

Position paper of organic breeders in Europe, supported by ECO-PB, FIBL, ABDP, KULTURSAAT, Bingenheimer Saatgut AG, Sativa Rheinau AG, Reinsaat KG, Demeter and Bioland

concerning the EU seed law revision process

Proposals to build more biodiversity within and between varieties for strengthening adaptability to climate change and to meet consumer demands

The ongoing discussion within the revision process of the European seed law has come to a point which shows clearly that the further development of the current system has to take account of more than the needs and objectives of the international seed industry.

The new legislation must provide an appropriate and proportional framework to encourage the work of breeders and seed suppliers working in special markets or agro-systems like organic farming. It must respect the needs of such breeders, who often operate regionally, and give special attention to the preservation and improvement of agro-biodiversity in Europe. Agro-biodiversity preservation and enhancement is an asserted political aim of the EU as declared by the FAO's **International Treaty on Plant Genetic Resources for Food and Agriculture**.¹

Alongside the work of professional breeders, the work of seed savers and farmer breeders is also important for the maintenance and further development of agro-biodiversity (please see recommendations 2 and 3 below). ***This paper focuses on giving technical advice on how to create an appropriate legal framework for the work of professional organic breeders*** (recommendation 1).

Recommendations:

- 1. Creation of a new group within the "Varieties tested officially or under official supervision" for rare and population varieties, which mainly belong to special breeding programmes (organic breeding, breeding for low input systems, on-farm breeding and breeding programmes for biodiversity). (Proposals for implementing this new group are explained in the enclosed Annex I and II)***
- 2. Simplification of Conservation and Amateur directives by eliminating the restrictions on packet sizes, marketing lots and region of origin.***
- 3. Legalisation of the informal seed sector, allowing the marketing of small quantities and the exchange of seeds to proceed without regulation. This issue refers to the open letter "Seed diversity in need for help".ⁱⁱ***

Background:

One objective of breeding population varieties and other forms of internally diverse varieties for purposes such as organic farming is to use a broad genetic base which retains sufficient diversity to allow for adaption both for highly specific environments (e.g. soil conditions) and for the general problem of increasingly dynamic weather conditions. Broad intra-varietal diversity, however, is in contradiction with uniformity and stability criteria that varieties are currently required to meet for registration in the official seed catalogues. Up to now it has been difficult to bring those diversified varieties through the official registration tests; at most they may only find their way to the market as Conservation or Amateur varieties. An objective of the present revision of the EU seed marketing legislation must therefore be to create a legal space where these varieties with more genetic diversity and less uniformity can be officially registered and marketed.

Status quo and anticipated problems:

Regarding this objective, the Commission's option and analysis paper (April 2011) offers a potential solution within Scenario 4, "Enhanced Flexibility", but concrete mechanisms for realising this scenario are lacking.

Reference is made to the existing derogation rules for Conservation and Amateur varieties,ⁱⁱⁱ but these are completely insufficient (within these rules it does not allow, for example, for any commercial exploitation of arable crops newly bred). The requirements placed on Conservation and Amateur varieties severely restrict the marketing and use of these varieties in professional food production.

Furthermore, the scenario in its present form would lead inevitably to a system of two classes as regards the legal definition of varieties and the regulation of their marketing. For example, the following conflict could arise: If a so-called "not officially tested variety" (NOTV) is described by breeders in a reduced form only but deemed at a later stage to be the same as a so-called "officially tested variety" (OTV), the NOTV would have to be withdrawn from the market even if it had been released first. This puts breeders of NOTV at a considerable disadvantage.

The scenario as proposed is likely to hinder the introduction of genetically diversified varieties onto the market, as well as their chances of remaining there. A new objective is therefore required.

Objective: *Enhance access to markets for population varieties (with a broader genetic base than pure lines) to give them the same chances of commercial use as pure-line cultivars (hybrids or high performance open-pollinated varieties).*

Rationale:

1. Socio-economic aspects:

- 1.1. This will expand and safeguard freedom of choice for farmers, gardeners and consumers.
- 1.2. It will introduce a legal definition for all marketable varieties, whereby genetically diverse population varieties may also pass official tests and gain approval for commercialisation.

2. Agro-economic aspects:

- 2.1. Marketing of population varieties will become possible without the restrictions currently imposed on Conservation or Amateur varieties.
- 2.2. Competition within the seed market will be enhanced due to increased availability of varieties, and the demands of farmers, gardeners and other consumers will be better satisfied.
- 2.3. Genetically diversified varieties will become increasingly important as climate change advances, due to their capacity to buffer climatic fluctuations.

3. Biodiversity aspects:

- 3.1. Enhanced options for the marketing of genetically diversified varieties for food production will preserve and build agro-biodiversity.
- 3.2. Diversified varieties are expected to improve the resilience of agricultural production to climate change.
- 3.3. The proposed framework will sustain and improve breeding systems for special markets and on-farm breeding, facilitating the preservation of the plant diversity which is our cultural heritage.

Moreover, the proposed system will bring EU seed legislation into compliance with the **International Treaty on Plant Genetic Resources for Food and Agriculture**, which is ratified by the EU and all its members, in particular **Article 6, Sustainable Use of Plant Genetic Resources**.

Annex I

Course of action for the implementation of a new group of officially tested varieties

(for crop species covered by the current EU catalogue)

1. Adapted DUS tests:

- 1.1 **Organic testing conditions:** breeders may be permitted to choose whether tests are performed under organic or conventional or both conditions (currently, testing under conventional conditions is compulsory which creates unnecessary expense for organic breeders).
- 1.2 **Assessment of uniformity:** the only strict requirements are those related to characters with economic relevance for consumers / farmers. All other characters are left unrestricted, i.e. they are permitted to be non-uniform.
- 1.3 **Assessment of distinctiveness:** differentiation of characters into
 - 1.3.1 **Characters needed for the assessment of uniformity** with economic relevance (1.2): approach as previous;
 - 1.3.2 **Characters not relevant to assessment of uniformity** may also be used for assessment of distinctiveness through description of gradual uniformity or frequencies.
- 1.4 **Assessment of stability:** the ten year period as set out in the current system is maintained.

2. Adapted VCU tests:

- 2.1 **Optional** on request of the seed supplier / breeder.
- 2.2 **Under organic farming conditions:** breeders may be permitted to choose whether tests are performed under organic or conventional or both conditions (as practised in Austria and under discussion in Germany); currently testing under conventional conditions is compulsory which creates unnecessary expenses for organic breeders.
- 2.3 **New definitions of “value”** additional to or replacing parameters like: organic, sustainable, enhancing biodiversity etc.

3. Further conditions for the new category of registered and officially tested varieties:

- 3.1 Neither Variety protection (under CPVR legislation (EC) No 2100/94) nor any patent are possible for genetically diverse population varieties.

- 3.2 The registration of population varieties does not block the development of new varieties within their genetic range. In case of a more narrow selection those varieties shall be defined as distinct uniform varieties and they may be protected.
- 3.3 CPVR-protection of distinct varieties with uniform characteristics falling within the range of those characteristics present in diverse populations should be possible - without any restrictions on the more diverse varieties with broader ranges of characteristics; thus the protected variety and the non-protected population variety can be used and registered in the catalogue in parallel.
- 3.4 Hybrids cannot be registered under this new group as well as varieties bred with techniques of genetic modification (the breeding process and any property right must be disclosed for registration in this category).
- 3.5 All standard conditions regarding germination rate, seed health and so on are also applicable to this new group.

Technical aspects:

What is necessary for DUS and why?

The legal situation currently demands high levels of uniformity for production of marketable seeds. Yet farmer and consumer demand exists for non-hybrid lines in hybrid-dominated species such as sweet corn (now tested for DUS in Hungary for use in Germany). More biodiversity for special markets has to be made available. At the same time, climatic changes make it necessary to deliver varieties with a greater adaptability than that which pure lines in many species can offer. For this reason, solutions must be designed which make it possible to release varieties embodying an increased amount of biodiversity such as open-pollinated varieties, multi-line varieties, composite cross varieties and diverse populations.

What is necessary for VCU and why?

The current legal situation not only demands narrow uniformity in variety production, but also requires varieties to be tested in conditions that are sometimes unsuitable (e.g. conventional testing of organic cereal varieties) and often expensive.

With the category of Conservation varieties, it became possible to market older varieties, or once in certain areas released varieties, which were not registered within the last two years. Nonetheless, varieties failing the VCU test and without realistic prospects for wide-scale marketability are unlikely to reach the market at all, as it is simply too expensive to adapt them. The expense of VCU also hinders innovation, which often starts with niche markets. For these reasons, adapting the VCU regime should improve market conditions.

There is also a resilience argument: the extreme weather caused by climate change will require crop plants to be more adaptable, and higher biodiversity means more adaptability. We should be able to market varieties within which there is variation in some characteristics (e.g. response to weather conditions) and uniformity in others (e.g. maturation time, processing quality and end use).

At the same time, it is essential for different testing regimes to be developed for different farming systems: tests for varieties grown in conventional and high-input conditions are not suited to testing varieties grown in organic or low-input conditions. Not only must the wide range in farmers' demands be considered, but also the range in regional environmental demands.

How to modify DUS?

A variety with more biodiversity in itself should be described using frequencies in characteristics rather than the presence of pure uniformity in every individual plant. Even within the present system there are already species which are treated in this way, including open-pollinating varieties such as rye. With threshold values adapted to yearly consumable or produced amounts of seed - with more uniformity for large-scale varieties and less uniformity for small-scale varieties - more biodiversity within and between varieties could become possible.

How to modify VCU?

There is no doubt that adapted variety descriptions are necessary for farmers, gardeners, processors and traders. For varieties with a restricted market such as purple-grain cereals, high amylose barley and organic dry area rye, the required number of test locations could be reduced. This could be done on a voluntary basis in officially or privately managed trials. For varieties under a specified threshold of seed turnover per year, (e.g. 200 ha of cereal seed production area), a minimal number of trials under different environments in not more than two years should be enough to generate a basic description. For these trials, supervision by the authorities would be enough to fulfil minimum requirements (protocols for evaluation, characterization of location, documentation of treatments).

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- i FAO (2009): International Treaty on Plant Genetic Resources for Food and Agriculture, <http://www.planttreaty.org/content/texts-treaty-official-versions>
 - ii Arche Noah and list of signatories (April 2012): Seed diversity in need for help, Open Letter; <http://www.seedforall.org/>
 - iii Directive 2008/62/EC and Directive 2009/145/EC

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