Organic Farming
Organic farming:

- Organic farming is a technique, which involves cultivation of plants and rearing of animals in natural ways.
- This process involves the use of biological materials, avoiding synthetic substances to maintain soil fertility and ecological balance thereby minimizing pollution and wastage.

Key facts:

- It is a farming method that involves growing and nurturing crops without the use of synthetic based fertilizers and pesticides. Also, no genetically modified organisms are permitted.
- It relies on ecologically balanced agricultural principles like crop rotation, green manure, organic waste, biological pest control, mineral and rock additives.
- Organic farming makes use of pesticides and fertilizers if they are considered natural and avoids the use of various petrochemical fertilizers and pesticides.
- Crop rotation is one of the main constituent of this kind of farming. In this method of farming a great emphasis is laid on maintaining the health of the soil by crop rotation.
- After every crop, the farmers grow leguminous plants with other crops to recharge the soil with atmospheric Nitrogen which is an important mineral required for bumper crop production.
- These leguminous plants through their roots nodules fix Nitrogen into the soil to make it fertile once again.

Objective of Organic Farming:

- Increase genetic diversity.
- Promote more usage of natural pesticides.
• Ensure the right soil cultivation at the right time.
• Keep and build good soil structure and fertility.
• Control pests, diseases and weeds.

Features:

• Protecting soil quality using organic material and encouraging biological activity
• Indirect provision of crop nutrients using soil microorganisms
• Nitrogen fixation in soils using legumes
• Weed and pest control based on methods like crop rotation, biological diversity, natural predators, organic manures and suitable chemical, thermal and biological intervention
• Rearing of livestock, taking care of housing, nutrition, health, rearing and breeding
• Care for the larger environment and conservation of natural habitats and wildlife

Types of Organic Farming:

1. Pure organic farming
   • It involves the use of organic manures and biopesticides with complete avoidance of inorganic chemicals and pesticides.

2. Integrated organic farming
   • It involves integrated nutrients management and integrated pest management.
   • It is the type of farming in which development of crops from natural resources having the complete nutritive value and manages to prevent the crop or plants from the pests.

3. Integration of different farming systems
   • Integration of different farming systems involves several other components of farming such as poultry, mushroom production,
goat rearing, and fishpond simultaneously with regular crop components.

**Techniques:**

**Crop Rotation:**
- It is the technique to grow various kind of crops in the same area, according to the different seasons, in a sequential manner.

**Green Manure:**
- It refers to the dying plants that are uprooted and turned into the soil to make them act as a nutrient for the soil to increase its quality.

**Biological Pest Control:**
- With this method, we use living organisms to control pests with or without the use of chemicals.

**Compost:**
- Highly rich in nutrients, it is a recycled organic matter used as a fertilizer in the agricultural farms.

**Management of Soil:**
- Soil management is the soul of organic farming. It’s a well-known fact that after taking one crop, the soil of the farm loses most of its nutrients and its fertility goes down.
- To process of recharging the soil with all the necessary nutrients is called soil management. In organic farming the nutrients are recharged in the soil through natural ways to increase the soil fertility.
- For this purpose, animal waste is increasingly used to recharge the soil with the necessary nutrients. The bacteria present in animal waste make soil fertile once again.
Management of Weeds:

- Organic farming focuses on removing the weeds from the soil during the crop production. Weeds are unwanted plants that grow in the agriculture fields simultaneously with the crops and they suck most of the nutrients present in the soil. As a result the production of the crops gets affected. To get rid of weeds the farmers follow the below mentioned techniques
- Mulching and Cutting or Mowing: Mulching is a process in which the farmers use plant residue or plastic films on the surface of the soil which blocks the growth of the weed while cutting or mowing helps in removal of the growth of the weeds in the farms.

Benefits of Organic Farming

- Disease and Pest Resistance
- Weed Competitiveness
- Lower Input Costs
- Drought Resistance
- Added Value

Limitation:

- Organic manure is not abundantly available and on plant nutrient basis it may be more expensive than chemical fertilizers if organic inputs are purchased.
- Production in organic farming declines especially during first few years, so the farmer should be given premium prices for organic produce.
- The guidelines for organic production, processing, transportation and certification etc are beyond the understanding of ordinary Indian farmer.
- Marketing of organic produce is also not properly streamlined.
Organic Farming in India:

- According to World Organic Agri Report 2018, India is the home, to 30 per cent of the total organic producers in the world, but accounts for just 2.59 per cent (1.5 million hectares) of the total organic cultivation area of 57.8 million hectares.
- At the same time, most organic farmers are struggling due to poor policy measures, rising input costs and limited market, says a study by the Associated Chambers of Commerce and Industry of India (ASSOCHAM) and global consultancy firm Ernst & Young.

Why India needs Organic Farming?

- The main reason farmers state to farm organically is their concern about working with agricultural chemicals in conventional farming systems.
- As many farm chemicals require energy intensive manufacturing processes that rely heavily on fossil fuels, there is an issue with the amount of energy used in agriculture. Organic farmers find their method of farming to be profitable and personally rewarding.

Certified Organic:

- It is a term given to products produced according to organic standards as certified by one of the certifying bodies.
- There are several certification bodies operating in India.
- A grower wishing to be certified organic must apply to a certification body requesting an independent inspection of their farm to verify that the farm meets the organic standards.
Farmers, processors and traders are each required to maintain the organic integrity of the product and to maintain a document trail for audit purposes.

Products from certified organic farms are labelled and promoted as “certified organic.”

**Organic Market of India:**

- India is the largest exporter of organic cotton worldwide.
- More than 30% of world’s organic producers are in India.
- India exporting over 300 products in 20 different categories.
- India Exported 1.35 million metric tons of “certified organic” food in the year of 2015-16.
- Oilseeds comprised half of India’s overall organic food export, followed by processed food products at 25%.
- Current Indian organic market is estimated at more than Rs. 4000 crore and it is likely to increase to 10,000 to 20,000 crore by 2020.
- Indian organic market has a combined annual growth rate of 25% compared to 16% global growth rate.

**Organic Sikkim:**

- India’s first 100% organic state Sikkim has won the 'Oscar for best policies', conferred by the Food and Agriculture Organisation for the world’s best policies promoting agroecological and sustainable food systems.
- Sikkim beat 51 nominations from 25 different countries of the world to win the Future Policy Award 2018.
- The Chief Minister of Sikkim Pawan Kumar Chamling received the award from the Deputy Director of UN’s FAO Maria Helena Semedo in Rome on October 15th. The Future Policy Award recognised the state’s leadership and political will to lead by example.
Conclusion:

Organic farming can be a viable alternative production method for farmers, but there are many challenges.