

Representing the Plant Science Industry

CropLife Declaration of plant science Industry policy on IPM

CropLife member companies and associations support the aims of sustainable agriculture: to produce sufficient affordable food and fibre, economically and in an environmentally and socially sensitive manner, maintaining the natural resource base for future generations.

We are committed to Integrated Pest Management (IPM) as defined by the FAO International Code of Conduct on the Distribution and Use of Pesticides, as an economically viable, environmentally sound and socially acceptable approach to crop protection.

It is the mission of the CropLife member companies and associations to provide customers with safe and effective technologies to protect against adverse effects caused by weeds, diseases and pests.

We enable and encourage the implementation of IPM by developing and selling appropriate products, techniques and services.

We cooperate with partners to develop and test IPM strategies and programmes, as well as providing education and training on the sustainable use of our products.

We measure and communicate progress within our industry on the adoption of the principles and values of this declaration.

The plant science industry's commitment to the promotion and implementation of IPM is described in a CropLife publication entitled "Integrated Pest Management: The way forward for the Plant Science Industry," as well as the numerous activities described in publications and the websites of CropLife International's member associations and leading companies.



CropLife International

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For more information on Integrated Pest Management visit CropLife International's website or contact Keith@croplife.org

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Integrated Pest Management

The way forward for the plant science industry

The plant science industry provides products and services to support sustainable agriculture. Among these are the development and provision of crop protection products for the control of pests, weeds and diseases, as well as plant varieties – bred traditionally or developed through biotechnology – that are resistant to pest attack, or possess traits that facilitate pest control.

These products are most effectively employed as one or more tools within an IPM strategy. The industry works in partnership with others to promote a thorough understanding of IPM principles and practices. When its products are needed, it promotes their effective and responsible use.

What is IPM?

The United Nation's Food and Agricultural Organisation (FAO) International Code of Conduct on the Distribution and Use of Pesticides defines IPM as: "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 minimise risks to human health and the environment. IPM emphasises the growth of a healthy crop with the least possible disruption to agro-ecosystems and encourages natural pest control mechanisms." All member governments of FAO, as well as participating intergovernmental organisations, non-governmental organisations and the plant science industry support this definition.

Implementation of IPM ultimately rests with the farmer and others trying to control pests. They will adopt and exploit those elements of IPM which they see as practical, add value to their activities and are readily available and affordable.

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Prevention, observation, intervention: the core steps of IPM

IPM strategies consist of three basic components:

• Prevention of pest build-of through good crop cultivation

- Observation of the crop to monitor pest and weed levels, as well as the levels of natural control
- mechanisms, such a beneficial insects, in order to make the correct decision on the need for
- control measures
 Intervention where control measures are needed.



Technologies Technologies and services required for a IPM implementation

services

Successful IPM must be based on farmers' needs, concerns and circumstances. A wide range of products and services are required by farmers in order to adopt IPM, calling for close interaction between them and the scientists or experts developing IPM technologies, practices and strategies.

IPM starts with the growing of a healthy crop through appropriate cultivation practices. The crop is managed to minimise pest attack. When required the best combination of pest control measures are used, employing cultural, mechanical, biological, biotechnological or chemical means. The ultimate goal is to provide the most cost effective, environmentally



sound and socially acceptable method of managing diseases, insects, weeds and other pests according to local conditions. This requires not only availability and transfer of technology and practices – both indigenous and new - but also provision of appropriate information, education and training.

Sustainable Development

Sustainable Agriculture

Integrated Crop Management (ICM)

Integrated Pest Management (IPM)

Technologies and services

Basic Components

Prevention Location

- Crop rotation
- Cropping pattern
- Seed selection
- Seed selection
 Crop husbandry and hygiene
- Fertilisation
- Irrigation
- Habitat management
- Inter-cropping
- Harvesting and storage
- Tillage practice

Observation

- Crop monitoring
- Decision support systems
- Area-wide management

Interventio

- Cultural and physical control
- Biological control
- Chemical control

Research and Development

- Low-dose productsSelective action
- IPM positioning of broad spectrum products
- Safety to people and the environment
- Resistance management
- Need directed optimum use recommendations
- Application technology
- Biopesticides

Crop variety selection

 Improved varieties with disease and pest resistance through genetic engineering and traditional breeding

Disease control

- Fungicide technology
- Diagnostics

nsect contro

- Insecticide technology
- Pheromones
- New modes of actionBand treatment

Veed control

- Herbicide technology
- Band treatment
- Weed control in conservation areas

Erosion contro

- Conservation tillage techniques: direct drilling, no-till, minimum tillage
- Cover crop management

IPM Implementation

Education and training

- Staff including company, government, distributors and retailers
- Universities, colleges and schools
- Users: plantations, food processing companies, commercial growers and smallholders
- Topics include: pest and beneficial recognition, appropriate IPM strategies, product knowledge, product safety

Multi-stakeholder partnerships

- Corporate sector
- Public sector
- Scientific community

echnology transfer and capacity uilding

- Farmers
- Government research and extension
- Non-government organisations
- Industry

The role of the plant science industry in developing IPM strategies

The plant science industry provides access to a wide range of appropriate technologies, services and products, as well as optimal strategies for their use according to IPM principles. Development and adoption of appropriate IPM strategies also requires mutual support and collaboration from government and non-government organisations (NGOs), international research organisations, distributors, dealers and retailers, and farmers themselves.

Ultimately it is the farmer that has the responsibility to make the appropriate pest management decision. Long-term and sustainable adoption of IPM by farmers will only occur if the information and knowledge of the principles and technology are available to them. CropLife International's member associations and leading companies are actively engaged in training and capacity-building programmes across the world, which provide practical ways to implement IPM. The industry's commitment to IPM was highlighted through the publication of a declaration of support for IPM in 1996. However, the industry has been actively involved in promoting IPM for many years prior to this.

Some examples are:

- Strategy development and promotion of IPM in cotton in Brazil since the 1970s, for control of major insect and mite pests
- Development of IPM strategies for pest control in French beans in Kenya destined for the export market
- Promotion of IPM, as part of an Integrated Crop Management strategy, in the UK to preserve habitats and wildlife
- Reducing excessive use of crop protection products in vegetables in the Dominican Republic and in chilli in Sri Lanka, through introduction of IPM concepts and better targeted application of products.