

Chapter 6: Food Production

Food production is essential for feeding the growing population. This chapter explores the role of **microorganisms, agriculture, horticulture, organic farming, and animal husbandry** in food production.

1. Role of Microorganisms in the Food Industry

a) Bacteria in the Food Industry

- ✓ Used in curd formation (Lactobacillus bacteria)
- ✓ Helps in making cheese, vinegar, and pickles
- ✓ Used in fermentation (e.g., production of yogurt)

b) Fungi in the Food Industry

- ✓ **Mushrooms** – Edible fungi, rich in nutrients
 - ✓ **Yeast** – Used in baking (helps bread rise) and in making alcohol through fermentation
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2. Agriculture

a) Cultivated Crops

Crops are categorized into:

Type	Examples
Food Crops (for consumption)	Rice, wheat, maize, pulses
Cash Crops (for trade)	Cotton, sugarcane, tea, coffee, jute

b) Major Crops Grown in India

- ✓ **Rice & Wheat** – Staple food crops
 - ✓ **Tea & Coffee** – Plantation crops
 - ✓ **Sugarcane & Cotton** – Cash crops
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3. Horticulture

Horticulture deals with the cultivation of **fruits, vegetables, and decorative plants**.

Type	Examples
Vegetables	Tomato, potato, carrot
Fruits	Mango, banana, apple
Decorative Plants & Flowers	Rose, tulip, orchids

4. Organic Farming & Green Revolution

a) Organic Farming

- ✓ Uses **natural fertilizers** like compost
- ✓ Avoids chemical pesticides and fertilizers
- ✓ Eco-friendly and improves soil health

b) Green Revolution

- ✓ Introduction of **high-yielding varieties (HYV) of crops**
 - ✓ Use of chemical fertilizers and irrigation methods
 - ✓ Increased food production in India
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5. Animal Husbandry

Animal husbandry is the **rearing of animals** for food, work, and other uses.

Type	Examples
Milk-yielding (Milch) Animals	Cow, buffalo, goat
Meat-providing Livestock	Chicken, sheep, goat, pig
Draught Animals (Heavy Work)	Bullocks, horses, camels (used for plowing, transport)
Poultry (Egg & Meat Production)	Chickens, ducks
Fish Farming (Pisiculture)	Rearing of fish like Rohu, Catla
Sericulture (Silk Production)	Rearing of silkworms
Apiculture (Honey Production)	Beekeeping for honey and wax

White Revolution

- ✓ **Increase in milk production** through better breeding and feeding of cows
 - ✓ Led by **Dr. Verghese Kurien** in India
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Conclusion

Food production relies on **microorganisms, agriculture, horticulture, organic farming, and animal husbandry**. Innovations like the **Green Revolution** and **White Revolution** have increased food supply, ensuring better nutrition and economic growth. 🌾🐄🐝

