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Center for Smart Agriculture



Module 1: Organic Production: Horticultural Crops
Session 1: Selection of Adopted and Resistant Varieties



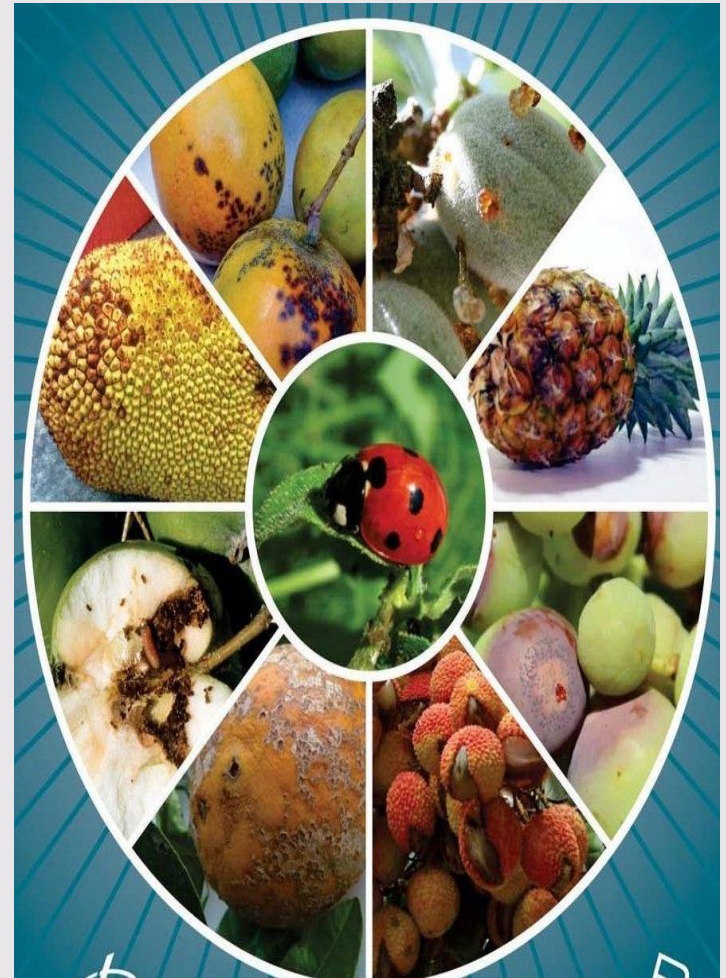
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Knowledge about plant health and pest and disease ecology helps the farmer to choose effective preventive crop protection measures.

As many factors influence the development of pest and disease, it's crucial to step in at the most sensitive points.

This can be accomplished through the right timing of management practices, a suitable combination of different methods, or the choice of a selective method.





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Some important preventive crop-protection measures are the following ones:

- Selection of adapted and resistant varieties
- Selection of clean seed and planting material
- Use of suitable cropping systems

Mixed cropping systems: can limit pest and disease pressure as the pest has less host plants to feed on and more beneficial insect life in a diverse system.

Crop rotation: reduces the chances of soil borne diseases and increases soil fertility.

Green manuring and cover crops: increases the biological activity in the soil and can enhance the presence of beneficial organisms (but also of pests; therefore a careful selection of the proper species is needed).

- Inorganic farming, mono-cropping should be avoided and preferably 2-3 crops should be taken together.
- High-nutrient demanding crops, such as potato, cabbage, etc., must be preceded or followed by legumes or planted as intercrops.
- Short duration legumes, such as vegetable creepers are favoured choices of farmers living near urban areas.



Some important preventive crop-protection measures

Mixed cropping systems

Green manuring and cover crops

Crop rotation

Selection of adapted and resistant varieties

Selection of clean seed and planting material

Avoiding Inorganic farming and mono cropping



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The following points should be given importance for selection of suitable varieties inorganic farming:

- The main traits required under low-input conditions
- Current breeding programmes for organic, low-input agriculture
- Currently available breeding and/or selection approaches
- The benefits and potential negative side-effects of different breeding methodologies and their relative acceptability under organic farming principles



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VERMICOMPOST



**GREEN LEAF
MANURES**



CROPROTATION



MANURES

**ORGANIC
FARMING**



BIOFERTILIZERS



**ANIMAL
HUSBANDRY**



**BIOLOGICAL
MANAGEMENT**



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Thank you...