Pesticide Action Network Europe

*"We are visitors on this planet.*
*We are here for one hundred years at the very most.*
*During that period we must try to do something good, something useful, with our lives."*

*— H. H. The 14th Dalai Lama*

# Is the Pesticide Industry really serious about their slogan?
## *Time to Change: Accepting the challenge.*

**1. Pesticides Sales is a big business (***www.gmwatch.org***):**
- The top 10 companies control 89% of the global agrochemical market.
- The world's six largest agrochemical manufacturers, who control nearly 75% of the global pesticide market, are also seed industry giants.

**World's Top 10 Pesticide Firms**
Company - Agrochemical Sales 2007 (US$ millions) - % Market Share

| |
|---|
| 1. Bayer (Germany) - $7,458m - 19% |
| 2. Syngenta (Switzerland) - $7,285m - 19% |
| 3. BASF (Germany) - $4,297m - 11% |
| 4. Dow AgroSciences (USA) - $3,779m - 10% |
| 5. Monsanto (USA) - $3,599m - 9% |
| 6. DuPont (USA) - $2,369m - 6% |
| 7. Makhteshim Again (Israel) - $1,895m - 5% |
| 8. Nufarm (Australia) - $1,470m - 4% |
| 9. Sumitomo Chemical (Japan) - $1,209m - 3% |
| 10. Arysta Lifescience (Japan) - $1,035m - 3% |
| **Total $34,396m - 89%** |

*Source: Agrow World Crop Protection News, August 2008*

- **Bayer:** the world's biggest agrochemical company is also the world's seventh biggest seeds company.
- **Syngenta:** the world's second largest agrochemical company is also the world's third largest seeds company.
- **Monsanto**: the world's biggest seeds company is the world's fifth largest agrochemical company.
- **DuPont:** the world's second biggest seeds company is also the world's sixth largest agrochemical company.

- The worldwide market for agrochemicals was US$38.6 billion in 2007 - up 8.4% over the previous year. The top 6 companies accounted for $28.8 billion, or 75% of the total market.

- The worldwide market for agrochemicals grew in 2011 by nearly 10%.

- Weed killers account for about one-third of the global pesticide market, and agrochemical giants are racketing up R&D on new herbicides and herbicide-tolerant genes.

**1.2 Sale of chemicals in Europe is also big business:**

- 2009 Bayer posted sales of EUR 12.9 billion on the European market (*http://www.bayer.com/en/europe.aspx*).
- Bayer´s pesticide sales amounted to 5.5 billion Euros in 2010 (*http://www.cbgnetwork.org/2821.html*).

## 2.Public vs. Private Research

"The Big six: BASF, Bayer, Syngenta, Dupont, Dow and Monsanto spent together in 2006, 3.62 billion USD on research and development of our 9.02 billion USD spent by all big 446 companies including the big six (Piesse and Thirtle, 2010).

The top five countries in terms of agricultural R&D expenditures are the US, Japan, China, India and Brazil (Beintema and Eliot, 2009).

Considering the less developed countries, 90% of agricultural R&D is public, while in most industrialised countries private expenditures on agricultural R&D are much larger than public, completed by the increasing concentration of R&D in a small number of multinational companies; the effects of which are not yet studied and thus remain unclear (Gijsberg, 2009)" *Extract of the SCAR 3rd Foresight report*[1]*, pg. 103,* (*http://ec.europa.eu/research/agriculture/scar/pdf/scar_feg3_final_report_01_02_2011.pdf*)

Most Developed Countries research is now private, while over 90 per cent of LDC R&D is public, as shown below.

**Estimated global public & private agricultural R&D, *ca.* 2000.**

| | **Expenditures, in 2000 international million Us$** | | | **Share %** | |
|---|---|---|---|---|---|
| **Region** | **Public** | **Private** | **Total** | **Public** | **private** |
| LDCs | 12 819 | 862 | 13 682 | 93.7 | 6.3 |
| DCs | 10 191 | 12 086 | 22 277 | 45.7 | 54.3 |
| total | 23 010 | 12 948 | 35 958 | 64.0 | 36.0 |

Twenty years ago universities and public laboratories in the DCs did all the basic and strategic research and this created a global commons of intellectual property. Now Monsanto and Syngenta lead and the Consultative Group on International Agricultural Research (CGIAR) and the rest of the international public systems tend to follow

[1] European Commission – Standing Committee on Agricultural Research (SCAR), The 3rd SCAR Foresight Exercise (2011) *Sustainable food consumption and production in a resource-constrained world.*

Private sector Firms and R&D expenditures by type of activity.

| | **Number of companies** | **Agricultural R&D in 2006 (billion US$)** |
|---|---|---|
| Agricultural chemical-seed-biotechnology companies | 'big 6' | 2.03 + 1.57 (chemicals + seed & biotechnology) |
| Other agricultural chemicals | 122 | 0.62 |
| Other seed | 82 | 0.63 |
| Other agriculture biotech | 45 | 0.17 |
| Farm machinery | 35 | 1.21 |
| Animal health | 118 | 1.58 |
| Animal and aquaculture genetics | 61 | 0.26 |
| Fertilizer | — | 0.45 |
| Animal feed | — | 0.5 |
| Total | 446 | 9.02 |

Source: *rstb.royalsocietypublishing.org/content/365/1554/3035.full*

## 3.The pesticide treadmill

The "pesticide treadmill", it's a classic case of chasing a new techno-fix to mop up the mess of an older, failed technology.

Agrochemical giants describe the resistance problem as a business opportunity: In the words of Syngenta's Crop Science CEO, John Atkin: "Resistance is actually quite healthy for our market, because we have to innovate."

We live in a global reality, we need to feed hungry people and increase productivity, there is a need to cut red tape (less regulation), a need to introduce more technology, and as "sustainability" is important; it that will be reached by giving more room to nature by increasing productivity in the field. Drive in the food chain seems to be supply side driven (SCAR 3rd foresight study) and the purpose seems to be keeping farmers dependent on external inputs, and focused on short term solutions.

**Example** – Round table debate organised by Europabio on:

*What role can modern crop technologies play in a sustainable Common Agricultural Policy?*

The debate on CAP reform has predominantly focused on budgetary issues, yet the common policy post 2013 aims to not only create a more competitive, but also a more sustainable European agriculture, that is able to respond to new economic, social, environmental, climate-related and technological challenges.

Will a shift of financial resources suffice to reach that goal, or will the future CAP have to better integrate and promote the use of modern crop technologies? Many technical terms have been floating in the debate, ranging from agronomy to plant physiology, pathology and general botany, soil science, environmental microbiology, weed science, entomology, and biotech.

Which technologies actually have a realistic potential to support a European agriculture that is both more productive and more sustainable? Which mix of technologies needs to be applied? And what can, should, and will the European Commission do to support the process

## 4. Influencing the EU debate

### 4.1 By doing advocacy in Brussels:

Bayer, BASF, Dow chemicals, Du Pont, Monsanto, Syngenta, all have **offices in Brussels** (*http://www.europeanagenda.eu/_files/booklet/EA_booklet_07_2007.pdf*)

In addition, they are all members of the **European Crop Protection Association (***http://www.ecpa.eu/***)**, which is a Brussels based office consisting of 17 staff members, a board and members, directly from corporate member companies, and members of chemical companies national federations.

And the same companies are also all members of **Europa bio (***http://www.europabio.org/***)**, which is a Brussels based office consisting of 16 staff people, and a board, having, beyond national members, 64 corporate members, including Bayer, Syngenta, BASF, Dow Agro Science, Monsanto and DuPont de Nemours.

Also, BASF, Bayer CropScience, Dow AgroSciences, DuPont, FMC, Monsanto, Sumitomo, and Syngenta are members of the Brussels based office of **CropLife International A.I.S.B.L.** (*http://www.croplife.org/*) working on crop protection and biotechnology, hiring around 20 employee.

### 4.2 Cooperation with other EU actors– example of Syngenta:

**ELO/Rise foundation :** Syngenta and European Land Owners association (ELO) organise each year a join conference, with high level speakers and around 1000 attendants, on hot topics. Beyond that, Syngenta is one of the biggest financial contributors to the RISE Foundation, having donated 1 million Euros (http://www.corporateeurope.org/not-industry-event).

**OPERA :** They sell themselves as being: “a young, growing independent research centre and think tank of the Università Cattolica del Sacro Cuore providing simple pragmatic solutions to support EU and national decision making. We bridge science and policy through a transparent platform to debate the right approaches for sustainable, intensive agriculture.”

Though the activities that this University is doing, is, among others financed by Syngenta, Dox Agrascience, DuPont, BASF, Bayer, and Monsanto, and especially with AEIFORIA (see http://convegni.unicatt.it/meetings_3475.html).

In this context, finds place the proposal of the EU Directive on the sustainable use of PPPs. To this purpose, are already foreseen specific measures that give incentives to an agriculture with a low input of PPPs in the context of the agricultural community policy (PAC) and, in particular, in the context of Reg. (CE) n. 1698/2005, on support to rural development. Measures like the implementation of buffer zones, the realization of eco-engineering works, the correct use of the integrated crop protection management, the certification of equipment, the use of water depuration plants, the aware management and safe application of chemical substances (included the adoption of self-protective equipment) have to be implemented case by case depending from the needs and opportunities. In this field AEIFORIA is reach of competence, but it is also able to provide to larger scale needs together with the spin-off *HORTA* and *AGRICOLTURA RESPONSABILE* (Responsible Agriculture) of **Syngenta**.