



Department of Animal Husbandry and Dairying
Ministry of Fisheries, Animal Husbandry and Dairying
Government of India

SCIENTIFIC MANAGEMENT OF **POULTRY**



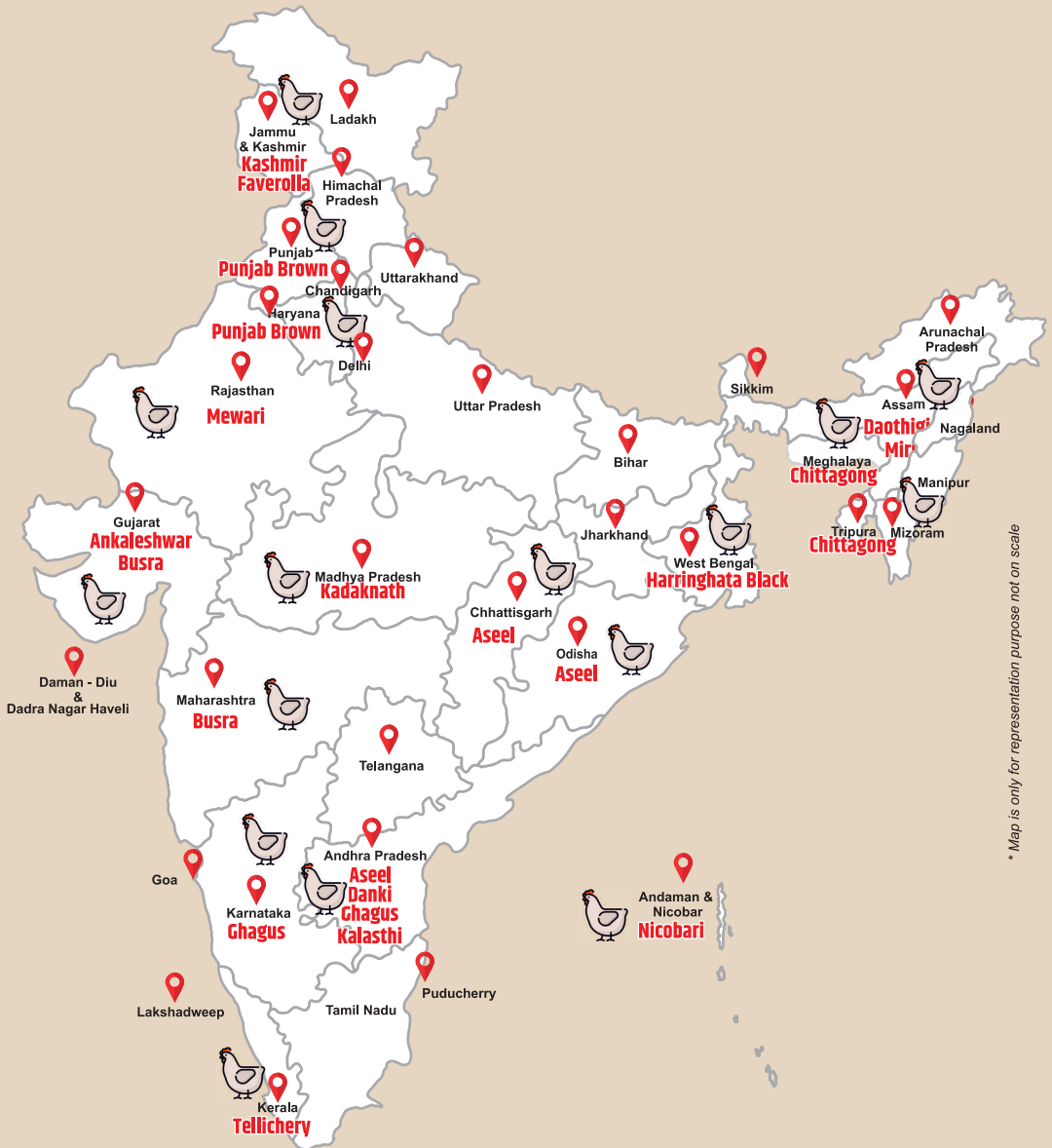
POULTRY FARMING

Poultry farming is integral to the agricultural economy, providing a significant source of protein through eggs and meat. This guide focuses on the scientific management of four types of

poultry: indigenous, layers, backyard Poultry, and broilers. Proper management practices ensure high productivity, health, and welfare of the birds.



REGISTERED POULTRY BREEDS IN INDIA



* Map is only for representation purpose not on scale

As per 2019 Census:

- The total Poultry in the country is **851.81 million** in 2019, increased by **16.8%** over previous Census.
- The total Backyard Poultry in the country is **317.07 million** in 2019, increased by **45.8%** over previous Census.
- The total Commercial Poultry in the country is **534.74 million** in 2019, increased by **4.5%** over previous Census.

Breeding Management

- **Layers:**
Select high egg-producing breeds like Leghorns. Implement controlled breeding programs.
- **Backyard Chickens:**
Use dual-purpose breeds such as Australorps, Sussex, Rhode Island Red. Natural breeding is common.
- **Broilers:**
Opt for fast-growing breeds like Cornish Cross. Focus on traits like growth rate and feed efficiency.
- **Indigenous Breeds:**
Breeds such as Aseel, Kadaknath, and Naked neck are known for their adaptability and disease resistance. They require less intensive management.



Factors Affecting Nutritional Needs

- **Age:** Poultry's nutritional needs evolve as they grow. Chicks have higher protein requirements for rapid growth, while adult birds might require different nutrient ratios for maintenance and production.
- **Weight:** Birds of different sizes have varied metabolic rates and energy requirements. Adjusting feed based on weight ensures optimal nutrition and prevents excess weight gain.
- **Purpose (Meat, Egg Production):** Birds raised for meat need diets that promote efficient muscle development, while those raised for egg production require diets rich in calcium and other nutrients essential for eggshell formation.

Nutritional Management

Proper Feed Management plays a pivotal role in the success of poultry farming operations. It goes beyond the simple act of providing food to your birds. Instead, it involves a deep understanding of the nutritional needs of your poultry, meticulous planning of feed rations, and the implementation of effective feeding strategies. This introductory section aims to emphasize the significance of proper feed management in poultry farming.



Breed

1 Indigenous Breeds:

- Utilize local feed resources such as leftover grains and agricultural by-products.
- **Feed Consumption:** Typically lower due to hardiness and adaptability to local conditions.



2 Layers:

- **Starter Feed (0-6 weeks):** 18-20% protein.
- **Grower Feed (6-20 weeks):** 16-18% protein.
- **Layer Feed (20+ weeks):** 16-18% protein, with calcium supplements for eggshell formation.
- **Feed Consumption:** Approximately 100-110 grams per bird per day.



3 Backyard Chickens:

- Balanced diet with 16-18% protein for adults.
- Access to pasture or forage can supplement feed.
- **Feed Consumption:** Around 120 grams per bird per day.



4 Broilers:

- **Starter Feed (0-3 weeks):** 22-24% protein.
- **Grower Feed (3-6 weeks):** 20-22% protein.
- **Finisher Feed (6 weeks to market):** 18-20% protein.
- **Feed Consumption:** Around 1.6-2.0 kg per bird over the growing period (6-8 weeks).



Housing and Environmental Management

1. Indigenous Breeds:

- Simple shelters with good ventilation.
- Access to free-range or semi-intensive systems.
- Ensure protection from predators and harsh weather conditions.

2. Layers:

- Provide 1.5-2 SQ. Ft. per bird by maintaining in deep litter system.
- Maintain proper ventilation and lighting (16 hours of light per day).
- Use perches and nesting boxes.

3. Backyard Chickens:

- Provide at least 4 SQ. Ft. per bird in the coop.
- Ensure access to outdoor space for foraging.
- Use predator-proof enclosures.
- Provide nest boxes.

4. Broilers:

- Provide 0.5-1 SQ. Ft. per bird.
- Maintain optimal temperature (32°C initially, reducing to 21°C by week 5).
- Ensure good ventilation to reduce ammonia build-up.
- Use adequate litter.

Health Management:

Disease Prevention:

- Implement strict biosecurity measures. Vaccinate against common diseases and monitor for signs of illness.

Veterinary Care:

- Regularly consult with a veterinarian to manage flock health and develop disease prevention strategies.



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