

Integrated Crop Management (ICM)

The crop protection challenge in 2030

- Reduce the overall use and risk of chemical pesticides by 50 %
- Reduce the use of more hazardous pesticides by 50 %

Transition to sustainability

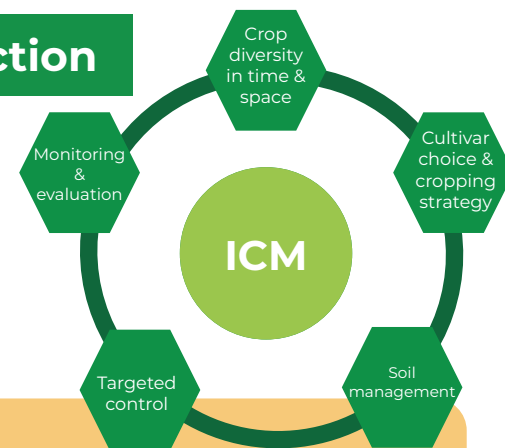
Truly integrated pest, disease and weed control **requires a redesign of the system**

From single-season targeted control measures toward an integrated, multi-season, farm or regional approach



ICM: a framework for redesigning crop protection

1. Crop diversity in time and space
2. Cultivar choice and cropping strategy
3. Soil management
4. Targeted control
5. Proper monitoring and evaluation



Approach

- Identify potential biological stressors
- Build frameworks for pests, fungal diseases, weeds and nematodes
- Design a crop system based on the IWeedM, IInsectM, INematodeM and IDiseaseM frameworks
- Test the ICM design in a farm context for ecosystem services such as economy, yield, pest, disease and weed control, biodiversity and environmental impact

