

Introduction to Livestock Farming

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Key concepts, benefits, challenges, and best-practice fundamentals

1. What Is Livestock Farming?

- **Definition:** The agricultural practice of raising domesticated animals (cattle, sheep, goats, pigs, poultry, etc.) for food, fiber, labor, and other products.
 - **Scope:** Includes breeding, feeding, health management, housing, and marketing of animal products.
 - **Production Systems:**
 - **Extensive:** Large land area, low stocking density (e.g., grazing cattle).
 - **Intensive:** High stocking density, controlled environment (e.g., poultry barns).
 - **Mixed:** Combination of grazing and supplemental feeding.
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2. Main Types of Livestock

Species	Primary Products	Typical Production System
Cattle	Beef, milk, leather	Pasture-based, feedlot, dairy farms
Sheep	Meat (lamb/mutton), wool, milk	Grazing, semi-intensive
Goats	Meat, milk, fiber (cashmere)	Smallholder, mixed grazing
Pigs	Pork, lard	Intensive indoor housing, free-range
Poultry	Meat (broiler), eggs, feathers	Broiler houses, cage-free, free-range
Equines	Work, transport, breeding	Pasture, stable housing

3. Economic Importance

1. **Food Security** – Provides high-quality protein (meat, milk, eggs).
 2. **Income Generation** – Source of cash for smallholders and large agribusinesses.
 3. **Employment** – Direct (farm labor, veterinarians) and indirect (feed mills, processing).
 4. **By-products** – Manure (fertilizer), hides, wool, gelatin, bio-energy.
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4. Basic Production Cycle

1. Selection & Breeding

- Choose genetics for desired traits (growth rate, disease resistance, milk yield).
- Use artificial insemination, natural mating, or embryo transfer.

2. Housing & Environment

- Provide shelter, ventilation, temperature control, and bedding.
- Design pens to minimize stress and injury.

3. Nutrition

- Formulate rations based on species, age, production stage.
- Balance energy, protein, vitamins, minerals, and water.

4. Health Management

- Vaccination schedules, parasite control, biosecurity protocols.
- Regular monitoring for signs of disease.

5. Record Keeping

- Track births, weights, feed intake, health events, and production outputs.
- Data support decision making and traceability.

6. Harvest & Marketing

- Slaughter, milking, egg collection, wool shearing, etc.
- Follow food safety standards and market requirements.

5. Key Management Principles

Area	Best Practices
Genetics	Use proven sire/dam lines; maintain herd book.
Nutrition	Conduct feed analysis; adjust rations seasonally.

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Area

Best Practices

Housing

Ensure adequate space (e.g., 1.5m² per pig), proper drainage, and predator protection.

Health

Implement a herd health plan; isolate new or sick animals.

Environmental

Impact

Manage manure (compost, anaerobic digestion); control runoff; adopt rotational grazing.

Animal Welfare

Provide enrichment, minimize handling stress, follow welfare certification guidelines