



European Plant Science Organisation
www.epsoweb.org

STATEMENT

Plant breeder's rights and patent rights

Brussels, 26.2.2015

- 1- Developing high-performing plant varieties requires substantial investment of skills and technology. Those who develop such varieties are entitled to earn a reward. If there is insufficient return on investment, society risks having a financially non-viable seeds and plant breeding sector, with substantial consequent risks to food security and European competitiveness.
- 2- Nevertheless, such varieties carry combinations of genes that can be traced back to the activity of farmers over 100s of years, and are part of our agri-cultural heritage. It is essential to maintain the breeder's exemption, by which breeders can make crosses to the commercial varieties of their competitors, and go on to breed new varieties with novel gene combinations. In contrast, in the US, plant varieties can be patented; we do not want this scenario in Europe, and wish to maintain a more "open source" arrangement enabling further improvements to crop varieties to be more easily made.
- 3- Currently in the US, and in the future in Europe, new varieties will contain transgenes (GM traits) that are protected by patents. This should not preclude these varieties also being available for crosses by all breeders as they try to create new and improved varieties. The breeder's exemption must also apply to GM varieties, though the GM trait itself cannot be incorporated into new varieties without paying a license fee to the patent-holder upon commercialisation.
- 4- The academic exemption for breeding and genetics with commercial varieties should also be maintained.
- 5- New plant breeding technologies (NPBTs) will enable specific new alleles (forms) of genes to be created with novel desirable properties. Patent protection should be extended to these new alleles, but again, varieties carrying such alleles should also be available for further breeding by both academic and commercial sectors.

Appendix

EPSO is in full support of plant breeder's rights and the right to breed for all commercial varieties, including transgenic varieties. However, for public interest, EPSO states it is necessary to preserve open access for public and private breeders to genetic resources, and argues we should consider them as a common heritage while defending patents for specific inventions on genetic modification and breeder's rights. With the advent of even more new technologies (New Plant Breeding Technologies or NPBTs) it has become easier to derive a new and better variety in a shorter time frame from wild species or existing varieties. The idea that all these developments could be easily patented as was assumed in 2011 has proven not entirely right. This was due to different activities within the European Patent Office (the program "raising the bar", which was set up to improve the quality of patent evaluations; the perception that what already is available in nature cannot be an invention but merely is a discovery which cannot be protected by a patent) as well as in different Member States based on the public opinion and/or shifting scientific insights. The fact that both the Netherlands and Germany have amended their patent laws regarding plants and that also France is looking into possibilities to limit the patenting of plant related matter is proof of a changing environment.

In the plant and seeds businesses, Plant Variety Protection is still the most commonly used way of protecting varieties. However with the advent of new technologies it has become more and more common to also protect plant species or plant genes by patents. Because of the complexity involved and the difficulty by which genes could be cloned in the past, applications for IP protection of genes was routinely applied for and granted. Since then however technical progress and understanding has been enormous and cloning a gene in many plant and crop species is now relatively straightforward. This, coupled to the view that what is present in nature cannot be an invention but merely is a discovery and thus not patentable, has led to a decline of patent applications and a freeze in approving and granting patents. The European Parliament has asked the European Patent Organization to not yet take a decision on those patents that deal with essential biological processes in plants. The question whether inventions related to plants created by traditional plant breeding can be patented or not is currently under review in a number of cases with the Enlarged Board of Appeal of the European Patent Office. Also in individual member states in Europe changes are being made

or investigated with regards to the patent laws. For instance in Germany the German Patentgesetz has been changed in such a way that results obtained by traditional breeding (van der Wiel et al 2010) in plants and animals cannot be patented. In the Netherlands there is a breeder's exemption (in part due to lobbying by Plantum) with regards to patented plant matter, but before commercialization there has to be negotiated an agreement with the owner of the patent. However, the Netherlands is alone in this. Germany and France support a greater limitation of the patentability of plant related inventions. These examples clearly show that the field is moving.

The International Seed Federation (www.worldseed.org) in its statement "View on Intellectual Property" has made a clear case for the need for innovation and the need to be able to seek protection for these innovations in order to amongst others recapture development costs. They however also take a clear stand in view of the different international agreements with regards to plant biodiversity and the use of genetic resources and the right of people in general to have access to plants for food, clothing and housing [known respectively as the Convention for Biodiversity (CBD), The Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization and finally The International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA)].

A latest development is the one that has been arranged during the past few years between 11 major vegetable breeding companies in which they have set up in October 2014 a platform in which they will exchange the use of patents on vegetables (the International Licensing Platform (ILP)). Terms and conditions under which every party can get access to patents held by one of the members of the platform have still to be negotiated.

EPSO in consultation with leading public sector plant geneticists and breeders regards this issue as a serious and complex challenge for policymakers. Some breeding and agbiotech companies may wish to maximize their control over varieties they produce by not allowing another company to do crosses with varieties of the first company. This would hold back crop varietal improvement and it may create a barrier for breeders working in public institutions or those working for crop improvement in poorer countries. This is not in the public interest due to concern about food security.

In the opinion of EPSO it is necessary to preserve a model of innovation that allows "open source" access to public and private breeder's released and published germplasm, and to genetic resources and consider them as a common heritage while defending patents for specific inventions on genetic modification and breeder's rights on varieties as it has been done successfully by UPOV (International Union for the Protection of New Varieties of Plants) conventions (www.upov.int).

References

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- Plantum statement see: <http://www.plantum.nl/>
- http://www.worldseed.org/cms/medias/file/PositionPapers/OnIntellectualProperty/View_on_Intellectual_Property_2012.pdf
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Useful links

EPSO Working Group on Agricultural Technologies: www.epsoweb.org/agricultural-technologies-wogr

Statements drafted by this group and approved by the EPSO representatives are for instance:

- EPSO statement on Crop Genetic Improvement Technologies, 26.2.2015
- EPSO statement on Plant Breeders' rights and patent rights, 26.2.2015
- EPSO statement on GMO cultivation – national opt-out, 26.2.2015

EPSO statement on [Plant breeders' rights and patent rights](#), 8.6.2011

EPSO member institutes and universities: www.epsoweb.org/membership/members

EPSO representatives: www.epsoweb.org/membership/representatives

About EPSO

EPSO, the European Plant Science Organisation, is an independent academic organisation that represents more than 220 leading research institutes and universities from 31 countries in Europe and beyond. EPSO's mission is to improve the impact and visibility of plant science in Europe.

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