

Guideline for creating an Integrate Crop Protection (Integrated Pest Management) plan in accordance with point B.3 of the MPS-ABC standard v.16

What is IPM?

The goal of Integrated Pest Management (IPM) is to establish a sustainable approach to controlling weeds, fungi, pests and other harmful organisms that cause disease in plants.

In terms of sustainability, the aim is to utilise preventative measures whenever possible and, within this context, to reduce or even avoid the use of chemical crop protection products altogether in order to protect the environment. If using chemical crop protection products is unavoidable, the use of biocides must be minimised, as must the risk of harm towards organisms that are not targeted by the control measure, including animals and humans.

In creating an IPM plan, all the available techniques and alternatives are assessed in order to develop an economically viable and sustainable strategy for the prevention and management of pests. This document is purely a guideline to explain the requirements of the MPS standard in more detail.

This guideline is not suitable for use as a basis for planning your own integrated crop protection measures (IPM), nor does it correspond with the required format. If preferred, you can also create a general IPM plan for your entire business, to which specifications on individual crops are added. When doing so, it is not necessary to adhere to the order of the points listed below.

The following points must always be included when creating an Integrated Pest Management plan.

Company:..... **Year:**..... **Crop(s):**

1 - Per crop or plant group, a description of the pests (including insects, diseases and weeds), that are of economic relevance.

Pests of economic relevance are understood to be those that have a demonstrable influence on the crop. The following must be considered:

- Type, scope and source of the pests.
- Risks for humans, animals and the environment.
- Financial risks resulting from a potentially lower crop yield or poorer crop quality.
- Risk of the infestation spreading further.
- Issues that extend beyond your own property.

If multiple crops are produced with different types of pests to control, you should write a description for each crop. If the crops belong to the same plant group and are associated with the exact same pests and diseases, you may formulate your description of the pests in reference to the plant group as a whole.

2- For each pest, illustrations have to be provided to aid identification of the pests, including records of symptoms in crops affected, conditions under which the pest can spread rapidly and the economic threshold for taking measures.

Here you should add a photo of the pest or pathogen with its associated symptoms visible on the plant, as well as a short description of the pest in question. For each pest, you should also specify the precise insect, fungus, nematode, weed or other type of pathogen. Furthermore, you must also record the conditions (such as temperature and humidity) under which the pathogen can quickly spread, as well as the (economic) threshold value you apply for taking measures.

You may take photos yourself, but references to other tools, labels or posters are also sufficient, if already in use.

3- Description of possible and implemented preventive measures.

What preventive – chemical or non-chemical – measures are available and which have you already used to tackle these issues. Please specify the pest control measures along with a justification.

Possible options are:

- Biological control measures:
- Cultivation advice from:
- Advice from an IPM tool or from crop management software that supports decision making:
- Crop inspection:
- Climate control settings:
- Chemical crop protection measures:
- Physical measures (weed hoeing, sticky traps, etc.):
- Crop-specific measures such as the use of resistant varieties:
- Other (please specify):

4- Description of pest monitoring methods and records of checks carried out.

Here you should describe how you monitor pests.

For example:

- Examining the plants in the crop.
- Sticky insect traps.
- Pheromone traps.
- Light traps.
- Berlese funnels/traps.
- Filtered sampling.

5- What measures have you implemented to prevent a potential infestation? Can you justify these? Are there alternatives for this?

They could be:

- Prompt removal of waste heaps.
- Cleaning of spraying equipment.
- Seed selection and opting for resistant varieties.
- Thorough cleaning of the greenhouse during crop changeover.
- Disinfecting the circulation water.
- Use of disinfection containers.
- Use of netting to prevent the invasion or migration of insects.
- Disinfecting secateurs and knives.
- Steaming the soil.

6- Description of measures to reduce the development of resistance.

For this, consider describing how you:

- Maximise the efficiency of control measures.
- Set a minimum required frequency for applying measures.
- Swap between products in different resistance groups.