

EFFECT OF DIETARY FENUGREEK SEEDS OR YEAST CULTURE ON DIGESTIBILITY COEFFICIENTS AND THE ECONOMICAL EFFICIENCY OF GROWING JAPANESE QUAIL DIET**Abd El-Latif SA, Ghally KA and Shoukamy MO**

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Four hundred 51 day old, unsexed growing Japanese quail were performed to evaluate the effect of adding the levels of 0.5 or 1% of each source from some feed additives (FA) i.e. Fenugreek seeds or yeast culture to Japanese quail diet on some productive performance and carcass characteristics. Birds were divided equally into six groups containing 75 birds each. Each group contained three replicates of 25 birds. Each treatment of the tested diets contained one source of FA at level of 0.5% or 1% except the 6th treatment contains mixture of these previous FA at levels of 0.5 and 0.5% of both FA. The control diet had no additions. The experiment was terminated when birds were six weeks old. At the end of the experiment (six weeks of age), a digestion trial was done to estimate how far dietary treatment could affect the digestibility of nutrients. The economical efficiency was calculated by Egyptian pound (LE) according to the prices of year 2015. The data revealed that, Birds fed dietary 1% yeast culture recorded the best ($P \leq 0.05$) value of dry matter digestibility followed by birds fed dietary 0.5% yeast culture compared with other dietary treatments. Moreover, Birds fed either yeast culture at all levels or mixture of yeast culture and fenugreek seed in their diets recorded the greatest ($P \leq 0.01$) crude fiber and crude protein digestibility compared with other dietary treatments. The greatest ($P \leq 0.01$) values of ether extract digestibility were recorded for birds fed diets contain 0.1% yeast culture and 0.5% fenugreek seed. Adding fenugreek seed to growing Japanese quail diets at level of 0.5% recorded the highest values of economical efficiency, relative economical efficiency percent and net revenue followed by chicks fed control diet compared with other dietary treatments.

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