems”. Legally, such risks need to be evaluated before any EU-authorized GM crop can be grown. The same law only allows for the government minister to approve the growing of GM crops which therefore places the government as liable for any contamination.



## Conservation varieties

The extreme position taken by the seed industry in France, which cuts the very branch of biodiversity that they sit on, is not found all over in Europe. Most countries tolerate informal exchanges of seeds between farmers and some countries allow the marketing of small quantities of seeds of varieties not listed on the catalogue. In 1998, the EU member states agreed to make special provisions to allow the marketing of “conservation varieties” under Directive 98/95/EC. Within this directive, EU countries can optionally implement these laws, as was done by the Italians in 2001 (Law 212/2001) which recognised the right of regions to establish a catalogue of conservation varieties.

That same year in 1998, the Swiss, who are not a member of the EU but who are part of the European seed area, adopted a law authorising the commercialisation of limited quantities of seeds not listed in the catalogue (see box). Also in 1998, France created an annex to its national catalogue for amateur horticultural varieties. Seeds of the varieties can only be sold to non-professional gardeners who don't commercialise their harvest.

In March 2005, the European Commission came up with a proposed directive on “conservation varieties” which deviates from the standard DUS criteria and replaces testing with “the knowledge gained from practical experience during growing, reproduction and use”.

If it is adopted, this directive will have to be implemented by member states by 1 June 2006. The proposed definition of conservation varieties is limited to local varieties at risk from genetic erosion, which makes it clear that this is only about saving, at a low cost, what is at risk of disappearing and which could tomorrow be used as a resource for the seed industry. The recognition of the possible evolution of a variety (from repeated growing) introduces implicitly the continued creativity in dynamic farmers' seed selection. Seed mixtures are not recognised unless associated with a natural or semi-natural habitat, which excludes mixtures selected for associated crops outside of the defined zones in the national scheme of classification of natural or semi-natural vegetation.

Within this directive, conservation varieties could be commercialised in very limited quantities, without an indication of whether this is a global quantity for each variety or a quantity for each harvest commercialised, nor are there details of who can commercialise these quantities. Without more details there is a risk that a government will

## Opening up the seed system in Switzerland

*(with collaboration from Francois Meienberg of Berne Declaration)*

In Switzerland, as in the EU, seeds cannot be marketed or exchanged unless they are registered and certified with the government. But in 1998 the Swiss government amended its seed law to allow for the circulation of local varieties, traditional ('obsolete') varieties and landraces ('ecotypes'). It did this through a special derogation from the main law. The derogation states that seeds of local varieties can be sold or given away for free without being registered or certified in the conventional way, as long as they satisfy regular quality controls (germination, purity, etc) and bear a special label. In addition, the government has the right to limit the quantity of seeds of local varieties that can be circulated.

This means that planting material of traditional varieties can legally be marketed without fulfilling the DUS and VCU criteria. But clearance is necessary from the government, which maintains a list of traditional varieties cleared for marketing, and the quantities are restricted. The quantitative ceiling at present is the amount of seed needed to cultivate 5-10 hectares of the variety per year, for the whole country – which the government translates into a weight measure. For example, if someone wants to produce and sell a locally adapted potato variety for growing in Switzerland (where one tonne of seed potato is needed for one hectare), 5-10 tonnes of this seed potato will be permitted for circulation in a given year. In the six years since it was signed into law, the government has given authorisation for 64 cereal and 67 potato varieties under this derogation. Although welcome, this new provision raises a few questions:

- Who has the right to sell the seed if this variety gets clearance: one person or 50 people? If only one person, the first to register that year, then this is a monopoly on that potato variety. There is normally only one registrant per variety, in Switzerland, 'the breeder'. But who is 'the breeder' of a traditional variety? The government says it never considered this matter. The thinking is that if someone else wants to produce seed of a listed traditional variety, that person should contact the registrant and they can sort it out.
- How can or does the government control the quantitative limits? At present, there seems to be no system for this.
- What does the quantitative limits apply to: sale or exchange or both? Circulation, in the law, covers both sale and exchange.

Pro Specie Rara (PSR) is one organisation making use of this new legal provision. Since 1982, PSR has been maintaining and producing seed of traditional plant varieties as well as threatened animal breeds and final produce for consumers. With the change in the Swiss seed law in 1998, it can now go into marketing traditional seeds, which it started doing in 2001. But the quantitative limit is turning into a problem. PSR has recently gained authorisation to market a blue potato variety, off the mainstream catalogue, called Blue Swede. It produced 10 tonnes, within the government's restriction, and are marketing the seed material through Coop, a huge retailer. But now, the Swiss organisation of potato growers and seed potato producers, is complaining that at 10 tonnes, Blue Swede is gaining a noticeable market and is not fulfilling a 'conservation' role anymore.

Negotiations are now starting up to find a solution. The government thinks that the Blue Swede should just be entered into the regular catalogue, so that there is no more quantitative limit. But then it's not clear if it would need to go through DUS and VCU testing. PSR might need to appeal to have it registered under one of the seed law derogations to avoid the DUS and VCU testing.

The EFTA Convention establishes a common seed market among the four EFTA member states (Iceland, Liechtenstein, Norway and Switzerland), allowing the free circulation of seeds accepted for marketing in one state among all four states, with the specific exclusion of local varieties accepted for circulation in Switzerland. In other words, local materials (at least from Switzerland) are excluded from the EFTA common seed market.



allocate the quantity to one seed producer. Finally, nothing is said about the inalienable right of farmers and gardeners to freely exchange outside of the seed market, whatever they have harvested themselves. In countries where this exchange is strongly suppressed, this directive does provide a slight improvement. However, in countries where this exchange is largely tolerated, particularly in the new member states in Eastern Europe, this could be used as an excuse to restrict seed exchange.

European organic farmers, since 2003, can use conventional certified seeds but only for varieties that are not already available as organic seed. As official organic seed is subject to the same rules for all commercial varieties, these seeds are not necessarily adapted to local conditions, which is essential for organic production. In 2004, Germany put in place specific criteria for the registration of organic varieties. Since early 2005, France is looking into specific VCU criteria for low-input crop production.

**What now?**

There are still a number of options available to farmers in Europe to give them more flexibility in using their own seeds. Several countries have asked for the directive on biotechnology patents (98/44/EC), which allows patenting on life, to be re-negotiated. Evidence since 1998 now questions the science upon which this patent law was based. In Italy, a country which takes a far more flexible view on European seed laws, some interesting developments are underway. The growing use of “conservation varieties”, especially by organic agriculture, provides ground to implement a law for their registration. The discussion around conservation varieties could also be used to reintroduce the concept of collective rights within seed-related legislation, including to protect farmers’ seeds against biopiracy. The Swiss law allows for the exchange of limited quantities of seed from non-registered varieties. This should be the opportunity to state unambiguously the absolute right of farmers to freely exchange their seed outside of all commercial regulations. ✍





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