



Heat Stress in Poultry Farming

The risk of heat stress in poultry

We are in the midst of summer, and extremely hot days during these months can cause significant problems in the poultry farming business. Heat stress in poultry can be deadly if it goes unnoticed and/or unmanaged. As days get hotter, poultry farmers need to be on alert and watch their flock frequently for signs of heat stress.

Heat stress occurs at all ages and in all types of poultry birds. However older birds, heavy breeds and broilers are typically more susceptible to heat stress. Under high temperature conditions, birds find it difficult to cope with stress. This condition does not require a farmer to administer antibiotics at all, but rather proper management has to be put in place to mitigate the effects of this threat.

What is heat stress?

Birds are “heat stressed” when they find it difficult to achieve a balance between body heat production and body heat loss. A bird’s body temperature must remain within the range of 40°C - 42°C (degrees Celsius); anything above this, the bird will die. This may lead to flock losses and reduced enterprise profitability.

As a poultry farmer, your goal is to manage the birds such that they produce optimally, in order to make a profit. Therefore, proper and sound management is required to sustain your poultry farming business.

Signs of heat stress

When birds are heat-stressed they show the following symptoms:

- i) Reduction in feed intake
- ii) Increase in panting (quick breaths)
- iii) Increase in water consumption
- iv) Birds move away from themselves
- v) The skin colour becomes dark
- vi) Birds lift their wings away from their bodies to expose any areas of skin that have no feathers
- vii) Slow growth is observed in brooders
- viii) Birds experience diarrhoea as a result of too much water intake than usual

Effects of heat stress

Heat stress is very detrimental to poultry enterprises as it results in the following impacts:

- i) Reduction in the birds' production (meat and eggs) due to reduction in feed intake
- ii) Reduction in egg size (smaller eggs) and increase in poor egg shell quality , resulting in more damaged eggs
- iii) High mortality in birds
- iv) Poor growth in brooders due to poor feed conversion rate

Managing heat stress:

Farmers have no control over the weather. However, the following tips can help to manage heat stress in your flock:

- i) The poultry house (coop) should be designed in such a way that the longest side faces the direction of the wind. This will facilitate even ventilation, making the birds receive fresh air evenly. Hence, proper ventilation in respect of the orientation of the poultry house should be achieved;
- ii) Always protect your flock from the sun during summer through the use of shade. When deciding on the location of the poultry house, it is advisable to choose an area with trees to provide sufficient shade and provide relief for the flock from the heat;
- iii) Clean, cool (room temperature) and drinkable water must be served to re-hydrate the birds, as too much water is lost during panting;
- iv) Reduce stock density to create more space so as to minimise loss of heat;
- v) During heat stress, feed consumption is reduced. It is best to feed birds during the cooler hours of the day;
- vi) Add Moringa Oleifera (if available) and vitamins (stress pack) in water preferably seven (7) days a month to reduce all kinds of stress.

In conclusion, poultry farmers should be very observant to detect heat stress in the flock before it becomes life threatening for the birds.

Farmers are advised to stop guessing and rather liaise with the nearest state veterinary office for disease confirmation.

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