

Boerengroep Excursion to Monsanto, Wageningen, 21st June 2016. Report by Elske Hageraats (more info can be found on our website: http://www.boerengroep.nl/topics/seeds/)

On the 21st of June, Monsanto Wageningen opened their doors for Boerengroep and 30 participants for a tour and discussion. We are thankful to Monsanto Wageningen for this invitation and open discussion so that we can share knowledge and concerns from different view points. The employees of Monsanto Wageningen are disappointed about the negative image of the company and feel they wanted to openly discuss about it, and to show people that 'we are not evil'. They told us that they would like to show that all these negative stories going on about Monsanto are often false. Moreover, big challenges regarding patenting, for example, is – according to the employees – not a result of Monsanto's vision, rather it is created like that by society and politicians. Whether you can patent life, for example, is an interesting discussion they would like to start – but at this moment, it is allowed by law and thus Monsanto uses this legal opportunity as a way to earn back the money they invested in research and procedure of obtaining a patent. In short, it was a very interesting debate that brought us more together and raised questions on 'both sides' that make us think and reflect with a knowledgeable, open mind.

In Wageningen, Monsanto is breeding vegetables (so there is no genetic modification taking place here). Monsanto rents around 50-60 hectares from local farmers. The programs in Wageningen are: Breeding, Vegetable Breeding Technology, Greenhouse & Open Field, Plant health (phytopathology), Cell biology, e.g. developing double haploids, Foundation Seed (varieties need to be Distinct, Uniform and Stable) and IPR. Example of beans. Monsanto breeds for traits like yield, length, harvest ability, uniformity, colour, shelf life, disease resistance, concentration of pod set. One of the participants asked about nutrition. The answer was "No. Nutritional value we do not check for." *Here we see a point of discussion. Big multinationals are often breeding / selecting for traits that are favoured by the free market, but should nutrition not be the main focus? Note that according to Monsanto they are not checking for nutrition because they have "no reason that this would decline by their breeding techniques."*. Monsanto is working on:

- **Production of chemicals** (including glyphosate and in the past also war chemicals like 'Agent Orange')
- **Row crops**, like cotton, soy, corn, wheat. These crops are GMO (genetically modified organisms) and are mainly produced in the USA.

Vegetables. These are non-GMO. Protected varieties (by De Ruiter Seeds) and Open Field varieties, like onion, cauliflower, lettuce, spinach etc (by Seminis). Note: these are two of the many companies recently taken over by Monsanto, so Monsanto is selling products under these names.

Plant materials. Where does Monsanto get the plant materials from?

- Historic, e.g. seed libraries. Note that seed libraries are open to everyone as long as you use
 it for breeding or educational purpose. Wageningen Seed Commons also acquired seeds
 from the seed library in Wageningen
- **Competitors**. You are allowed to use material from 'competitors'.
- Expeditions. The Research Institute Centre of Genetic Resources, the Netherlands (CGN) in Wageningen focuses on 'conservation and use of vegetable crops, farm animal breeds and autochthonous forest species' (see their website of the Wageningen UR). CGN searches for new traits and shares this with all interested companies.

Intellectual Property Right (IPR)

Intellectual Property refers to creations of the intellect for which a monopoly is assigned to designated owners by law. IPR is believed to be needed for return of investment and to have the freedom to operate. "Quid pro quo" means that you get protection of your invention, but after those rights of protection expire, it has to be freely available for the public. The duration is dependent on the type of intellectual property. IP is divided as follow:

- 1. Permanent right
 - a. Trade mark (e.g. a logo)
 - b. Trade secret (e.g. a recipe)
- 2. Temporary right
 - a. Copyright (music, text, film, art etc)
 - b. **Patent Right:** genetic plant <u>trait</u> (all varieties with that trait!). *No one* is allowed to continue breeding plants containing this trait or even growing plants containing this trait that haven't been bought from the patent-holder.
 - c. **Breeders Right**: plant <u>variety</u>. Exclusive right to sell, produce and use the variety, but other breeders are allowed to use the variety in their breeding program.

Patent Right: the inventor gets the right of a plant trait. *ALL* varieties containing this trait will then fall under this Patent Right and thus 'owned' by the inventor who was granted this patent right. Inventor gets time-limited exclusive rights, meaning that *no one* is allowed to continue breeding plants containing this trait or even growing plants containing this trait that haven't been bought from the patent-holder. *Note of critique: one patented plant which accidentally ended up in a farmers field* (e.g. via the wind) gives the patent-holder the right to sue this farmer and demand a fine and clearance of the entire field (all the yield will be lost). Monsanto replied that – although this is correct – there are just a few court cases known. "It's a contract between 'society' and inventor. Note of critique: who is 'society'? E.g. under TTIP, corporations and governments are trying to push through a longer duration of patent right. This is done in secret and the people have nothing to say about this.

The answer of Monsanto was that it is 'society' because we – the people – have chosen our governments. Patent Right:

- 20 year time-limit from moment of application date. After this date, the invention has to be published so that everyone can access the information. *Note of critique: but who has the expensive technology, facilitations and knowledge to use this technology for society?*
- Patent right is not allowed for a plant variety or essential biological process by EU law. Note
 of critique: how are free trade agreements like TTIP affecting this? Note that plant varieties
 and essential biological processes are allowed to be patented by Patent Right in: Australia,
 Korea, Japan and USA.
- Key requirements are: it has to be novel, inventive and industrially applicable (agriculture is considered to be an industry). Note of critique: how can the patent office know all traits existing in crops over the entire world? Answer of Monsanto: "then breeders should just ask for a patent before we do.." -> but they don't have money and time for this / don't want to, because they think its unethical to patent life..
- Rights and rules are limited to a region (often a country). So if you patent a plant trait in one country, the other country can still create the a plant with that trait. But you cannot patent it anymore (key requirement 'novelty') or export it to the country where the patent is valid.
 Note of critique: this means only multinationals with a lot of money are able to afford a worldwide patent right on a trait.

Breeders Right. A breeder can claim breeders' rights for newly developed plant varieties, which gives exclusive rights to sell, produce and use the variety. Other breeders are allowed to use the variety in their breeding program. This is the big difference with a patent right, where *no one* else is allowed to use or grow plants with this patented trait. Breeders right:

- 20-25 years from grant
- Only plant variety (not a trait)
- Rights are limited to a region
- Flat upkeep (EU), no upkeep (USA)
- Key requirements: distinct, uniform, stable, novel.

Conclusions by Boerengroep:

We are very thankful that Monsanto Wageningen was so kind to open the doors for us and start to open up the discussion. We have seen the facilities, the green house and part of the laboratory, and had interactive discussions with the staff working there. We are very thankful for the employees of Monsanto Wageningen to have such a personal, open discussion together. We think it was enriching for all of us. We conclude with some points of concern:

A patent right results in the situation that no one is allowed to continue breeding plants
containing this trait or even growing plants containing this trait that haven't been bought
from the patent-holder. Note the case of the Bolster who have bred from broccoli variety

with a long stem. This was then patented by Monsanto and the Bolster couldn't grow their own variety anymore. In this way, Monsanto is a **danger for food sovereignty** where people have to right to grow their own food. We think it is important to secure biodiversity. Moreover we should ask the question if it is possible that a patent office can know all possible traits existing in the entire world?

- Gaining more and more monopoly by buying other seed and breeding companies, as well as
 making it difficult for small breeders, peasants and indigenous peoples to continue using
 their own varieties, people are getting concerned about rapid decline of genetic resources
 ('genetic erosion'). Note that companies like Monsanto are breeding for specific traits,
 favoured by the free market industry, and not per se nutritional value or safe guarding
 biodiversity.
- Is it ethical to **patent life**? Plants have evolved over millions of years, varieties have been bred by peasants for hundreds, sometimes thousands of years. When you would take a bit of DNA and genetically modify it, can you then become an owner of this trait by only having rearranged it?
- How are free trade agreements like TTIP going to influence legislation regarding GMO (labelling, use, patents and patent duration etc.)?
- Monsanto is involved with the research (and thus research outcomes / knowledge creation)
 and regulations of their own products, which raises concern with many people regarding
 reliability of the outcome.
- Monsanto opposes GM food labelling. Although claimed to be a false statement in the <u>folder</u> Monsanto: Myths and Facts, they claim in that same folder that they do "oppose mandatory labelling of products with GM ingredients in the absence of any demonstrated risks." We think that consumers have the full right to know what is in their food and that they can decide themselves what they consider safe to consume.

