

IMPROVEMENT IN FOOD RESOURCES

SUMMARY

- ❖ The **green revolution** contributed to increased food-grain production, and the **white revolution** contributed to increased availability of milk.
- ❖ **Sources of Nutrition** include cereals, pulses, oil seeds, vegetables, spices and fruits.
- ❖ **Kharif crops** are grown in the rainy season, which is from June to October.
- ❖ **Rabi crops** are grown in the winter season from November to April. Desirable traits are incorporated into the plant by **hybridisation**.
- ❖ **Genetic modification in plants** produced plants that are able to survive in a drought and water logged conditions.
- ❖ **Macronutrients** includes nitrogen, phosphorous, potassium, calcium, magnesium, and sulphur. Micronutrients includes iron, manganese, boron, zinc, copper, molybdenum and chlorine.
- ❖ **Manure** increases soil fertility. **Types of manure** includes **compost, vermi-compost** and **green manure**.
- ❖ **Fertilizers** supply nitrogen, phosphorus and potassium to the plants.
- ❖ Blue green algae are used as **biofertilizers** and neem leaves or turmeric are used as **biopesticides**.
- ❖ **Irrigation** is the artificial supply of water to the soil by means such as wells, **canals**, rivers and **tanks**.
- ❖ **Types of wells** include **dug well** and **tube well**. When canal flow is insufficient due to inadequate reservoir release, **river lift systems** are used.
- ❖ **Rainwater harvesting** increases the ground water levels and reduce soil erosion.
- ❖ **Cropping patterns** -Types: **mixed cropping, inter cropping** and **crop rotation**. Nurturing crop plants against the damages caused by weeds, **pests** and diseases is **crop protection management**.
- ❖ Diseases in plants are caused by pests, bacteria, fungi and viruses and can be controlled by spraying **pesticides, insecticides** and **fungicides**. Exposure to chemical fumes kills pests, called **fumigation**.
- ❖ **Animal husbandry** is the farming and management of animal livestock including cattle, goat, sheep, poultry, and fish.
- ❖ The practice of rearing cattle is **cattle farming**. Milk-producing female animals are **dairy animals**.
- ❖ Male cattle used for farm labour are **draught animals**.
- ❖ **Roughage feed** contain high fibre content and **concentrate feed** contain low fibre and high protein content.

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- ❖ Diseases in cattle are caused by **external parasites** and **internal parasites**. The period following the birth of a calf is **lactation period**.
- ❖ **Cross breeding in cows** lead to a new breed with a long lactation period as well as a strong resistance to diseases. **Poultry farming** is the practice of raising poultry.
- ❖ **Cross-breeding in poultry** lead to new varieties with desirable traits. Enclosures like tanks are used to produce fish for commercial purposes, called **fish farming or aquaculture**.
- ❖ **Capture fishing** involves obtaining fish from natural resources and **culture fishing** involves culturing the fish in small enclosures. Fishing in saltwater regions is called **Marine Fisheries**.
- ❖ **Mariculture** involves culturing of fish in marine water.
- ❖ **Inland fisheries** comprise canals and reservoirs where fish are trapped or captured. Another rich source of fish are found in reservoirs where fresh water and sea water mix, these regions are called **estuaries**.
- ❖ **Composite Fish Farming** is intensive fish farming of five or six fish species, with different food habits in a single fishpond. Practice of maintaining honey bee colonies in beehives is called **bee-keeping** or **apiculture**.
- ❖ **Beehives** are enclosed structures in which honey bees live and raise their young. **Varieties of honey-bees** are *Apis cerana indica*, *Apis dorsata* and *Apis florea*.