

**OBSERVATION OF ENVIRONMENTAL  
FACTORS AND LIVE PERFORMANCE IN  
ENVIRONMENTAL CONTROL BROILER  
HOUSES DURING HOT WEATHER**

A dissertation submitted to the  
Faculty of Animal Science and Export Agriculture,  
Uva Wellassa University  
in partial fulfillment of the requirements of  
the degree of  
Bachelor of Animal Science

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**2010**

## ABSTRACT

Broiler building typology associated with the local characteristics (climate, topography and surrounding vegetation) and handling systems (stocking density, curtains, equipment and nutrition) influence the inside environment. This study is mainly focused to analysis the main environmental factors which effect to live performance of Broilers in hot weather. Under a less stressful environment, animals can utilize more feed efficiently. But Heat stress is a major concern of the broiler industry due to the resulting decreased growth, feed intake and increased FCR ratio and mortality. Heat exposed bird's decrease feed intake in order to reduce metabolic heat production and resulting in slower growth. Heat is added to the air of a building by the body heat production, heat from electric lights and motors, sometimes heat from the roof and walls, and heat from fermentation of the litter or accumulated droppings. Of these, the dominant source of heat is body heat. Maintaining proper temperature to promote efficient growth is a key to profitable Broiler production. In this study Broilers in three broiler hoses were used by giving same environmental conditions for them. Then temperature and relative humidity of broiler house, mortality, and panting and water intake were measured. According to the results shows significantly ( $p < 0.05$ ) that water intake and relative humidity are the factors that cause for the Broiler's weight gain. Because of that have to provide adequate ventilation and stimulating water consumption is essential. It will help to decrease the heat generation from the metabolic activities. In addition to heat-stress mortality, economic losses associated with broiler heat stress also occur as a result of lowered growth rate and decreased feed efficiency. Therefore, it is natural for producers want to stimulate feed consumption in hot weather. Any management technique which promotes feed consumption or increased activity during the peak hot periods may be counter-productive. The extra feed consumed will increase the bird's heat load and probably result in additional mortality.

**Key words:** Broiler, Hot weather, Relative humidity, live performances