

Pesticide Industry IPM Investments

USDA National IPM Symposium

About the Pesticide Industry

- Global Market Size is \$35.4 B
- Non crop global sales are about \$4 B
- Top 10 companies sales are \$30.3 B
 - Range in size from \$7 B to \$700 M
- US is a static market
- Growth markets are Asia and South America
 - \$670 M fungicides sold in South America in 2004 up from \$130 M in 2002

CropLife is a FAO Signatory on the Code of Conduct for Pesticide Distribution

- **Integrated Pest Management (IPM)** means the careful consideration of all available pest control techniques and subsequent integration of appropriate measures that discourage the development of pest populations and keep pesticides and other interventions to levels that are economically justified and reduce or minimize risks to human health and the environment. IPM emphasizes the growth of a healthy crop with the least possible disruption to agro-ecosystems and encourages natural pest control mechanisms.

Figure 3.2: Research goals for a new crop protection product

Biologically efficient:

- high selectivity
- fast impact
- optimal residual effect
- good plant tolerance
- low risk of resistance development

User friendly:

- low acute toxicity
- low chronic toxicity
- good formulation characteristics
- safe packaging
- easy application method
- long store stability

Environmentally sound:

- low toxicity for non-target organisms
- fast degradation in the environment
- low mobility in soil
- no relevant residues in food and fodder
- low application rate

**The
“perfect”
product**

Economically viable:

- good cost/profit ratio for the farmer
- broad use
- applicability in Integrated Crop + Pest Management
- innovative product characteristics
- competitive
- patentable

2005 Agrochemical R & D

Investments

Source:

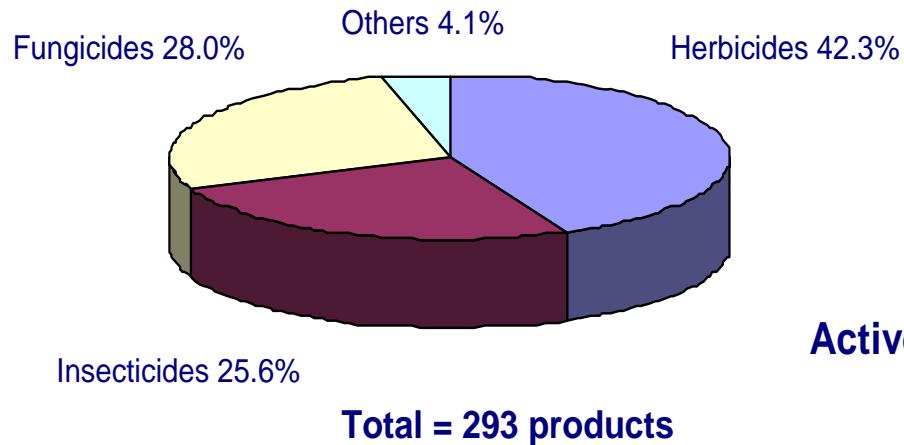
Phillips McDougall
Vineyard Business Centre
Saughland
Pathhead
Midlothian
EH37 5XP
Tel : 01875 320611
phillipsmcdougall@dial.pipex.com

A New Pesticide

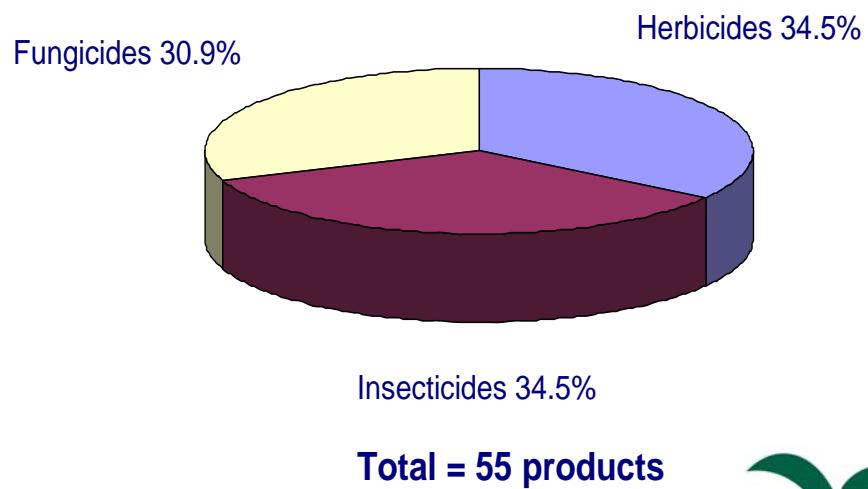
- Takes 8 to 9 years from discovery to registration
- Approximately \$180 – \$220 million to develop
 - 30% of the cost is on researching environmental fate and impacts.
 - 35% on biological research
 - 35% on developing formulation and production capability
- 10 CLA members spend \$2.2 Billion on research and development or about 10% of their total expense

Product introductions and R&D by Sector

Active Ingredients Introduced Since 1980 by Sector



Active Ingredients in R&D by Sector 2003



Product Introductions and R&D by Crop

Number of new Active Ingredients		Time period		
		1980/89	1990/1999	2000/2003
Herbicides	Cereals	15	12	6
	Soybean	11	10	1
	Maize	2	10	2
	Rice	11	19	5
	F&V	2	1	0
	Other	10	5	2
Total		51	57	16
				19
Insecticides	F&V	11	16	5
	Rice	5	2	3
	Cotton	9	12	1
	Others	4	7	0
	Total	29	37	9
				18
Fungicides	F&V	13	8	8
	Cereals	14	16	4
	Rice	9	5	5
	Others	0	0	0
	Total	36	29	17
				17
Others		7	3	2
Total		123	126	44
Average annual rate of introduction		12.3	12.6	11
				**11

IPM Training is a Global Activity

- CropLife member companies promote IPM through the network of regional and national organizations
- Partnerships with governments and NGOs are key to IPM training activities
- CropLife believes that safe use and IPM training are very synergistic
- CropLife member companies provide a matching grant program of \$2 M each year to Latin America, Asia, and Africa national associations

Summary

- New pesticide products represent a \$200 million investment
 - New products are compatible with FAO IPM definition
- Each year CLA member companies spend \$2.2 billion on research
- New a.i.'s for corn, soybean, and cotton will be slow in coming
- IPM training partnerships are the key to training billions of farmers