

Company name:

MPS number:

Crop / Crop group: _____

Date:

Table 1: Pests/diseases/weeds

| Harmful organisms (economic relevance) | | |
|---|---|---|
| Pests | Diseases | Weeds |
| <input type="checkbox"/> Thrips <input type="checkbox"/> Spider mites <input type="checkbox"/> Aphids <input type="checkbox"/> Whiteflies <input type="checkbox"/> Caterpillars, namely: <input type="checkbox"/> Mealybugs <input type="checkbox"/> Mites <input type="checkbox"/> Other pests, namely: | <input type="checkbox"/> Fungal diseases, namely: <input type="checkbox"/> Viruses, namely: <input type="checkbox"/> Other, namely: | <input type="checkbox"/> Weeds, namely: |

Table 2: Images and symptoms of harmful organisms

| Name of pest (disease) | Image or reference | Description of symptoms | Ideal conditions for spread of pest | Economic threshold |
|------------------------|--------------------|-------------------------|---|--|
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | <ol style="list-style-type: none"> 1. High temperature 2. Highly fluctuating temperature (day/night) 3. Humid climate 4. Dry climate 5. Crop residues/old plants 6. Other | <ol style="list-style-type: none"> 1. No alternative available 2. The pest is too far advanced in the crop 3. Biological control is not an option 4. Economic loss will be too great |

Table 3: Preventive measures

| Preventive measures | Measure | Yes/no | Reasons/comments |
|-----------------------------------|---|--------|------------------|
| Resilient plants | Variety characteristics | | |
| | Healthy starting material | | |
| | Use of biostimulants (plant invigorators) | | |
| Company hygiene | Crop changeover/crop rotation | | |
| | Use of clean/healthy starting material | | |
| | Soil disinfection | | |
| | Hygiene protocol | | |
| | Maintenance/cleaning/ disinfecting of machines | | |
| | Drain/irrigation water disinfection | | |
| | Removal and correct disposal of diseased plants | | |
| | Use of insect screens | | |
| | Hygiene sluice/work clothing etc. | | |
| Resilient cultivation environment | Composition of growing medium | | |
| | Composts or organic additives mixed in | | |
| | Fertilisation (e.g. to increase disease tolerance) | | |
| | Microbiological composition of irrigation and recirculation water | | |
| | Climate (e.g. dew formation, temperature) | | |
| | Lighting (LED lights, indirect effect of lighting) | | |

| Preventive measures | Measure | Yes / | Reasons |
|--|---|-------|---------|
| Natural predators (beneficial organisms) and antagonists | Use of natural predators (beneficial organisms) | | |
| | Use of banker plants (indoor cultivation) | | |
| | Use of microorganisms | | |
| | Use of ground cover vegetation strips (outdoor) | | |
| Other measures | | | |
| | | | |

Table 4: Monitoring

| Monitoring | How | Yes/no | When |
|------------|------------------------------------|--------|------|
| Scouting | By worker | | |
| | By grower | | |
| | By crop consultant/adviser | | |
| Resources | Sticky traps (yellow or blue) | | |
| | Pheromone traps | | |
| | Insect lamps | | |
| | Spore traps | | |
| | Drain or irrigation water analyses | | |
| | Tagging pests/diseases | | |

| Monitoring | How | Yes / No | When |
|-----------------------------------|--------------------------------|----------|------|
| Monitoring cultivation conditions | Weather forecasts | | |
| | Crop scanner | | |
| | Decision support systems (DSS) | | |
| | Recording checks carried out | | |
| Other measures | | | |
| | | | |

Table 5: Control measures

| Control measures | Measure | Yes/no | Reasons |
|------------------------------|---|--------|---------|
| Use of non-chemical measures | Use of insect traps | | |
| | Use of insect lamps | | |
| | Use of disruptive factors | | |
| | Use of insect screens | | |
| | Manual/mechanical weeding | | |
| | Use of biological pest control | | |
| | Use of pheromones | | |
| | Other, namely: | | |
| Use of chemical measures | Low-risk crop protection agent | | |
| | Targeted crop protection agent | | |
| | Effective agent against multiple diseases and harmful organisms | | |
| | Crop protection agent with minimal side effects | | |

Table 6: Monitoring resistance

| Measure | Yes/no | When |
|---|--------|------|
| Applying dose stated on label | | |
| Maximising the efficiency of pest control | | |
| Minimum control frequency | | |
| Alternating agents from different resistance groups | | |
| Other, namely: | | |

You can find the resistance groups of crop protection agents on the following websites: IRAC

<https://irac-online.org/modes-of-action> (insecticides)

HRAC <https://hracglobal.com/index.php> (herbicides)

FRAC <https://www.frac.info/> (fungicides)