



Insecticide Resistance Management Philippine Update

IRAC International Spring meeting
March 17-22, UK

IRAC Philippines

Initially formed in 2009 as Diamide Working Group composed of representatives from Bayer CropScience, Dupont and Syngenta



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IRAC Philippines

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Starting 2011, our IRM activities were coordinated with Croplife Philippines and other stakeholders

2011 Train the Trainers

Development of Training Materials

2012 Hands on Training on IPM/IRM

2012 IRM Farmers Training

2013 Training Programs



**EGGPLANT FRUIT AND SHOOT BORER:
BIOLOGY, CURRENT FARM PRACTICES AND
IMPLICATIONS ON INSECTICIDE RESISTANCE**

Training Materials 2011 Train the Trainers

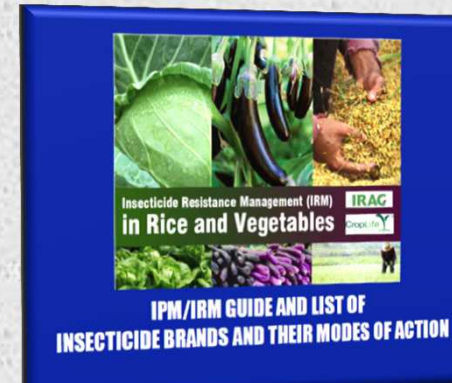


Training Materials 2012 Farmers Training

Flipchart



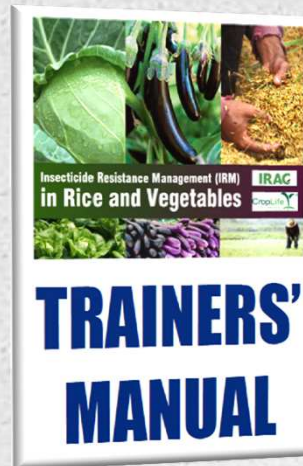
MoA booklet



Training kit



Training manual



Brand Name	Active Ingredient	Chemical Subgroup	MOA
Abamec 1.8 EC Agriguard 1.8 EC Agrimax 1.8 EC Agri-Mek 1.8 EC Radi-Mektin 1.8 EC Romectin 1.8 EC	Abamectin	Avermectins, Milbemycins	6
Acetam 75 SP Complete 75 SP Hi-Octane 75 SP Orthene/Acetam 75 SP Radisson Acephate	Acephate	Organophosphates	1B
Milan 3EC Mospilan 3 EC	Acetamiprid	Neonicotinoids	4A
Nalt Xentari WDG	Bacillus thuringiensis	Bacillus thuringiensis or Bacillus sphaericus and the insecticidal proteins they produce	11
Mycontrol ES	BeauveriaBassiana Strain GHA		
Starbunch 0.1% Starbunch 0.1% Bags Talstar B SC Talstar 10 WP	Bifenthrin	Pyrethroids/Pyrethrins	3A

Important Points Incorporated in the IRM Farmers
Training Module



Life Cycle



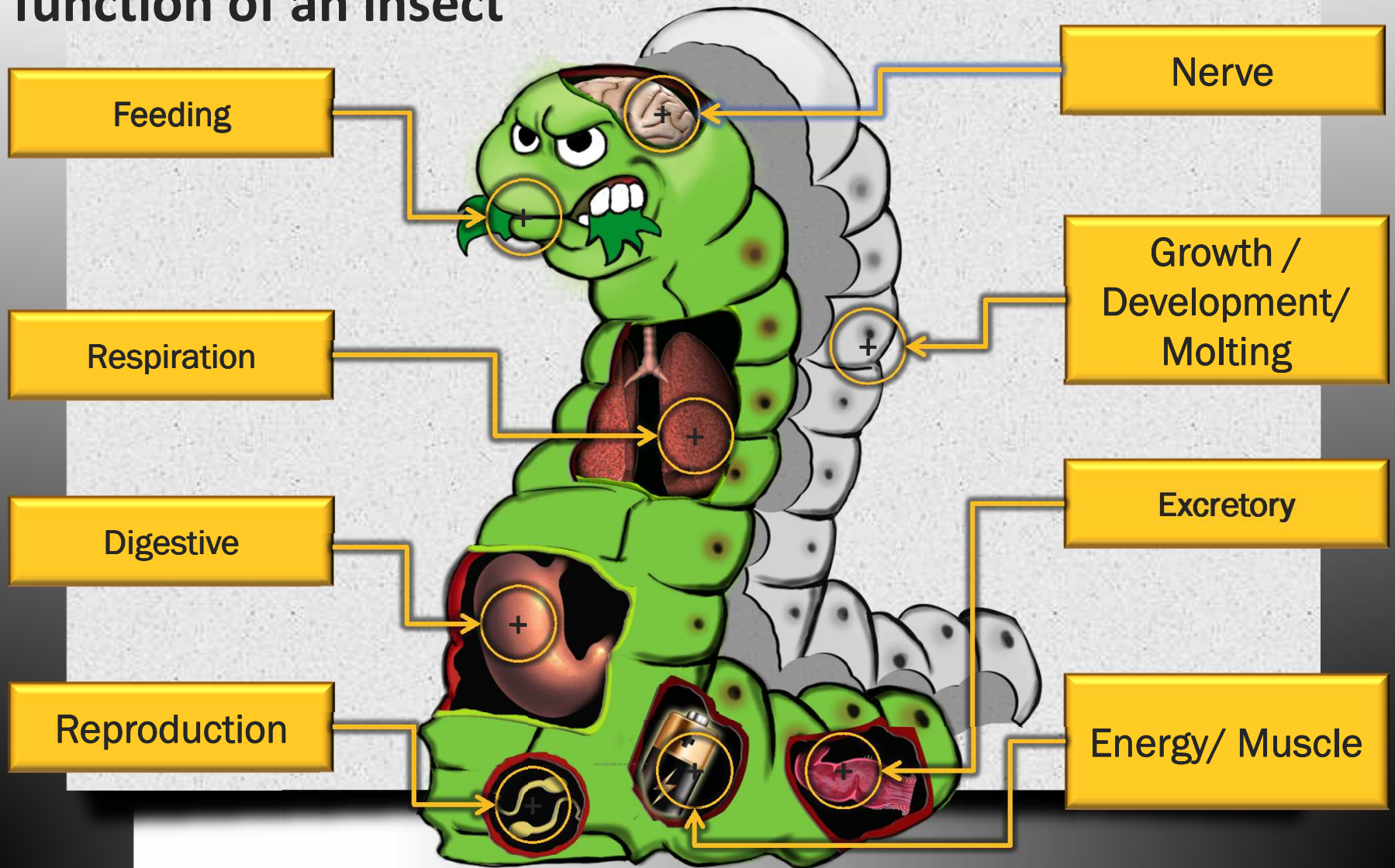
28 Days



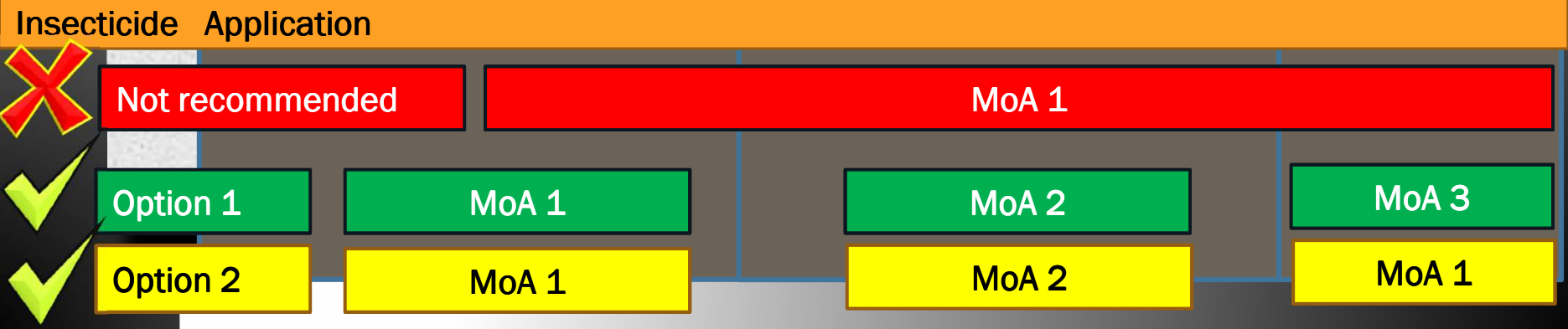
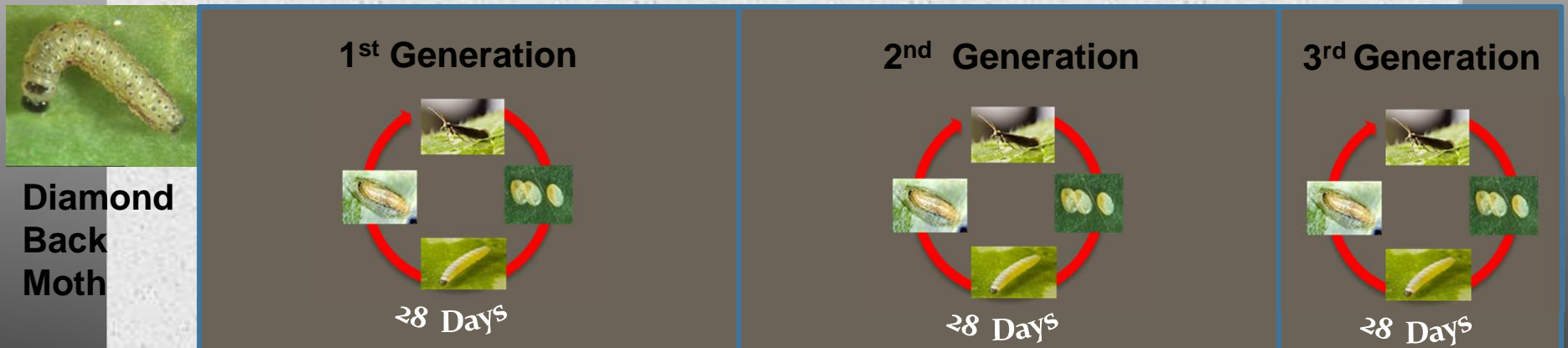
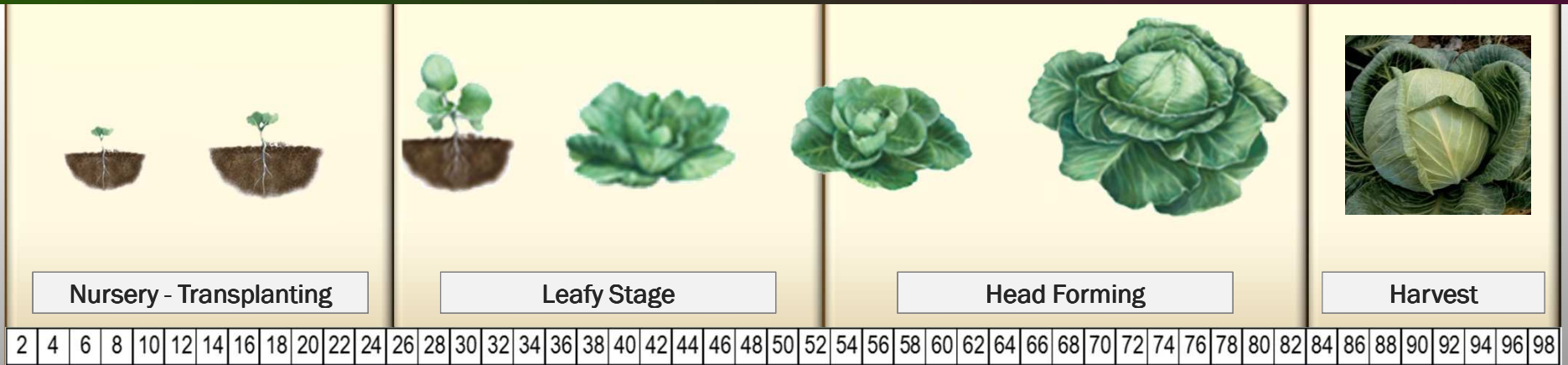
Presence of susceptible and resistant populations

Concept of Insecticide Mode of Action (MoA)

A specific Mode of Action will target a specific part/function of an insect



Rotation by Mode of Action (MoA)

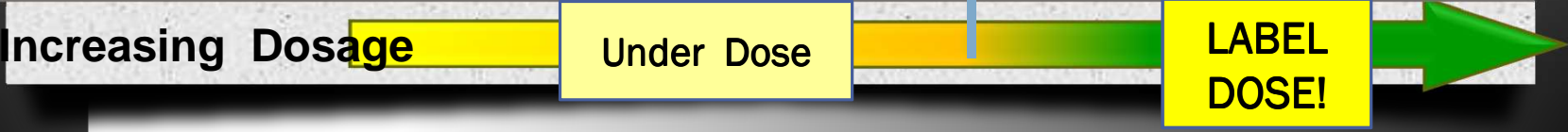
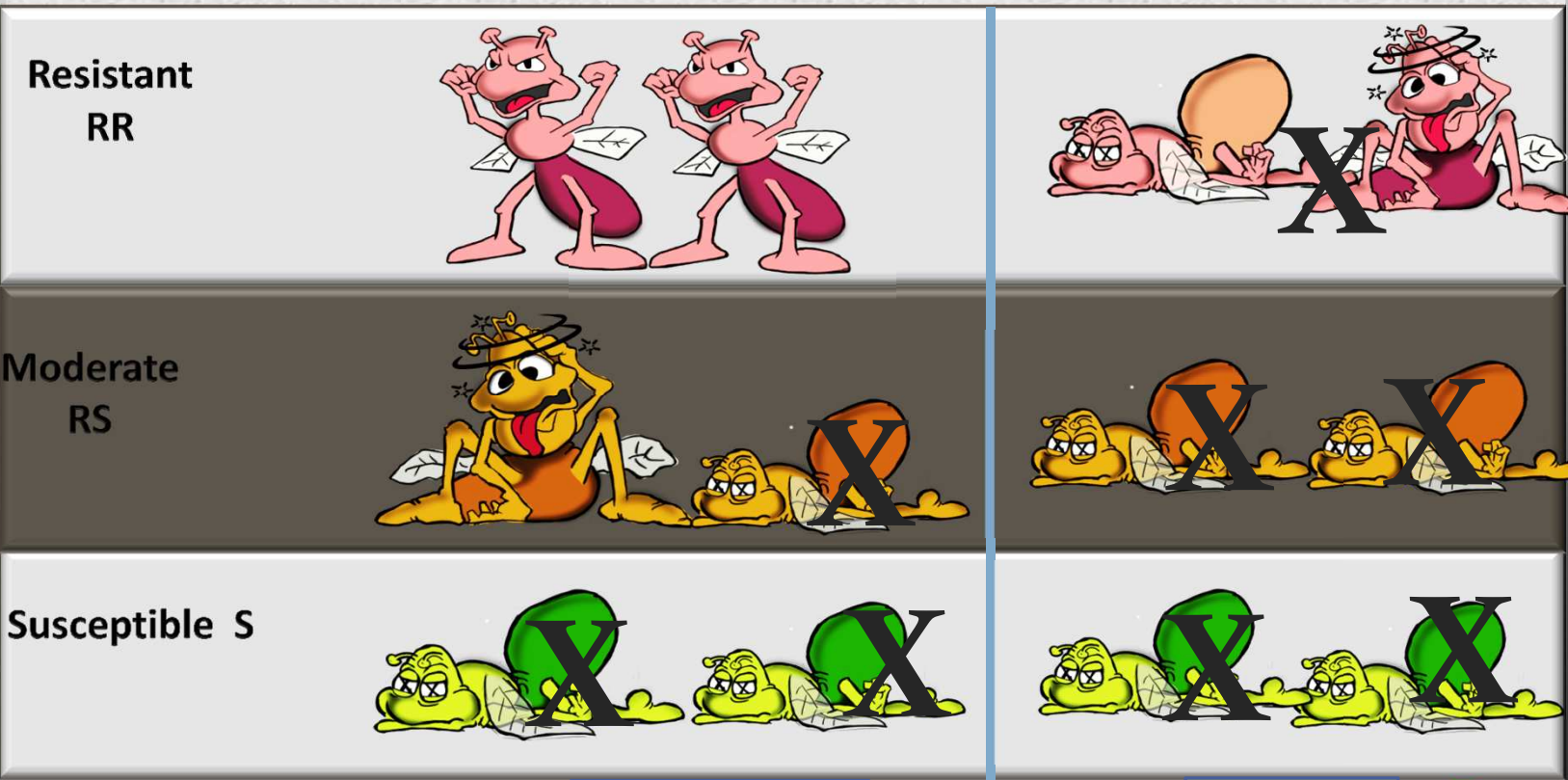


Good Agricultural Practice (GAP) Principles

USE RECOMMENDED DOSE

Under Dose:
Kills most Susceptible but many RS and RR survive

Label Dosage:
Optimal Control
Small number of RR survive



2012 Hands on Training on IPM /IRM



- ❑ Prepared the participants for the IRM Farmers Training
- ❑ 50 participants attended from CLP member companies
- ❑ Training included lecture on IPM/IRM and field activities
- ❑ Launching of IRM Flipchart
- ❑ Obtained commitment from CLP member companies on the number of farmers to be trained/company

2012 Hands on Training on IPM /IRM



2012 Hands on Training on IPM /IRM

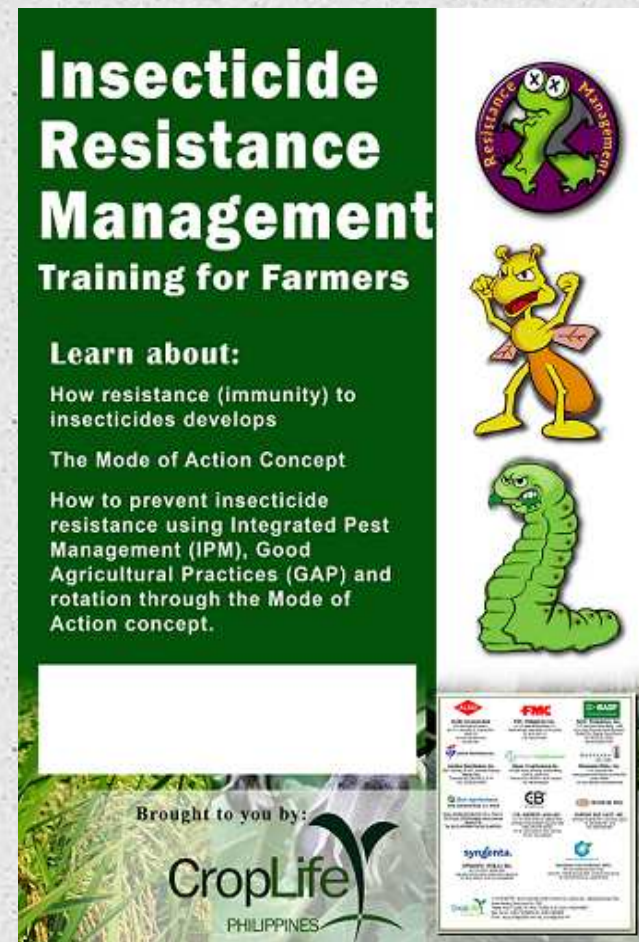


2012 Train the Farmers Program

Target: 5600 vegetables and rice farmers in selected areas

Achievement: +100 % of target

Participating companies: All CLP members except for Monsanto



Insecticide Resistance Management
Training for Farmers

Learn about:

- How resistance (immunity) to insecticides develops
- The Mode of Action Concept
- How to prevent insecticide resistance using Integrated Pest Management (IPM), Good Agricultural Practices (GAP) and rotation through the Mode of Action concept.

Brought to you by:

CropLife
PHILIPPINES

The poster features three cartoon illustrations: a purple insect with 'X' eyes, a yellow insect with wings, and a green caterpillar. At the bottom right, there is a grid of logos for various agricultural companies including FMC, BASF, and Syngenta.

Farmers Training



DuPont

Farmers Training



Syngenta





Bayer CropScience



Farmers Training



Dow/Jardine

Insecticide Resistance Management



New concept for Filipino Farmers....

**Concepts, Theories
Technical Knowledge**

- Insecticide Resistance Action Committee
- CropLife

**Theories, Integrated
with IPM, GAP**

- CropLife Philippines Member Companies
- Academe
- Agriculture Extension Workers
- Local Government
- FPA

**Practical Application
Simplified Concepts**

- Farmers
- Extension Workers
- Local Government

Success Factors

- **Good relationship among representative member companies in CropLife**
- **Strong commitment by each member**



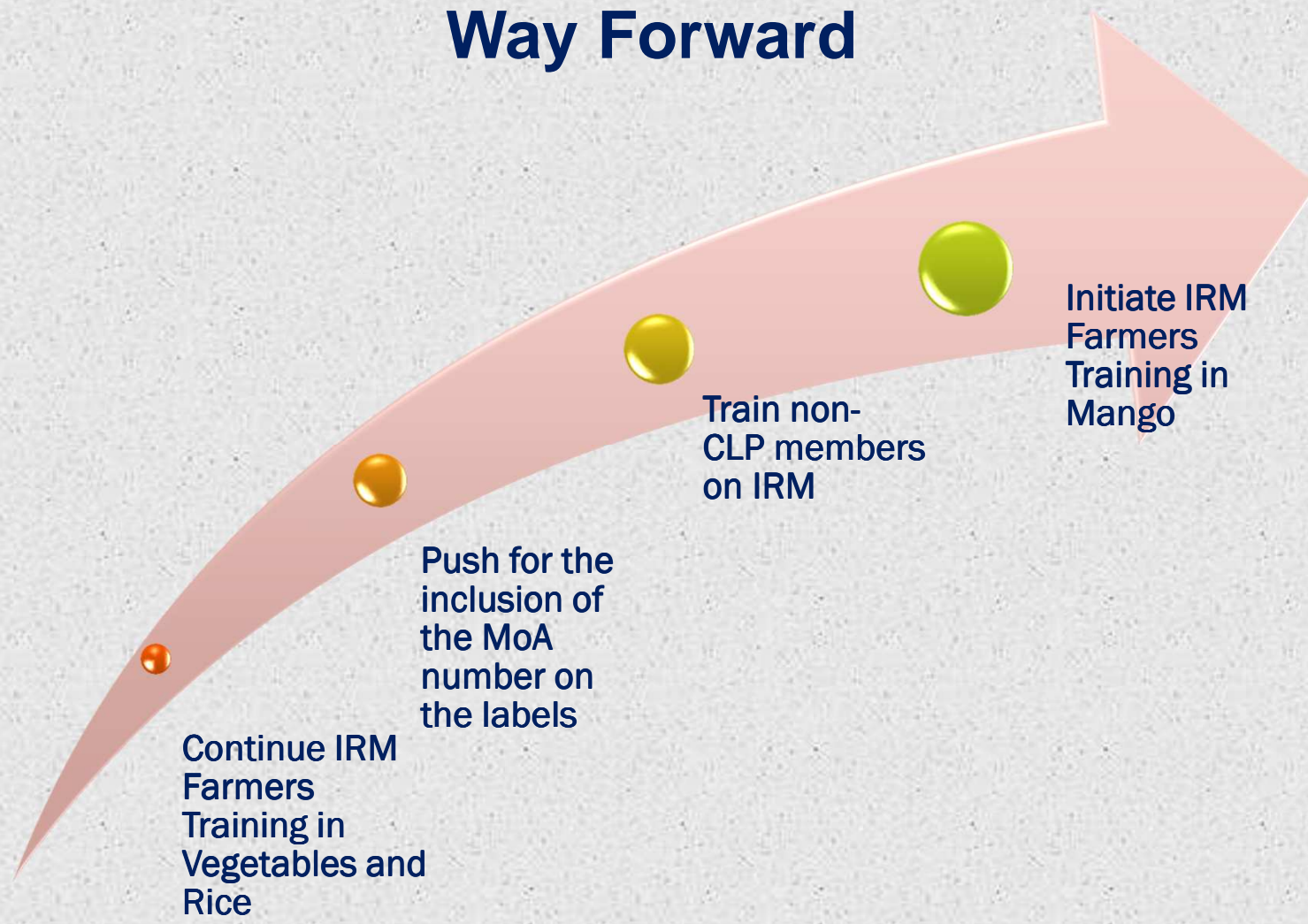
- **Strong network with Academicians and other stakeholders as sources of the knowledge for IRM trainings and modules**
- **Excellent support from the global IRAC and DWG and Croplife Asia**



2012 IRM Farmer 's Training Winner- Dow/Jardine



Way Forward



Continue IRM
Farmers
Training in
Vegetables and
Rice

Push for the
inclusion of
the MoA
number on
the labels

Train non-
CLP members
on IRM


Initiate IRM
Farmers
Training in
Mango



***“Alone we can do so little; together we
can do so much” Helen Keller***

Thank you for your attention

IRAC Country Group Presentations



Brazil (Luis Pavan)
Spain (Pablo Bielza/Maria Torne)
Philippines (Florence Vasquez)
USA (Brad Hopkins/Dan Vincent)