

## **IPM IN PRACTICE:** *Examples from farmers adopting IPM and how it affects their businesses*

### **How does IPM fit with IFM?**



**Integrated Farm Management (IFM) is a whole farm business approach that delivers sustainable farming.**

**IFM** uses the best of modern technology and traditional methods to deliver prosperous farming that enriches the environment and engages local communities.

A farm business managed to IFM principles will demonstrate site-specific and continuous improvement across the whole farm addressing:

- Organisation and Planning
- Soil Management and Fertility
- Crop Health and Protection
- Pollution Control and By-Product Management
- Animal Husbandry
- Energy Efficiency
- Water Management
- Landscape and Nature Conservation
- Community Engagement

With IFM attention to detail is key. Wise, efficient use of resources, smarter approaches to business planning and new technologies all contribute to increasing productivity whilst protecting our valuable resources. **IPM is a core component of IFM** and is something LEAF farmers have been championing for the past 22 years.

LEAF promotes cultural, mechanical, biological and chemical methods for pest management.

On this basis through being LEAF Marque certified, completing the LEAF Audit and being committed to our IFM principles, farmers are likely to be carrying out the requirements of the UK NAP for IPM.

Nevertheless within the IFM and IPM approach, site specific and continual improvement requirements are inherent and with increasingly volatile weather conditions potentially new pest

and disease incidences add further pressures to crop health. Thus the framework of IPM helps develop approaches to **widen your pest control strategies** to improve pest management, increase yields and balance your use of alternative and chemical pesticides. Below are a couple of case studies that reflect a wide range of cropping systems to see how IPM works for specific businesses.

### How can IPM work on Farm?

For LEAF members, effective crop protection using the Integrated Pest Management (IPM) approach is based on four steps: **prevention, observation, informed decision making, and intervention**. The selection of more resistant varieties, combined with balanced crop rotations, helps to minimise the need for crop protection measures. Chemical crop protection is used as much as is needed but as little as possible. Biological methods should be used whenever they are available, ensure satisfactory pest control, and are cost-effective.

### ARABLE PRODUCTION: Morriston Farms

Morriston Farm is a 620ha LEAF Demonstration Farm in Ayrshire. They are an arable farm that grows largely forage crops for neighbouring livestock farms. Strip tillage is used throughout the estate and wide grass margins are planted with wild bird seed or maintained in long term grass/wildflower mixes to increase biodiversity and for game on the estate.

Since the development of the margins, a **reduced requirement for insecticides** has been noticed as the margin is a haven for insects which can help with pest control. For example, ladybird populations are relied upon to control aphids. The ladybirds help **prevent pest outbreaks** and keep aphids **below the threshold** at which they begin to cause damage. Similarly other insects such as ground beetles encourage birds which help keep slug populations low.



*Wide grass margins at Morriston Farms encourage insects which help with pest control*

## GLASSHOUSE PRODUCTION: Eric Wall Ltd.

Eric Wall Ltd has been growing tomatoes under glass since 1977 at the nursery in Barnham, West Sussex. **Biological control** is an important and effective IPM technique for many businesses and is relied upon at this site. For more than 30 years, Eric Wall have been using predatory insect to control pests in the glasshouses.



*Glasshouses at Eric Wall*

Chris Wall noted that by creating ideal growing conditions for tomatoes they also do the same for their pests, with the most common pests being whitefly, red spider and leafminer. To control whitefly the Encarsia wasp is introduced; for the red spider, Phytoseiulus; and for the leafminer, Diglyphus. In addition to these a macrolophus insect is introduced which is a meat eater, to ensure populations of the above are maintained at a satisfactory level.

***“The secret to our success has been the skill of the staff at our nursery – early detection of pests is essential in giving the predators every chance in controlling their numbers. There are over 60 miles of tomato plants and due to the scale of production we are reliant on the staff to feed back issues when they arise.”***

More recently Eric Wall have been challenged with a new pest which is also new to the UK. As yet there is not a complete solution to controlling the ‘Tuta Absoluta’ moth without the use of some pesticides. In this instance a combination of trapping and the macrolophus insect provide good control and artificial pesticides are used to control certain hotspots when necessary.

In glasshouses, biological control has been widely adopted but choices are more limited for outdoor crops, some estimates place outdoor biocontrol 5-10 years behind indoor crops. Nevertheless significant opportunities for the use of biocontrol in other sectors do exist.