

Class 01: Introduction to Organic Farming

Part 1: Definitions and Core Principles

Question 1: What is organic farming?

Answer: Organic farming is an agricultural production system that respects natural balances by eliminating synthetic chemicals (pesticides, herbicides, chemical fertilizers) and promoting biodiversity, soil health, and animal welfare.

Question: What are the main objectives of organic farming?

Answer:

- Preserve the environment.
- Protect biodiversity.
- Ensure animal welfare.
- Produce wholesome food without chemical residues.
- Promote sustainable cropping systems.

Question 2: Which labels certify that a product is organic?

Answer: In Europe, the primary label is the EU organic logo (a green leaf made of stars). In France, the AB (“Agriculture Biologique”) label is also widely recognized.

Part 2: Practices and Techniques

Question 1: What fertilization techniques are used in organic farming?

Answer:

- Use of compost and natural manure.
- Green manures (cover crops grown to enrich the soil).
- Crop rotation to maintain soil fertility.
- Natural amendments (organic fertilizers).

Question 2: How are diseases and pests managed in organic farming?

Answer:

- **Biological control** using natural predators (e.g., ladybirds against aphids).
- **Physical methods** such as traps and protective nets.

- **Natural preparations**, e.g., nettle decoctions to help manage pests like aphids, Colorado potato beetles, and leafhoppers, and to mitigate fungal diseases such as late blight, powdery mildew, rust, gray mold (*Botrytis*), anthracnose, brown rot, black spot on roses, and apple scab.
- **Good cultural practices** including crop rotation and choosing resistant varieties.

Question 3: What is crop rotation and why is it important in organic farming?

Answer: Crop rotation is the practice of alternating different plant families on the same plot from one season to the next. It prevents soil exhaustion, breaks disease and pest cycles, and improves soil fertility.

Part 3: Environmental and Societal Impact

Question 1: What are the environmental benefits of organic farming?

Answer:

- Reduced pollution of soil, water, and air.
- Protection of biodiversity (flora and fauna).
- Preservation of soil quality through the absence of synthetic chemicals.
- Lower greenhouse gas emissions compared with conventional farming.

Question 2: How does organic farming affect consumer health?

Answer:

- Reduced exposure to pesticides and other chemical residues.
- Foods often contain higher levels of certain nutrients (e.g., antioxidants, vitamins).
- Improved product traceability (from farm to table).

Question 3: What are the drawbacks or limits of organic farming?

Answer:

- Generally lower yields than conventional agriculture.
- Higher production costs, which can mean higher prices for consumers.
- Greater labor requirements.
- Stronger dependence on natural and climatic conditions.