GREENPEACE

Chausseestr. 131
10115 Berlin - Germany
Telephone +49-30-308899-14
Fax +49-30-308899-30
ge@diala.greenpeace.org
http://www.greenpeace.org/~geneng

International Genetic Engineering Campaign

Background Information **06/01**

June 25-30, 2001 FAO Conference on the "International Undertaking" in Rome, Italy

Stop Biopiracy and Tricky Patents

DuPont : World-wide leader in biopiracy of plant genetic resources

The rate of species and variety loss has increased alarmingly during our century, and not only in the wild. More than 75% of crop and vegetable varieties have been lost from farmers' fields in the past century, with losses increasing at 2% per year.

From the moment Intellectual Property Rights (IPRs) and law have been extended to include forms of life, private companies and research institutes have been allowed to patent, own and control life forms and their building-blocs, genes.

This has led to 'biopiracy', what many developing countries see as the theft of their genetic resources by private companies from rich countries operating on the profit motive. Biopiracy is now one of the most contentious issues related to development and to the environment.

The International Undertaking now being discussed in Rome must become an important countervailing force to the above-mentioned trends.

Mostly because intellectual property rights in this area are governed by (Article 27.3(b) of) the World Trade Organisation's agreement on Trade Related Aspects of Intellectual Property (TRIPS), the world trade system is now in fundamental conflict with the aims of protecting the environment and ensuring food security.

Loss of agricultural biodiversity and the private ownership and control of plant genetic resources have been given new impetus by the advent of **genetic engineering**. The genetic engineering of plants is currently a private science being developed and controlled by profit-making multinational companies which also own the handful of seed companies that control most of the world's commercial seed varieties.

In the past ten years agrochemical and genetic engineering multinationals like DuPont, Monsanto and Syngenta (formerly Novartis) bought nearly all the biggest international seed companies and became themselves the leading seed brokers globally.

For these agrochemical giants, seed and food patentability is a key instrument, which helped starting an international rush to plunder biodiversity to control world food production. Patents and company clusters already cover the whole range of food and feed production, from farmers to consumers.

GREENPEACE

Chausseestr. 131
10115 Berlin - Germany
Telephone +49-30-308899-14
Fax +49-30-308899-30
ge@diala.greenpeace.org
http://www.greenpeace.org/~geneng

International Genetic Engineering Campaign

Background Information **06/01**

Tricky patent applications

As soon as genetic resources, seeds and plants get analysed or somehow changed, companies claim the plant varieties, their seeds and the harvests as their intellectual property.

Patents take plant genetic resources out of the public domain and define them as private property. Increasingly so, only plants which are of special commercial interest for the big multinationals are being bred actively. More and more varieties will get lost or just kept in private gene banks of companies with exclusive rights to access.
If the free flow of breeding material such as seed gets interrupted, the poorest will suffer most. Small farmers and breeders are the backbone of world food security in developing countries.

DuPont and Pioneer Hi-Bred (the world's largest seed company, bought by DuPont in 1999) already filed some 150 patent applications at the European Patent Office. Most of them are "World Patent Applications" which means they are filed in the USA, Japan and many other countries at the same time.

DuPont´s patented "inventions"

A case uncovered by Greenpeace and the catholic organisation Misereor in May 2001 illustrates the consequences of multinational companies such as DuPont abusing patent law.
In August 2000 the European Patent Office accepted a patent application from DuPont which covers all maize plants containing more than a certain amount of oil and oleic acid [patent EP 744 888].[1] The patent covers any variety of maize with specific oil contents. Claims are also made on any use of these maize varieties, i.e. planting, cultivating, harvesting and processing for food and feed purposes or industrial uses. If the patent was upheld in its present form it would mean DuPont would have a monopoly on a whole range of maize varieties.

DuPont claims that the basis for the patent, which like any other patent should be based on an "invention" – is that "this invention relates to corn grain having a significantly higher oleic acid content by virtue of heritable genes for increased oil and oleic acid content [and] to the production of high oil high oleic grain, plants and plant parts grown from such grain and uses of such improved grain."
The company marks out a very broad area and tries to ensure it also has legal claims on maize plants (and their future use) which may already exist without yet being known.

Not an invention
Research revealed that natural varieties of maize with high proportions of oil and oleic acid already exist and can be produced by conventional methods of cultivation.
Research institutes have already grown such maize. In Central and South America, where a huge diversity of maize varieties exists, maize crops play a central role in the economy

[1] The full text of the patent can be downloaded at: http://www.greenpeace.de/Intl-patents/patents.htm

Chausseestr. 131
10115 Berlin - Germany
Telephone +49-30-308899-14
Fax +49-30-308899-30
ge@diala.greenpeace.org
http://www.greenpeace.org/~geneng

and the population's food supply. There are clear signs that maize varieties with the characteristics mentioned by DuPont exist and have been used for a long time.
For farmers cultivating high-oil, high-oleic grain maize, this patent could mean for instance they would be obliged to buy new seeds and pay royalties each harvest. The patent would also have a big impact on food producers.

Impeding public research
According to the Mexico-based International Maize and Wheat Improvement Center - better known as "CIMMYT," its acronym in Spanish- this patent may considerably impede the development of maize varieties in Latin America.
CIMMYT, which strives to provide agricultural solutions to developing countries through its research on maize and wheat, says that one important international research project -- which helps the cultivation of maize varieties with a view to improving their oil content-- would clearly be affected by the patent. Dr Suketoshi Taba, head of CIMMYT's Maize Germoplasm Bank wrote in a May 01 letter to Misereor that DuPont's "[..] patent application […] can seriously discourage further research on maize oil content if it is not challenged [..]"

The above-mentioned patent application case is just one example of the **systematic strategy** the industry is following in order to get control over the most important food crops. Dupont and Pioneer filed many more patent applications based on fake "inventions", for instance:
- Describing special plant ingredients (like protein or oil) and claiming all genetic resources with these characteristics
- Changing some details in hybrid breeding processes and claiming all resulting seeds and plants
- Using cell culture techniques to reproduce plant genetic material and claiming all genetic resources with given characteristics
- Isolating genes in genome databanks and claiming gene sequences as their inventions
- Transferring foreign genes into existing varieties, and claiming all plants and seeds with the inserted genes

Multinationals such as DuPont, under the slogan of 'feeding the world', have a natural interest both in owning and exploiting plant genetic material, mostly derived from developing countries, and in replacing farmers' own local varieties with few patented crops -- and their often associated inputs.

The International Undertaking now being discussed in Rome must become an important countervailing force to this kind of abuses.

Greenpeace demands :

- STOP the sellout of biological diversity
- STOP intellectual property rights which restrict access to plant genetic resources
- STOP patents on seeds, plants and gene sequences
- CREATE a legally binding framework for fair sharing of benefits arising from the use of crop plants, in connection with international programmes for the conservation of genetic resources in poor countries.