 ***STATEMENT***

European Plant Science Organisation

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**Plant breeders’ rights and patent rights**

**Brussels, 8 June 2011 – EPSO supports plant breeder’s rights and the right to breed for all commercial varieties, including transgenic varieties. With the advent of new technologies it became easier to derive a new and better variety in a shorter time frame from an existing variety but it also became common to apply for patents on cloned genes, methods and techniques. More and more patents are being applied for, even for varieties that carry patented information. This has led to conflicting opinions on this matter between organisations stating that patents should be freely available and companies with a strong patent portfolio that are against this viewpoint. However, for public interest, EPSO states it is necessary to preserve a model of innovation that allows an open access for public and private breeders to genetic resources and consider them as a common heritage while defending patent for specific inventions on genetic modification and breeder’s rights.**

In industry, patent rights are well established. They were initially set up to ensure that company secrets can be revealed yet protected, so that advancement and development could continue. In return for making knowledge public, the patent owner can prohibit others from using protected knowledge commercially. If others wish to use the protected methodology, techniques or materials, they have to obtain a license from the owner. The duration of this exclusive right is normally 20 years. This procedure works in most areas quite well. Cars, mobile phones and all kinds of electrical equipment contain patented technology but still everyone can buy TV sets, cars and mobile phones. In parallel with this, two systems of protection were developed for plant breeding. The Plant Patent Act was created in the USA in 1932 for vegetatively propagated crops except tuber propagated ones such as potato. In addition, the Utility Patent on Plants was created in 2001.

For plants and plant materials a *sui generis* system was created half way the 20th century because the normal (industrial/utility) patent system was inappropriate for protecting plant varieties, for two reasons:

1. Plant varietal material was not regarded as capable of meeting the requirements of novelty, inventive step and disclosure.
2. The public interest did not allow such an extensive monopoly over plant varieties (Llewellyn, 1997). In 1938 the global association of plant breeders (ASSINSEL) was founded and the Breeder’s rights system was set up under the UPOV-convention in 1961. It gives breeder’s rights to everyone who has bred a new variety. Under this convention, breeder’s rights can be requested and granted on any new variety if it adheres to the so-called DUS (Distinctness, Uniformity and Stability) rules. Furthermore, the new variety has to have a name and the breeding parents have to be known.

Within this right an exemption was granted (so called Breeders exemption, Art. 5 sub 3) which meant that one could make crosses with a protected variety from a competitor to breed a new and better variety. Free access to germplasm was the key element for this “open source” system of plant breeding (Ghijsen, 2009). The reason for this was also to ensure that the best varieties in food crops would be available to everyone to further improve them and create even better varieties. This won public support as part of a strategy to ensure that periods of hunger, such as those that occurred between the First and Second World War, would never occur again. This system worked well because in many crops the possibility to use a competitor’s variety in a breeding scheme still meant that it took many years before a new variety could be created that could compete with its parents, thus enabling sustained but not indefinite protection for any variety. In the revised UPOV-1991 the novel concept of “Essentially Derived Varieties” (EDV) was introduced in order to regulate breeder’s rights to improve existing varieties based on mutations, introgressions or genetic modifications.

However, with the advent of new technologies like molecular markers, induced mutations, doubled haploid line development, genetic modification etc., it became easier to derive a new and better variety in a shorter time frame from an existing variety. Furthermore, with the implementation of genetic modification and molecular markers it became common to apply also for patents, not on varieties since this is prohibited in many countries (except for the USA), but on cloned genes, methods and techniques. In the USA, it is common to both apply for a patent and breeder’s right. In Europe, this dual protection is not allowed. However, even in Europe, Japan and other countries, more and more patents are being applied for. This means that even varieties that carry patented information fall under the patent and thus do not fall under the breeder’s exemption, and so cannot be used for further variety development unless a license is obtained from the owner of the patent. This has led to the statement by Plantum (the Dutch organization for seeds and planting material) proclaiming that varieties with patents should be freely available for breeders in order to enable free access to GM-germplasm. This Plantum majority viewpoint is not accepted by all members of Plantum. Some of the larger (multinational) companies with a strong patent portfolio are against this viewpoint, and their organization Croplife has made a statement defending patents on plant varieties.

EPSO in consultation with leading public sector plant geneticists and breeders regards this issue as a serious and complex challenge for policymakers. While the major breeding and agbiotech companies wish to maximize their control over varieties they produce, it may not in be the public interest at a time of heightened concern about food security, anything that makes illegal for one company to be unable to make crosses with varieties from another company. Such a situation would hold back crop varietal improvement and it may put a barrier for breeders working in public institutions or those working for applications in poorer countries. We recommend that:

* the breeders exemption should be retained, even for varieties that contain transgenes
* nevertheless, patent protection on transgenes in varieties is a legitimate reward for creation of novel useful transgenic traits, so that breeders cannot use a competitor’s transgene in their varieties without agreeing a license fee and
* The academic exception for research recognized in European legislation reinforced

In the opinion of EPSO it is necessary to preserve a model of innovation that allows an open access to public and private breeders to genetic resources and consider them as a common heritage while defending patent for specific inventions on genetic modification and breeder’s rights as it has been done successfully by UPOV conventions.

 Open Source ‘Closed’ Source

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| Open Access | Linux Public domainBreeders exemption | Hybrid variety |
| ‘Closed’ Access | PatentsBreeder’s right | Company secrets: parental lines and own breeding materialSource code of Software |

Figure 1. Source and access diagram

**References**

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Plantum statement see <http://www.plantum.nl/>

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