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### **Effect of Dietary Garlic on Growth Performances and Blood Cholesterol Levels of Broiler Chickens**

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Meat plays a significant role in improving the nutritional status of the people. Meat is an excellent source of high-quality and readily digestible protein. Presence of cholesterol in meat is a main factor discouraging the consumption. Therefore it is a timely need to reveal measures to produce meat with low cholesterol level as it will make meat more attractive to the people. Garlic is considered having cholesterol lowering effect. The effect of feeding garlic on growth performance and lipid profile in broilers was investigated. Fourteen days old hundred and fifty broiler chicks were randomly allocated to five dietary treatments in a complete randomized design with three replicates per treatment. A normal commercial broiler feed was used as the control diet and four test diets were formulated by incorporating garlic powder to control feed at 2, 3, 5 and 7% levels. Feed intake was unaffected by garlic. The weight gain, feed conversion efficiency and the dressing percentage were also not affected by garlic in the diet. Results suggest that dietary garlic powder up to 7% had no adverse effects on growth performance of broiler chicken.

Serum total cholesterol level was lowered ( $p < 0.05$ ) by 7.8, 8.0, 8.3 and 8.5% in birds fed with 2, 3, 5 and 7% of dietary garlic respectively. Birds fed 7% garlic diet showed a decrease in low density lipoprotein (LDL) level by 24 %. High density lipoprotein (HDL) level was increased with increasing levels of garlic. Serum triglyceride level was reduced by 33% in the birds fed with 7% garlic. The results of this trial confirm that garlic alter serum lipid and cholesterol levels. Feeding dietary garlic reduced lipid and cholesterol levels of broilers without altering growth performances. Acknowledgement: Financial assistance by IRQUE project QEF (Agriculture- Sabaragamuwa) grant.