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## The effect of thymus extracts on growth performance, liver enzyme and serum lipid profile in broiler chickens

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Given the hazards of using chemical drugs in various areas of broiler breeding including drug resistance, high cost and many other side effects, the need for herbal medicines has increased in all animal health issues. Thymus with scientific name of *Thymus vulgaris* is a phytochemical compound. This plant has anti-bacterial and growth stimulator characteristics. Considering the widely use of phytochemical compounds as alternative to chemical drugs in human diet and livestock industry, this study tried to evaluate the impact of thymus extracts on growth performance, serum lipid profile and liver enzymes. In this regard a number of 240 one-day-chicks of Ross 308 broilers were housed in equal conditions. They were classified in two groups with three replicates (40 chicks per group). The experimental groups were as follows: control group, received maize-soybean diet; thymus group, received maize-soybean diet + thymus extract. The studied traits included feed intake, weight variation, Feed Conversion Ratio (FCR), serum lipid profile and liver enzymes. On 41<sup>st</sup> day, 25 chicks were selected randomly and their blood samples were obtained. The results showed that using thymus as feed additives improve weight gain and Feed Conversion Ratio (FCR) ( $p < 0.05$ ) and exert positive effect on lipid profile and liver enzymes compared to the control ( $p < 0.05$ ).

### Recent Publications

1. Abdulkarimi R, Daneshyar M and Aghazadeh A (2011) Thyme (*Thymus vulgaris*) extract consumption darkens liver, lower blood cholesterol, proportional liver and abdominal fat weights in broiler chickens. Italian Journal of Animal Science 10:101-105.
2. G A M Al-Kassie (2009) Influence of two plant extracts derived from thyme and cinnamon on broiler performance. Pakistan Veterinary Journal 29:169-173.
3. Ghasemi R, Zarei M and Toriki M (2010) Adding medicinal herbs including garlic (*Allium sativum*) and thyme (*Thymus vulgaris*) to diet of laying hens and evaluating productive performance and egg quality characteristics. American Journal of Animal and Veterinary Sciences 5:151-154.
4. Ocak N, Erener G, Burak A K F, Sungu M, Altop A and Ozmen A (2008) Performance of broilers fed diets supplemented with dry peppermint (*Mentha piperita* L.) or thyme (*Thymus vulgaris* L.) leaves as growth promoter source. Czech Journal of Animal Science 53:169-175.
5. Rahimi S, Teymouri Zadeh Z, Karimi Torshizi M A, Omidbaigi R and Rokni H (2011) Effect of three herbal extracts on growth performance, immune system, blood factors and intestinal selected bacterial population in broiler chickens. Journal of Agriculture Science Technology 13: 527-539.

### Biography

Amir Reza Rajabi is DVM student from Babol Azad University, Babol, Iran. His main area of research interests includes the effect of the herbal medicines in poultry health issues.

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