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A PRELIMINARY STUDY ON POTENTIAL USE OF WATER HYACINTH (*Eichornia crassipes*) FOR THE REPLACEMENT OF SOYBEAN MEAL IN BROILER FINISHER RATION

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A study was carried out to find out the possibility of utilizing the water hyacinth (*Eichornia crassipes*) to replace the soybean meal in the broiler finisher ration. This study was conducted at the Livestock Farm, Department of Animal Science, Eastern University Sri Lanka, for a period of 45 days beginning from January to March 2008. The water hyacinth was (*Eichornia crassipes*) collected from Batticaloa lagoon area. The proximate composition of the dried water hyacinth was: dry matter15.8% crude protein 10.7%, crude fiber 17%, nitrogen free extract 54.7%, ether extract 2.7% and ash 14.7%. The experiment had five treatments including a control ration (T_0 -100% soybean meal). In the experimental ration soybean meal was replaced by water hyacinth on proportion of 10% (T_1), 20% (T_2), 30% (T_3) and 40% (T_4). Measurements were taken for feed consumption and weight of birds. The effects of treatments on feed intake, weight gain, feed conversion efficiency, cost of production, total income and profit per kg of carcass were studied. Based on the results it was concluded that 30% of the soybean meal can be replaced by the water hyacinth because that combination lowest feed consumption (0.85±0.44 kg/bird/week), highest weight gain (0.39±0.12 kg/week), lowest FCE (2.18±0.11), lowest cost of production (161.81±5.23 Rs/kg carcass) and highest profit (41.23±1.23 Rs/kg carcass).

Key words: broiler, feed conversion efficiency, soybean meal, water hyacinth.

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