

Summer Management in Poultry

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Introduction:

Summer is one of the most challenging seasons for poultry farming. High environmental temperatures, combined with humidity, can lead to heat stress, reduced feed intake, poor growth, lower egg production, decreased fertility, and increased mortality. Effective summer management practices are essential to maintain bird health, welfare, and farm profitability.

Understanding Heat Stress

Heat stress is one of the most significant environmental challenges affecting poultry production during the summer months. Unlike mammals, poultry birds do not possess sweat glands and therefore cannot dissipate excess body heat through sweating. Instead, they regulate body temperature primarily by panting and by releasing heat through unfeathered body parts such as the comb, wattles, shanks, and feet. When environmental temperatures and humidity exceed the birds' thermoneutral (comfort) zone, these cooling mechanisms become inadequate, resulting in heat stress.

physiological functions by reducing feed intake, increasing water consumption, altering metabolism, suppressing immune function, and impairing growth and reproductive performance. In laying hens, it often leads to reduced egg production and poor eggshell quality, while in broilers it decreases weight gain and feed efficiency. If prolonged or severe, heat stress can increase disease susceptibility and mortality, causing substantial economic losses to poultry producers.

Common Signs of Heat Stress

- ☞ Panting and rapid breathing
- ☞ Wings held away from the body
- ☞ Reduced feed consumption
- ☞ Increased water intake
- ☞ Lethargy and weakness
- ☞ Decline in egg production and shell quality
- ☞ Increased mortality in severe cases

Summer Management Practices:

1. Ensure Adequate Ventilation

Proper ventilation is the first line of

Heat stress disrupts normal defence against heat stress. Increase air

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movement using exhaust fans, tunnel ventilation, or natural cross-ventilation. Clean air inlets and outlets regularly to maintain efficient airflow.

2. Provide Cool, Clean Drinking Water

Water intake may double during hot weather. Supply fresh, cool, and clean water throughout the day. Flush water lines frequently to prevent warming, and ensure drinkers are functioning properly.

3. Adjust Feeding Schedule

Offer feed during the cooler hours of the day, such as early morning and late evening, when birds are more likely to eat. Avoid feeding during the hottest part of the afternoon.

4. Improve Nutritional Management

Use highly digestible feed ingredients to reduce metabolic heat production. Supplement diets with vitamins C and E, electrolytes, and essential minerals to support hydration, antioxidant status, and stress tolerance. Maintain balanced protein and energy levels without excessive nutrient density that may increase heat production.

5. Reduce Stocking Density

Overcrowding limits air circulation and increases heat accumulation. Maintain recommended stocking densities to improve comfort and reduce competition for water and feed.

6. Cooling Measures

Use foggers, misters, sprinklers, or evaporative cooling pads where suitable. Shade roofs and walls with reflective materials or insulation to minimize heat gain. Planting trees around poultry houses can also reduce environmental temperature.

7. Maintain Litter Quality

Keep litter dry and loose. Wet litter increases humidity and ammonia levels, further aggravating heat stress and respiratory problems.

8. Minimize Bird Disturbance

Carry out vaccination, transportation, catching, and other stressful operations during the cooler parts of the day. Avoid unnecessary handling during peak temperatures.

9. Strengthen Biosecurity

Heat stress weakens immunity, making birds more susceptible to disease. Maintain strict sanitation, disinfect equipment regularly, and follow appropriate vaccination and health-monitoring programs.

Management Tips for Layers

In laying flocks, heat stress often results in reduced egg production, poor eggshell quality, and smaller egg size. Adequate calcium supplementation, continuous access to cool water, and balanced nutrition help minimize production losses. Providing sufficient feeder and drinker space ensures all birds can eat and drink comfortably.

Management Tips for Broilers

Broilers are particularly vulnerable because of their rapid growth and higher body weight. Efficient ventilation, careful stocking density, electrolyte supplementation, and proper litter management are critical to maintaining growth performance and reducing mortality.

Conclusion

Successful summer poultry management requires a combination of proper housing, ventilation, nutrition, hydration, and health care. These practices improve bird welfare, maintain production performance, and reduce economic losses during periods of high environmental temperature. Farmers who prepare for hot weather by implementing preventive measures can significantly reduce heat stress, improve bird welfare, sustain productivity, and enhance overall profitability. Careful monitoring of bird behavior and timely intervention remain the keys to successful poultry production during the summer season.

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