



# Stewardship: Strategy, Activities & Impact

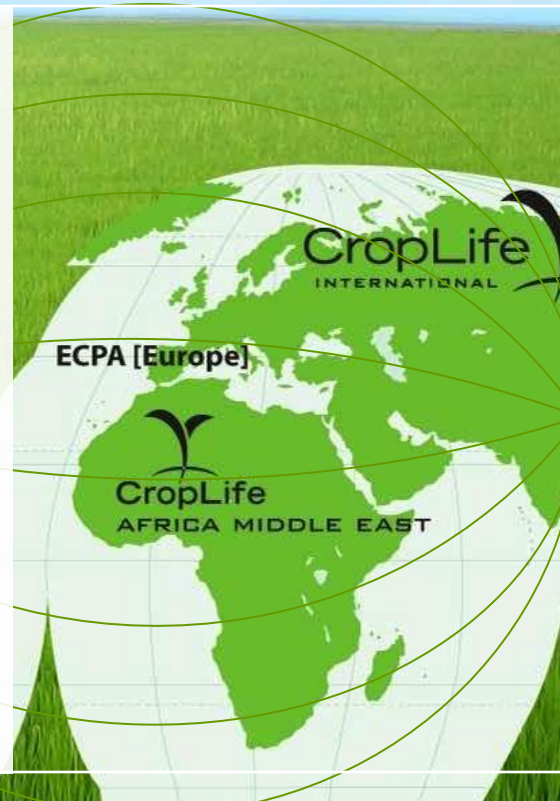
**Keith Jones, Director, Stewardship & Sustainable Agriculture**



# A Global Federation representing the Plant Science Industry in 91 countries

## Associations

- AfricaBio
- AgroBIO Mexico
- AgroBio Brazil
- BIO Production Agriculture Assoc
- CIB
- CBI Japan
- EuropaBio
- CropLife Africa Middle East
- CropLife America
- CropLife Asia
- CropLife Latin America
- European Crop Protection Assoc
- Japan Crop Protection Assoc
- CropLife Canada
- Israel Crop Protection Assoc



## Companies

- BASF
- Bayer CropScience
- Dow AgroSciences
- Dupont
- FMC
- Monsanto
- Sumitomo
- Syngenta

CropLife  
ASIA

Advocates the important role crop protection and plant biotechnology play in sustainable agriculture

# CropLife International Stewardship

## General Assembly

**CP Associations**

**Plant science Co's**

**Biotech Associations**

**Board of Directors**

**Crop Protection  
Strategy Council**

**Plant Biotech  
Strategy Council**

**Committees &  
Projects Teams**

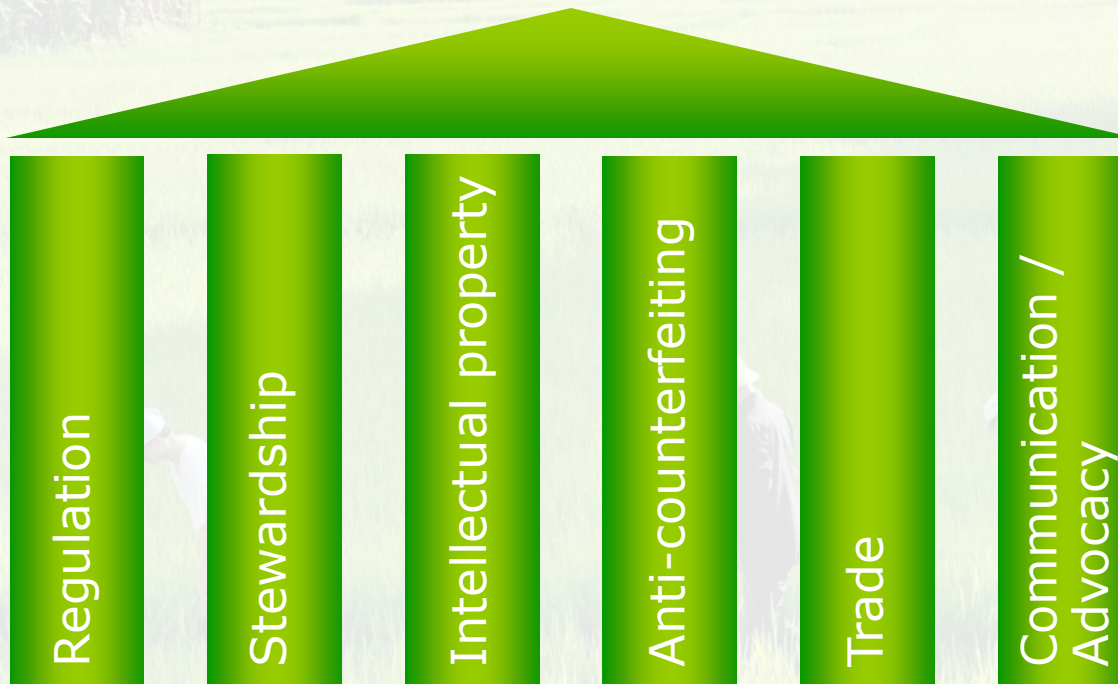
**Committees &  
Projects Teams**

**Network  
Crop Protection  
associations**

**Network  
Plant Biotech  
associations**



# Crop Protection: Priority Focus Areas

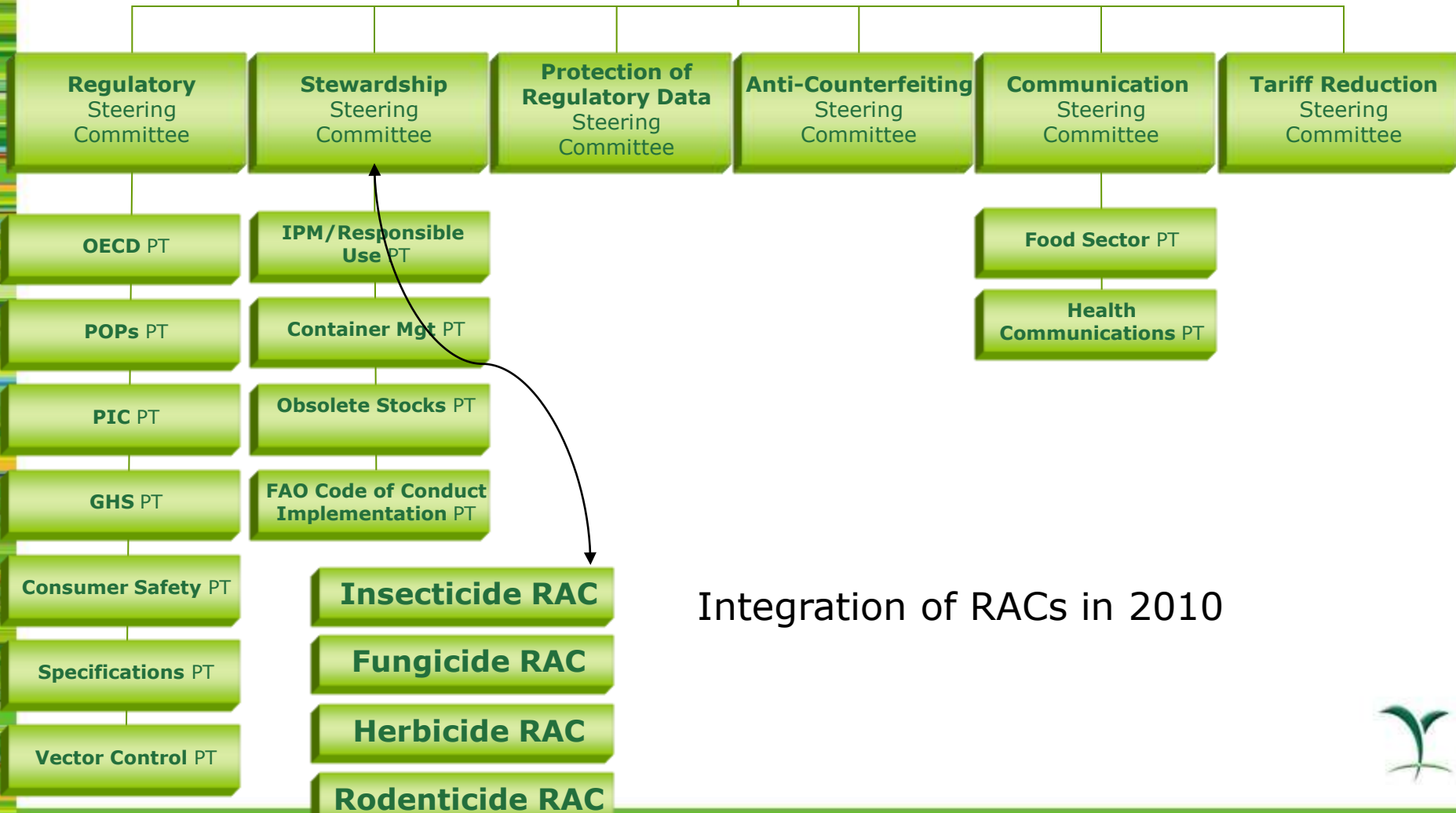


Working together for Sustainable Agriculture.

# Crop Protection Structure



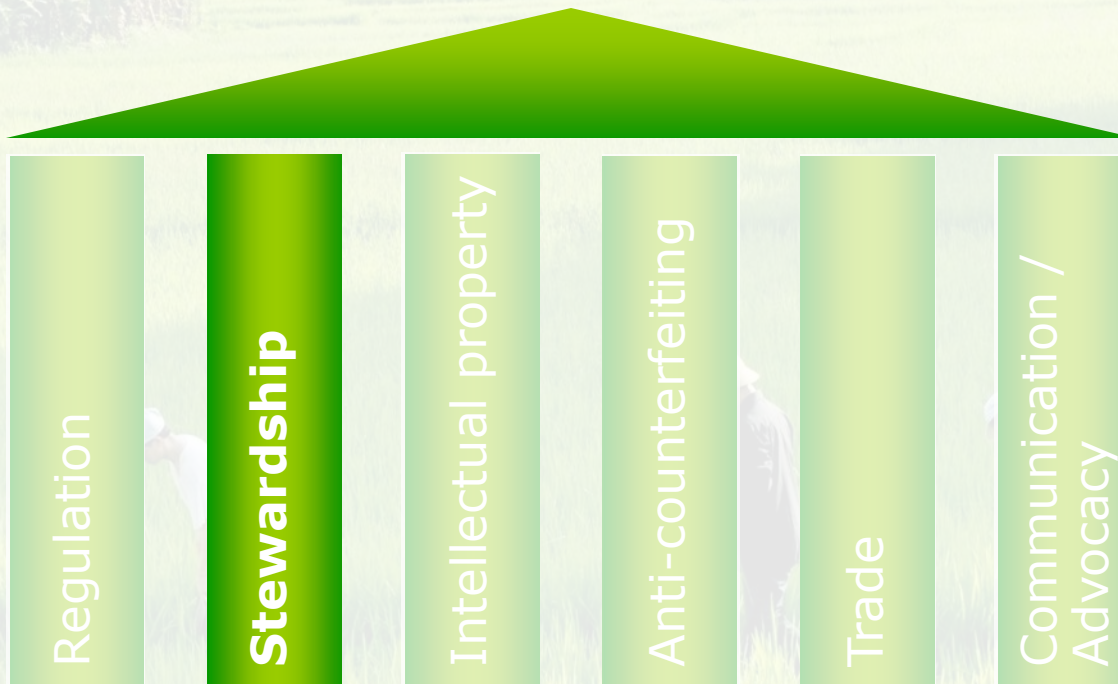
## Crop Protection Strategy Council



Integration of RACs in 2010



# Priority Focus Areas



Working together for Sustainable Agriculture.

## Why Stewardship?

- Stewardship of crop protection and plant biotechnology products supports sustainable agriculture.
- Stewardship is an essential part of sustainable business.
- Stewardship is a core element of the CropLife International's member companies and associations business strategy.

Maximizes Benefits, Minimizes Risk



# Stewardship – a life-cycle approach

## For Crop Protection Products...



‘The responsible and ethical management of a crop protection product throughout its life cycle’

# Stewardship – a life-cycle approach



## ...and for Biotech / Seeds.



‘The responsible and ethical management of a plant biotechnology product throughout its life cycle’

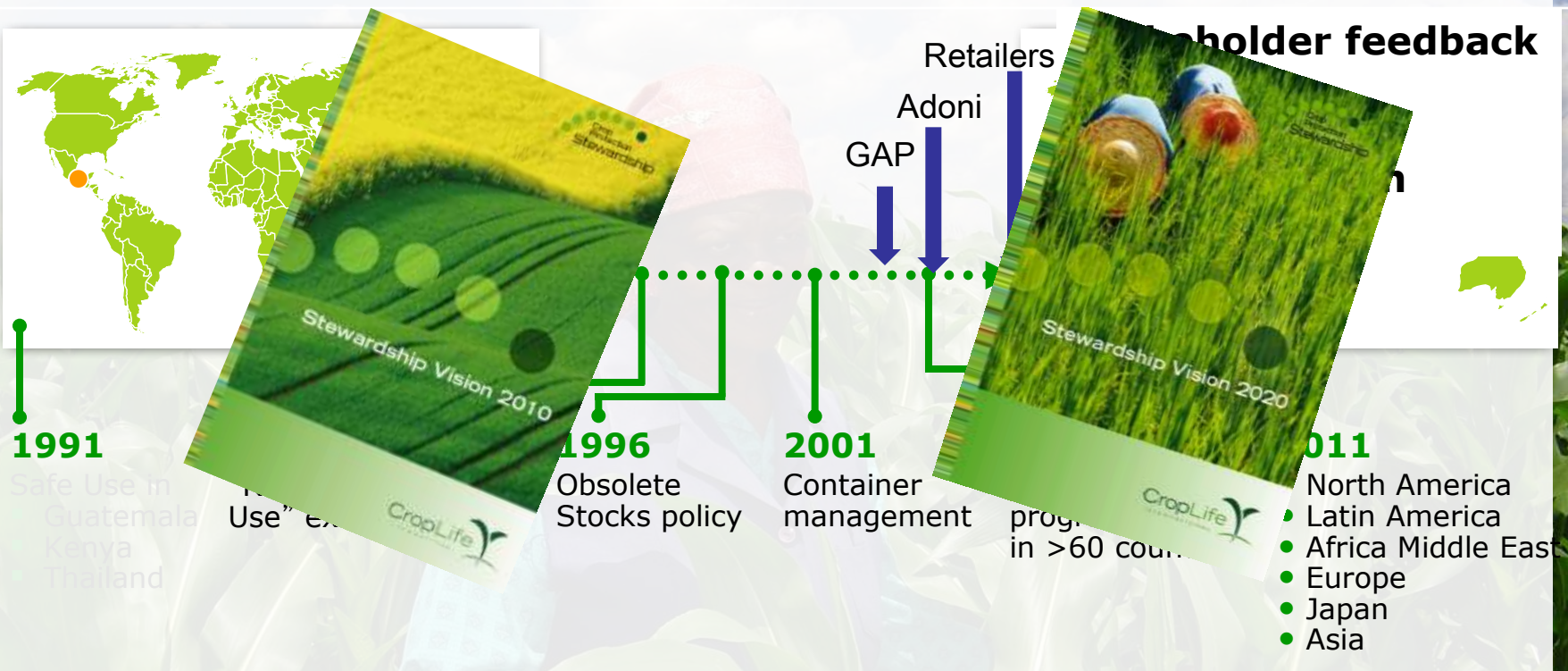
# Stewardship Focus

## For Crop Protection Products...



The Association Focuses on Stewardship at the Field Level, Including proper management of waste

# Crop Protection Stewardship Journey



CropLife International has promoted stewardship  
across the world for more than 20 years

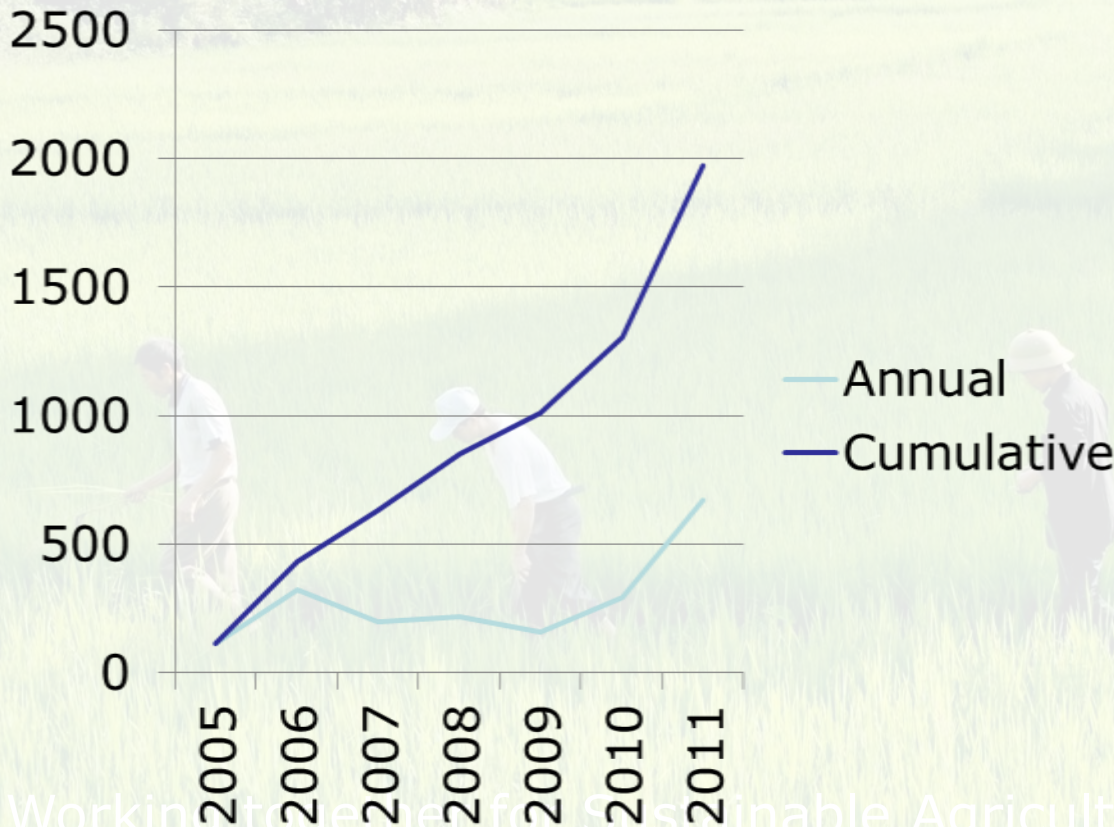
# Integrated Pest Management & Responsible Use



# IPM Vision



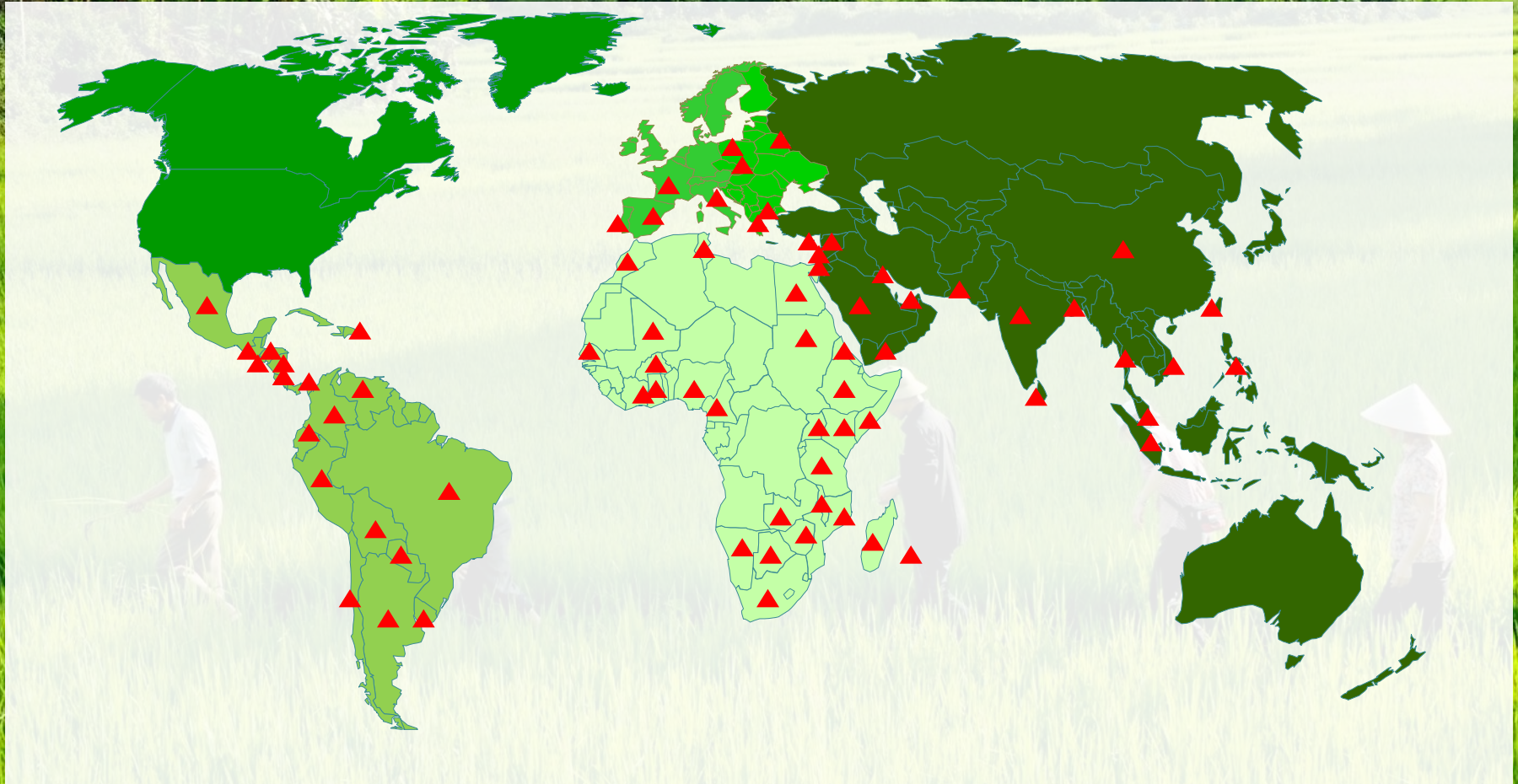
# Numbers Directly Trained (x1000)



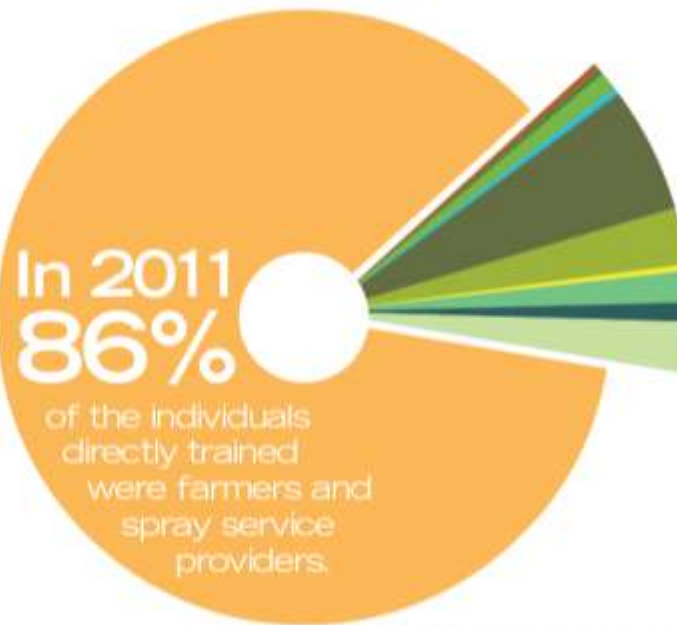
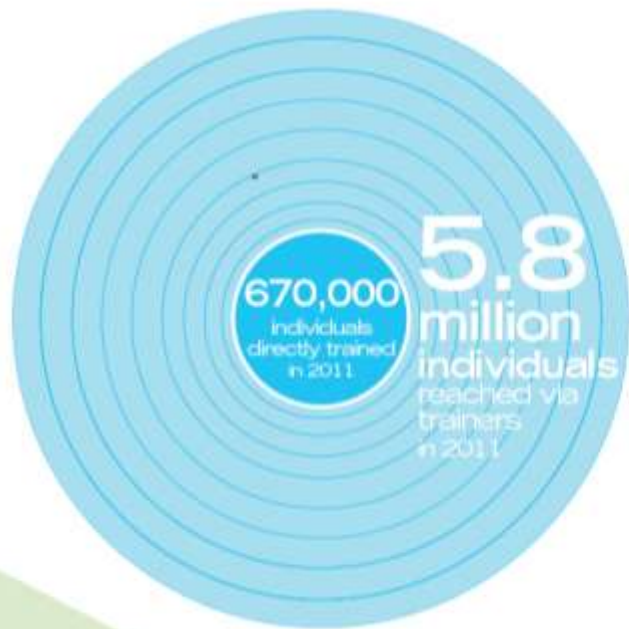
- 72 Countries across the world (circa 58/yr)
- In partnership with over 350 groups – governments, donors, farmer groups, international orgs, universities

Working together for Sustainable Agriculture.

# Location of association supported IPM/RU training 2005-2011



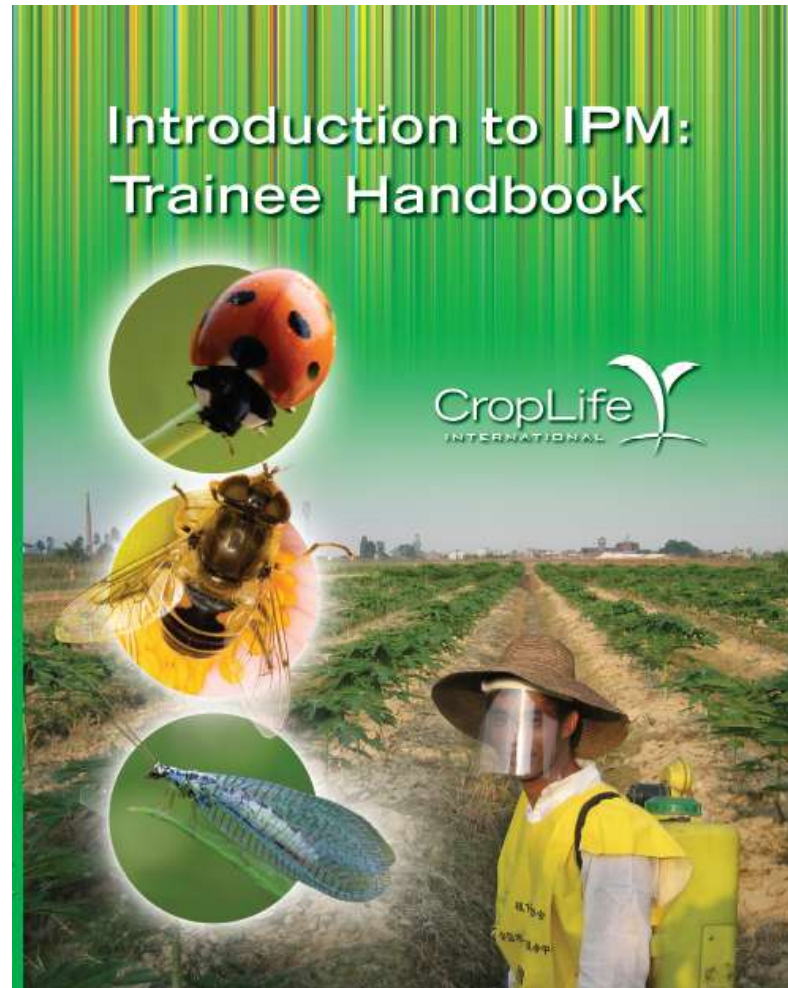
# Number trained in 2011



Source: CropLife International

At least an 8 fold increase annually from indirect training

# Global Training Guidelines



# Global Training Guidelines



# Responsible Use: Poster Series

## RESPONSIBLE USE OF PESTICIDES



Follow the  
**9** easy  
steps

**1** Only use pesticides when needed. Do not use before buying pesticides and only purchase them at authorized retailers.



**2** When transporting pesticides make sure they are securely stored away from people, animals and food.



**3** When storing pesticides make sure they are kept in a well-ventilated, securely locked place.



**4** Carefully read the product label and labels and follow the instructions.



**5** Check sprayer regularly for leaks and that nozzles work properly. Wear personal protective equipment while mixing and loading.



**6** Triple-rinse empty pesticide containers into the spray tank. Then puncture the container so it cannot be used for water or food storage. Note: empty, closed containers to the nearest approved collection site.



**7** While spraying pesticides, always wear personal protection equipment and only use calibrated equipment with no leaks. Spray early in the morning or late in the evening when it is less likely the wet soil, drink or touch while spraying.



**8** Do not spray pesticides near water sources. Do not pollute the environment by releasing pesticides or leaving empty containers in the field.



**9** After spraying pesticides, take a shower and put on clean clothes. Wash the spray equipment and personal protection equipment while protecting water sources and the environment. Store all equipment separately and safely.



In case of accidental contamination, wash and apply first aid according to the label. Then take the person to the nearest medical centre and bring the product label with you.

## Follow these steps **X3** Triple-rinse your used pesticide containers!

Empty all pesticides from the container by placing it upside down over the spray tank. Hold it there for 30 seconds or more.

**1** Quarter-fill the container with water.



**2** Close the container and shake for 30 seconds.



**3** Empty the container by placing it upside down over the spray tank. Hold it there for 30 seconds or more. Repeat these steps 3 times.



Repeat 1 to 3.



Always wear protective clothing.

Protect your health – puncture the container so it cannot be re-used and send to an approved container recycler.

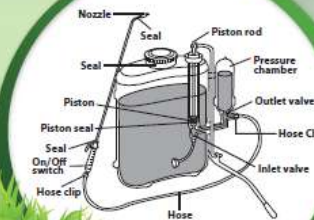


## Maintenance of sprayers



The benefits of maintaining sprayers are:

- It saves you money
- It reduces the risk of skin exposure
- It reduces the risk of environmental pollution



## Handling Methods and Equipment



Loading equipment such as a bridge-plate must be properly constructed

Care **must** be taken to ensure that packages are correctly handled during loading and unloading. In general, the use of suitable mechanical handling equipment is recommended, as it can reduce the risk of damage.

Conversely, the use of unsuitable equipment or poor handling techniques can seriously damage packages and increase the risk of spillage.

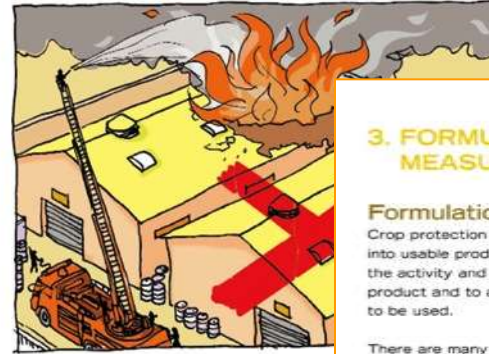
For large quantities of crop protection products, a detached, enclosed store is preferred. Where this is not practicable, crop protection products may be kept in a segregated, dedicated storeroom which is part of a larger building provided the building does not contain a staff room, vehicle store, workshop, office or area used in any way for food.

## Site access

The site **must** provide suitable access for safe delivery and collection with a reasonable working area for loading and unloading of delivery vehicles. Ideally, the building should stand alone with a space of at least 10 metres between it and the surrounding property. The distance depends on the applicable building codes and fire protection codes and on local legislation, e.g., if the warehouse contains flammables, the amount of material stored and the rating of the fire wall can determine how far away other structures **must** be. As a consequence, more buffers to the neighbouring property line may be needed.

Access for emergency vehicles should preferably be available from two sides. The emergency response vehicles (e.g. fire fighters) should be able to take a route that cannot be blocked.

The response to an emergency should be planned in advance, especially if it is known that the approach to the building might be restricted for any reason.



Provide suitable access for fire fighters

## 3. FORMULATIONS, PACKS, MEASURING AND MIXING

### Formulations

Crop protection products are formulated (made up into usable products) by manufacturers to optimise the activity and safety of each crop protection product and to accommodate the ways in which it is to be used.

There are many different types of formulation - liquids and solids - most requiring to be diluted, usually with water, before use, although some are used without dilution. The most common are shown in Appendix 2 (pages 56-57), which also gives a general indication of the associated problems and hazards of which users **must** be aware.



Do not buy packs with broken seals



Do not re-pack crop protection products into other containers

NETWORK FOR SUSTAINABLE AGRICULTURE **agLe@rn.net** RESOURCES

## VEGETABLE IPM

1 - PEST & DISEASES 2 - PREVENTION... 3 - LOOK... 4 - TAKING ACTION... 5 - PROMOTING IPM...

### Vegetable IPM

The past decade has seen a movement of people from rural to urban environments in Asia and, indeed, in most developing countries. The migration is fuelled by the increased economic opportunities offered by an urban lifestyle. Improvements in the economic status of urban populations have resulted in an increased demand for a wider diversity of foodstuffs and in particular high quality vegetables. To meet this demand smallholder, peri-urban, vegetable production has expanded rapidly. This production provides nutrition, income and employment and in some cases generates foreign exchange through exports to other countries. Currently such vegetable farmers rely mainly on pesticides to control a wide range of devastating pests and diseases - a strategy which, unless they are used wisely, threatens the health of smallholders and the peri-urban ecosystems on which they depend.

NETWORK FOR SUSTAINABLE AGRICULTURE **agLe@rn.net**

COURSES

RESPONSIBLE PESTICIDE USE IPM 101 VEGETABLE IPM COTTON IPM RICE IPM SOIL...



### agLearn.net - A Network for Sustainable Agri

agLearn.net, the **Network for Sustainable Agriculture**, is dedicated to the knowledge, attitudes, and working practices of farmers through the promotion of sustainable agriculture practices.

agLearn.net is an Internet based series of courses aiming to support farmer communities through the sharing of knowledge and positive experiences, stakeholders together via partnership and constructive dialogue. The key courses of agLearn.net cover three key areas:

1. [Responsible Pesticide Use](#),
2. [Integrated Pest Management \(IPM\)](#), and
3. [Integrated Soil Fertility Management](#).

In line with the **Plant Science Industry's** commitment to the principles and practices of IPM, four courses are offered in the field of IPM:

- [Introduction to IPM](#),
- [Cotton IPM](#),
- [Rice IPM](#), and
- [Vegetable IPM](#).

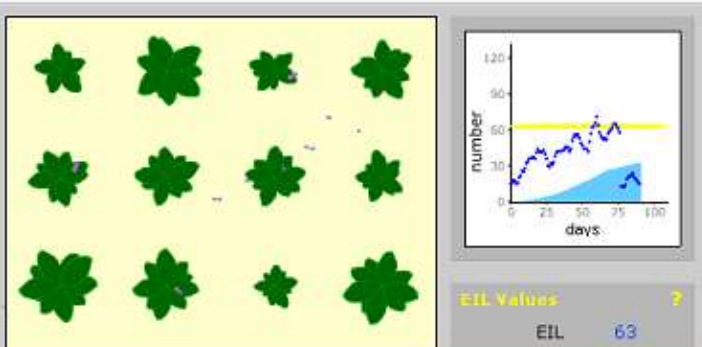
NETWORK FOR SUSTAINABLE AGRICULTURE **agLe@rn.net**

## INTRODUCTION TO IPM

### Economic Injury Simulator

Use the EIL simulator below to see how EILs work. This EIL simulator allows you to adjust the parameters discussed on the previous in order to see how they affect the Economic Injury Level. You can use the arrow buttons to adjust the values up and down. When you have set the EIL at the desired level, press play. When (or if) the pest population reaches the EIL level, press the spray button to knock the population back below economically damaging levels.

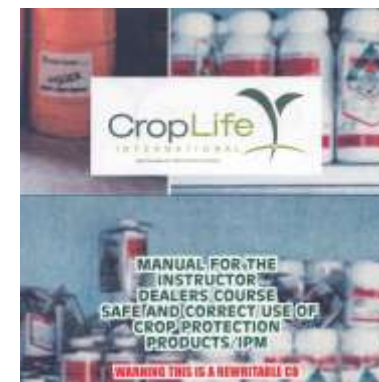
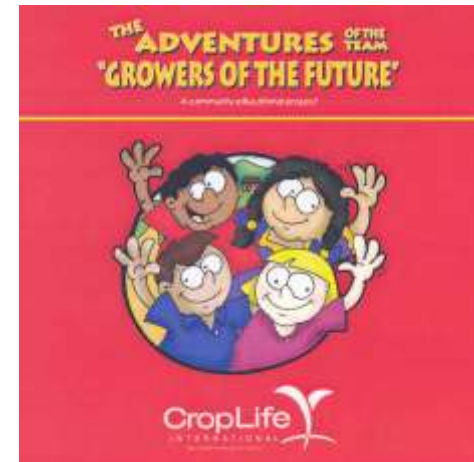
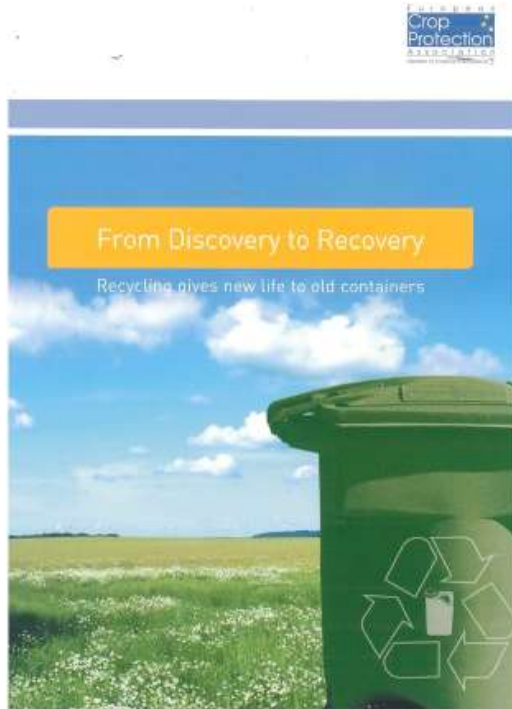
To see the effects of the pests on your harvest, you can adjust the number of pests to zero in the population bar and run the simulation. This will give you an idea of how much crop you can harvest in a completely pest-free environment. You may also want to test the effect of numerous or particularly damaging pests. Setting the initial pest population to a high number (e.g. 50) or setting the injury per pest or damage per injury levels high will certainly reduce harvests.



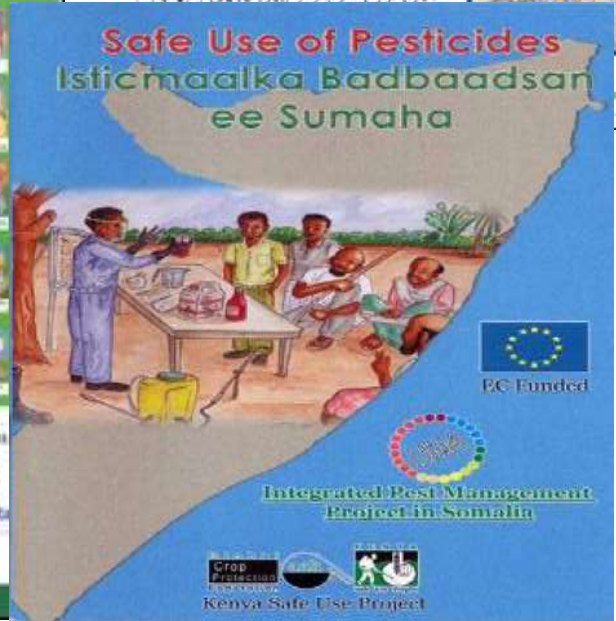
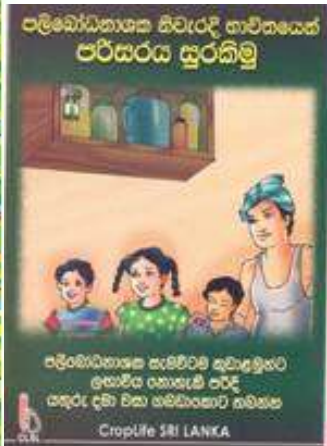
EIL Values ?

EIL 63





# Local Guidelines / Material



# Implementation of the International Code of Conduct



## International Code of Conduct on the Distribution and Use of Pesticides

Revised edition



# International Code of Conduct



- CropLife International's member companies and associations are committed to promoting the CoC
- Have developed training tools to promote understanding of the code across its network:
  - E-learning available in several languages
  - Tracking uptake
- Provides expert input into development of guidelines that support the CoC
- Stewardship Stocktaking Report 2005-2011 summarises activities and impact

# Improving Stewardship Impact and Outreach

Experience has emphasized that:

- Stewardship is the responsibility of all stakeholders
- Stewardship needs to be undertaken in partnership
- Impact of activities need to be measured and communicated
- Stewardship Vision



CropLife International actively seeks partnership and dialogue



**Thank You!**

