Observations on Environmental Factors and Live Performance of Broilers in Environment Controlled Broiler Houses during Hot Weather

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Heat stress is a major concern of the broiler industry as it causes decrease in growth, reduced 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. Maintaining proper temperature to promote efficient growth is a key to profitable broiler production. This study focused on analyzing the main environmental factors that affect the behavior of broilers in hot weather. In this study broilers were kept in three broiler houses which had the same environmental conditions. The temperature and relative humidity of broiler house, mortality, and water intake of birds were measured during a period of three months. According to the results water intake and relative humidity are the factors that significantly affect ($P<0.05$) the weight gain of broilers. 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 consumption efficiency. Any management technique which promotes feed consumption or increased activity during the peak hot periods may be counter-productive in a broiler house. The extra feed consumed will increase the bird's heat load and probably result in additional mortality. The study indicates that controlling heat inside broiler units during hot weather is important to increase the broiler productivity

Key words: Broiler, Hot weather, Relative humidity, Live performances