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LECTURE – 3

FARMING SYSTEM COMPONENTS AND THEIR MAINTENANCE



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Plant interactions

➤ **Interactions between component crops**

In intensive cropping, crops are grown in association (intercropping) or in sequence (sequential cropping). In such situations there is possibility of interaction between the component crops. The interaction is mainly due to response of one species to the environment as modified by the presence of other species. Interaction may be competitive or non-competitive or complementary.

➤ **Interactions in intercropping**

1. Light
2. Moisture and Nutrients
3. Allelopathy
4. Annidation



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Interactions in Sequence Cropping

- Competition for light, water and nutrients as in mixed crop communities does not occur when sole crops are grown in sequence.
- It occurs only in relay cropping where there is a short span of overlapping between two crops in a sequence and the relay crop experiences the shortage of light.
- Crops are raised one after another to keep the land occupied by the crop for longer period.
- If the crop development is slow, much of the solar radiation reaches the ground, favouring weed growth and increasing evaporation losses from the soil surface.



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Management of Intercropping Systems

- **Seed bed**
- **Varieties**
- **Fertilizer applications**
- **Sowing**
- **Water requirement**
- **Weed management**
- **Pest and diseases**
- **Harvesting**



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Management of Intercropping Systems

- **Seed bed**
- **Sowing**
- **Varieties**
- **Fertilizer applications**
 - *Soil Supplying power*
 - *Nutrient Uptake by Crops*
 - *Residual Effect of fertilizer*
 - *Legume effect*
 - *Crop residues*
 - *Efficiency of crops*



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- **Water requirement**
- **Weed management**
- **Pest and diseases**
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