IPMnet Bulletin

16 Jan 2026

IPMnet an initative from ADAS

5 pillars of Holistic IPM

Moving from IPM in theory to IPM in practice is challenging. One barrier to implementation is that individual IPM measures are often chosen to solve acute problems and are not considered as part of an integrated system, or holistic, approach.

The 8 principles of IPM are: Prevention and Suppression; Monitoring; Decision-making; Non-chemical methods; Pesticide selection; Reduced pesticide use; Anti-resistance strategies and Evaluation. These principles have been turned into practical support by the IPMWORKS project as **5 pillars for** **Holistic IPM**:

1. **Maintain agricultural landscapes with diverse semi-natural habitats**
2. **Use cropping systems designed to decrease pest/weed/disease pressure**
3. **Optimised decision-making to avoid unnecessary treatments**
4. **Preferential use of non-chemical control options**
5. **Increased efficiency of treatments**

In this issue we will explore examples from IPMWORKS where the pillars of Holistic IPM have been implemented in horticulture, viticulture and arable contexts.

Webinar - Holistic Agroecology Approaches

Hosted by Horizon Europe Projects: AdvisoryNetPEST, FORADVISE, LiveNet, OrganicAdviceNetwork, STRATUS

Wednesday 21st January 2026, 9:30 am - 11:30 am

More information & free registration here.

Webinar – Plants and their underground friends and enemies – why soil in the root zone matters

Hosted by Professor Hary Bending, University of Warwick

Wednesday 21st January, 4pm-5pm

More information & free registration here.

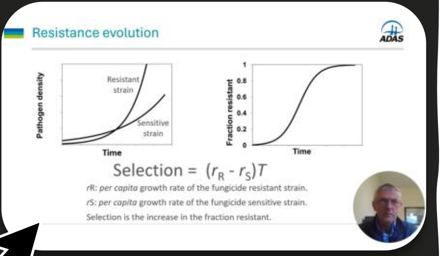
Early signs of SDHI fungicide resistance

AHDB-funded lab studies by NIAB found some septoria isolates to be less sensitive to two new generation SDHIs (Miravis Plus (pydiflumetofen) and Vimoy/Iblon (isoflucypram)) after solo treatments. While no field performance issues have been detected yet, experts warn that repeated use of the same mode of action could accelerate resistance.

- Both SDHIs select similarly, so resistance to one may affect the other.
- Around 15–20% of isolates show reduced sensitivity compared to previous years.
- Resistance is becoming more complex with new mutations emerging.

Video - How to manage fungicide resistance (27:48)

Watch Neil's video for more on the factors associated with fungicide resistance and how to manage it.



Click to watch!

Best practice: Use mixtures and sequences of different modes of action, include multi-sites for septoria control, and avoid repeated use of the same chemistry. Follow Fungicide Resistance Action Committee (FRAC) guidelines to prolong efficacy.

Links to relevant projects and initiatives

IPMNET | Farm-PEP | IPMWORKS | AdvisoryNetPEST | IPM Decisions

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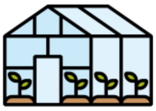
Holistic IPM Pillar 1
Agricultural landscapes with diverse semi-natural habitats

The first pillar encourages the use of diverse semi-natural agricultural landscapes, designed to manage pests, weeds and diseases. This may be achieved through **spatial diversity** in terms of **landscape features** such as **hedgerows, grass and flower strips** and other semi-natural habitats favouring **beneficial biodiversity**.

IPMWORKS examples

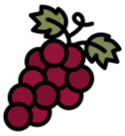
Surrounding experimental plots of outdoor vegetables with diverse habitats is an example of using pillar 1. At this site in Belgium, hedges, grasses and flower buffers and strips as well as a beetle bank and kestrel nest box have been introduced.

These habitats support a diverse range of wildlife and beneficial biodiversity through shelter and food provision which helps to maintain a stable insect population, reducing the need for insecticides. Inagro demo in Belgium



Tuta absoluta can be a significant pest in tomato crops. Planting flowering plants such as *Lobaria maritima* provides food and shelter for natural enemies, helping to manage the pest population. Research in Spain

Planting truffle oaks beside grapevines encourages the spread of naturally occurring biocontrol e.g. *Ampelomyces quiscalis,* which is present on the oaks and spreads to the vines, helping to control powdery mildew. DIVERVITI project in France



The AHDB Resistance Roadshow

Uniting experts from across the country, The Resistance Roadshow aims to equip farmers with the knowledge, tools and confidence to manage pest, weed and disease resistance effectively across their whole farm business.

Events will run **9am-2pm**
Lunch will be served at 1pm
Book your nearest roadshow:

21st January West

22nd January East Midlands

27th January Scotland

10th February North East (Morpeth)

11th February North East (Driffield)

25th February South East

Webinar - Reducing Plastic Use on Farm

Hosted by Innovative Farmers
Thursday 22nd January, 1pm-2pm
More information & free registration here.

IPM Planning Tool Update

Create IPM Plans for your farm
The IPM Planning Tool has been **Updated for 2026** to include new functions.
Get started here.

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Holistic IPM Pillar 2

Cropping systems designed to decrease pest/weed/disease pressure

Pillar 2 focusses on **design of the cropping system** to manage pests, weeds and diseases. This may involve practices such as **diversified crop rotations, cultivars resistant to diseases, intercropping, adapted sowing dates, moderated fertilization and soil tillage, crop mixtures**, and other practices.

IPMWORKS examples

Diversifying the plant population in vineyards with fruit trees, truffle oaks, vegetables and aromatic plants between grapevines creates physical barriers to help pest and disease control. Wide rows have been kept between vines to allow enough space for mechanical weeders to operate. DIVERVITI project in France

Arable trials in the Netherlands applied pillar 2 by identifying potential biological stressors for the farm and region to decide on the length of rotation and cropping system. In an 8-year rotation on sand, resistant cultivars were chosen for the crops such as Cammeo which is a potato variety resistant to late blight and cv. Norway and cv. Hylander for carrots and onions respectively which have powdery mildew resistance. Cover crops such as tagetes (marigolds) and resistant fodder radish were also selected to help manage the nematode population. Wageningen University in the Netherlands

Holistic IPM Pillar 3

Optimised decision-making to avoid unnecessary treatments

The third pillar encourages the use of **optimised decision-making** to guide operational and strategic IPM choices. For example, **precise monitoring** and **IPM Decision Support Systems (DSS)** to avoid unnecessary treatments, and **periodic evaluation of IPM strategies** to continually fine-tune and improve context-specific approaches.

IPMWORKS examples

Arable crop trials in the Netherlands aimed at reducing pesticide input also followed the advice of pillar 3; the crop order was optimised using the DSS tool, best4soil, and effective control measures against soil borne pathogens and insects were selected with support from gezondgewastool. Wageningen University in the Netherlands

The codling moth (*Cydia Pomonella*) is a major pest to fruit in orchards, the larvae often known as the 'apple worm'. Use of DSS in orchards can predict the timing of the first larvae using traps for the adult moths, temperature at dusk and mean daily temperature. Gobierno de Aragon in Spain

Video - IPM Decision Support Systems

Watch this video from AdvisoryNetPEST on IPM Decision Support Systems used to manage Barley Yellow Dwarf Virus

Click to watch!

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Holistic IPM Pillar 4

Preferential use of non-chemical control options

Pillar 4 supports the preferential use of **non-chemical** control options, e.g., **mechanical weeding** (and eventually **robotics**), release of **biocontrol organisms and agents, mating disruption, protective nets**, and other non-chemical methods.

IPMWORKS examples

There are several non-chemical control methods that can be used in greenhouses to control *Tuta absoluta* at different stages in the pest life cycle. *T. absoluta* eggs can be predated by introducing natural enemies e.g. mirid bugs. Larvae can be managed by encouraging parasitoid wasps and introducing toxin-producing bacteria (*Bacillus thuringiensis*). Mating can be disrupted by manipulating sex pheromones and sticky light traps can capture adult *T. absoluta* moths. Manually removing tomato leaves reduces abundance of *T. absoluta* and at the end of the crop cycle, using water and high temperatures (solarisation) can be used to eliminate pupae in the soil. Research in Spain

In vineyards biocontrol products to control powdery mildew may be less effective than standard chemicals, however, in the DIVERVITI project when combined with other IPM measures, were effective enough to control mildew. DIVERVITI project in France

In Aragon in Spain, *Ceratitis capitata* (Mediterranean fruit fly) adult flies can be trapped in mass non-chemical traps which massively reduces the pest population. It is important to place the traps before the first-generation flight and 50 to 75 are placed per hectare. Gobierno de Aragon in Spain

Holistic IPM Pillar 5

Increased efficiency of treatments

Pillar 5 encourages **increased efficiency of treatments**, i.e. through technologies for **precision** and **patch or spot spraying**, including **anti-resistance strategies**.

IPMWORKS examples

Attract-and-kill traps can be used to reduce orchard populations of the pest *Ceratitis capitata*. 50 to 75 devices are placed per hectare prior to the first flight. The traps are coated with food attractants and insecticide, Deltamethrin. When the flies touch the surface of the trap they are killed and fall to the ground, therefore it is not possible to track how many pests were caught. Gobierno de Aragon in Spain

Confined sprayers can be used in vineyards to apply pesticides to ensure the product is only applied to the grapes and not the cover crops. This precision means that biodiversity is maintained on the cover crop and less product is applied to the environment. DIVERVITI project in France

From the examples provided in this issue, vineyards are leading the way, with examples for 4 out of 5 pillars. How many examples of Holistic IPM do you currently practice on farm? Can you think of something from each pillar? If so, let us know at IPMNET@adas.co.uk.

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