

Who profits from Patents on plant related inventions: What intellectual property protection exists?

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IP on plant related inventions

The importance of IP

- The development of plant innovations:
 - Requires the investment of substantial time and resources: a GMO trait requires on average 136 million US and 13,1 years to develop;
 - Requires strong and effective IP (break-even point).
- Effective IP enables innovation, as well as the diffusion down the value chain of high quality products.
- Safeguarding the development of plant innovations, new varieties and traits, requires:
 - Effective plant breeder's rights; AND
 - Effective patent rights.
- Seed companies, tech developers and farmers are best suited by a balanced, all encompassing IP system.

Effective patents

- The need for patents:
 - Plant innovations consist of varieties and traits;
 - A patent can protect a trait, used in a multitude of plant varieties, plant breeder's rights cannot;
 - The process and the resulting trait in plant varieties containing the altered gene can be patented;
 - Modern plant breeding is largely dependent on biotechnology to develop more efficient and environmentally friendly varieties.
-> Inventions which comply with patentability criteria should be patentable;
- Stable and predictable patent framework for all biotechnological inventions under Directive 98/44 EC.
- Increased use of trade secrets could undermine the social contract.

Patents on native traits (1)

- Development of a native trait:
 - Native traits: traits obtained from a natural germplasm pool of species;
 - Most native traits cannot be used as such in commercial breeding;
 - Challenge is to identify a promising source of an (exotic) trait and then to transfer it to a modern variety (new techniques make the transfer as technical as genetic modification);
 - Identification and improvement of these traits requires a lot of resources;
 - A native trait cannot be protected through plant breeder's rights.
-> A native trait which complies with patentability criteria should be patentable.
- Between 95 and 13, EPO only granted 71 patents with a claim directed to a plant obtained by an essentially biological plant production process.

Patents on native traits (2)

- EBA Tomato II/Broccoli II decision 25 March 2015:
 - Exclusion of essentially biological processes does not have an effect on the allowability of the product claim;
 - The fact that the process features of a product by process claim define an essentially biological process, do not render the claim unallowable;
 - The fact that the only method for generating the subject matter is an essentially biological process, does not render the claim unallowable.
- >Products developed through essentially biological processes can themselves be patented when patentability criteria are met.

Balanced patent system

- No EU patents claiming individual plant varieties;
 - Plant related inventions are only patentable if they rigorously meet the patentability criteria;
 - Patents can only be used to prevent the unauthorised commercial use of the plants characterised by specific characteristics of patented processes;
 - Protection granted by patents cannot be extended without limitations down the value chain;
 - The seed industry is actively engaged in licensing.
- > Without an effective patent system, no reasonable break-even point;
- > Patents and plant breeder's rights are synergetic.