

## Lecture 4

### Soil management Technology

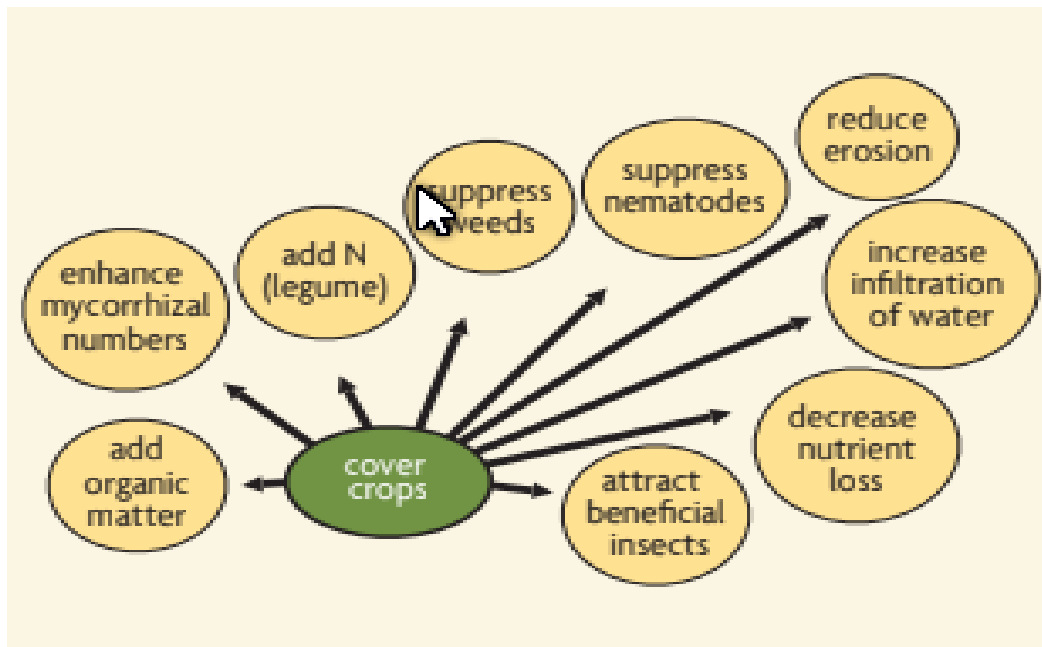
## Management Practices to Improve Soil Health

### ➤ Planting cover crops:

Cover crops are an integral component of cropping systems to conserve soil and water. They protect soil against erosion, improve soil structure, and enhance soil fertility. Cover crops with legumes and mixture of plants enhance performance of crop rotations.

A cover crop is grown mainly to prevent soil erosion by covering the ground with living vegetation and living roots that hold on to the soil.

### • BENEFITS OF COVER CROPS



- **COVER CROP MANAGEMENT**

There are numerous management issues to consider when using cover crops. Once you decide what your major goals are for using cover crops, select one or more to try out. Consider using combinations of species. You also need to decide where cover crops best fit in your system planted following the main crop, intercropped during part or all of the growing of the main crop, or grown for an entire growing season in order to build up the soil.

Other management issues include when and how to kill or suppress the cover crop, and how to reduce the possibility of interference with your main crops either by using too much water in dry climates or by becoming a weed in subsequent crops.

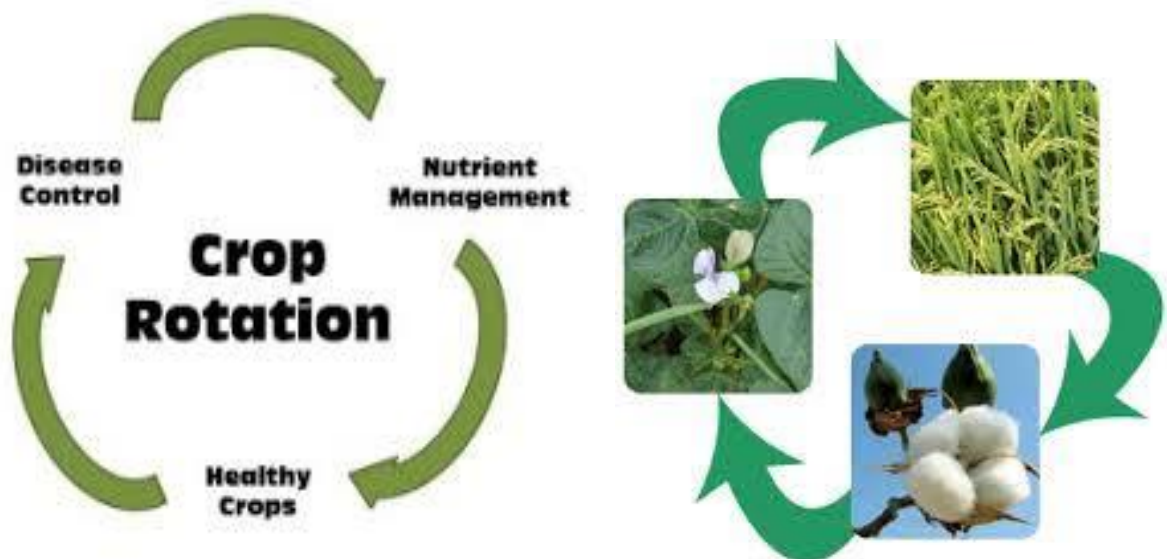


## ➤ Crop rotations:

Crop rotations are recommended to improve soil structure, macroporosity, reduce soil compaction, and increase soil organic matter content.

When used synergistically, crop rotations in conjunction with cover crops reduce incidence of insects and weeds and diseases, improve soil productivity, and accentuate sustainability and profitability.

The selection of crops for a rotation sequence varies with local and regional characteristics. It depends on the soil type, soil fertility, soil slope, economic and market goals, presence of pests, and livestock type.



## Crop Rotation Example

