

Antibiotic-ResidueFree Poultry Production

Sustainable Approach for Broilers & Eggs

Healthy, Safe & Sustainable Farming

Presented by
Dr. Mahendra Singh



Introduction

→ Why antibiotic-residue free production?

1. **Consumer demand for safe food:** Modern consumers are increasingly health-conscious and prefer poultry products free from harmful residues, ensuring safe nutrition for their families.
2. **Rising antibiotic resistance:** Excessive use of antibiotics in animal farming contributes to antimicrobial resistance, a major global health threat. Antibiotic-free production reduces this risk.
3. **Market advantage for premium, residue-free products:** Producing antibiotic-free meat and eggs positions a brand in the premium segment, building customer trust and opening export opportunities.



Chick Quality

1. **Source from certified hatcheries:** Only procure chicks from disease-free, well-managed hatcheries to prevent vertical disease transmission.
2. **Uniformity and early care:** Ensure chicks are healthy, uniform in weight, and receive proper brooding care and nutrition.
3. **Early growth monitoring:** Track chick growth, mortality, and behavior during the first week for early issue detection.



Shed Biosecurity

1. **Controlled access:** Limit entry of visitors, enforce PPE, and provide disinfectant footbaths at entrances.
2. **Pest control:** Implement strict rodent, insect, and wild bird control to reduce disease carriers.
3. **Hygiene cycle:** Follow all-in-all-out system, with deep cleaning and disinfection between flocks.



Water Quality

1. **Clean and potable water:** Provide water free of bacterial contamination, tested at regular intervals.
2. **Water treatment** by Food & Pharmaceutical grade salt, maintaining GUT health.
3. **Disinfection methods:** Use chlorine, UV treatment, or organic acids to ensure microbial safety.
4. **Pipeline maintenance:** Prevent biofilm buildup in drinker lines with regular cleaning and use of sanitizers.



Temperature & Environment

1. **Brooding management:** Maintain recommended temperature profiles for chick comfort and growth.
2. **Stress reduction:** Use fans, foggers, and cooling pads to reduce heat stress during hot conditions.
3. **Humidity & litter:** Keep humidity between 50–70% and litter dry to prevent respiratory and digestive diseases.



Feed Quality

1. **Balanced nutrition:** Use antibiotic-free, nutrient-rich feed with essential proteins, vitamins, and minerals.
2. **Growth promoters:** Incorporate probiotics, prebiotics, and enzymes as natural alternatives to antibiotics.
3. **Contaminant control:** Include toxin binders to reduce risks of aflatoxin and mycotoxin contamination in feed.



Air Circulation

1. **Ventilation systems:** Install cross or tunnel ventilation systems to provide fresh air and remove excess gases.
2. **Ammonia control:** Maintain ammonia below 25 ppm to prevent respiratory distress and eye irritation in birds.
3. **Comfort balance:** Ensure airflow doesn't create cold stress, while keeping barns odor-free and dry.



Vaccination & Health Monitoring

1. **Targeted vaccinations:** Protect flocks against Newcastle Disease, Infectious Bronchitis, Marek's, and IBD through timely vaccination.
2. **Regular checks:** Conduct routine sero-monitoring and necropsies to detect issues early.
3. **Natural health support:** Use probiotics, herbal extracts, and essential oils to strengthen immunity.



Additional Suggested Points

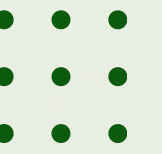


Litter Management:
Dry litter prevents bacterial growth and reduces ammonia production.

Record Keeping:
Maintain detailed records of feed intake, weight gain, and mortality for analysis.

Animal Welfare:
Reduce stress by maintaining correct stocking density and good welfare practices.

Sustainability:
Recycle poultry litter into compost or biogas for environmentally friendly disposal.



→ Feed cost and quality control

Producing antibiotic-free birds requires toxin-free, balanced feed which is more expensive and harder to monitor.



Industry Challenges & Solutions

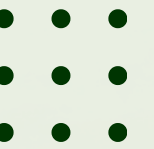
Why many poultry producers struggle with antibiotic-free production?

→ Disease management issues

Without antibiotics, farmers face higher risks of bacterial outbreaks such as colibacillosis and salmonella.

→ Higher mortality and slower growth

Farmers often rely on antibiotics to ensure faster growth and lower mortality. Removing them can reduce performance if management is poor.



The Future of Farming Starts Now



drmsingh_23965@yahoo.com



[linkedin.com/in/dr-mahendra-singh-2364407a](https://www.linkedin.com/in/dr-mahendra-singh-2364407a)



7999697189