

# SUPPLEMENTATION OF MAGMEAL AS ALTERNATE ANIMAL PROTEIN TO JAPANESE QUAILS

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**Abstract**—Maggot meal, popularly magmeal is a core product consisting of dried defatted larvae that is ground into a high protein larvae meal. A study was conducted on 240 Japanese quail birds (*Coturnix coturnix japonica*) from day old to six weeks of age to evaluate the effect of magmeal supplementation on their haemato biochemical indices, intestinal physiology and growth performance at Poultry Research Station, Madhavaram Milk Colony, Chennai – 600 051. The birds were divided into four groups with 20 birds each in each group in three replicates where they were fed with quail brooder and finisher mash with varying proportion of fishmeal and magmeal. The analysis by high pressure liquid chromatography revealed magmeal as a rich source for both essential and non essential amino acids. The neutral odour and nutty flavour of magmeal contributed to the improving palatability thereby augmenting the nutritional impact for the quails. Dietary inclusion of magmeal replacing fishmeal at 100 per cent at six weeks of age enhanced the tryptic and lipase activity. It improved the morphology of small intestine in Japanese quails thereby facilitating improved digestion due to high crude protein in the magmeal. It had a positive impact on hematological parameters and improved the serum albumin and globulin in Japanese quails. It did not negatively affect the feed efficiency and livability in Japanese quails. It emerged as a definite and great nutritive animal feed when compared to the traditional meat meal fed to the Japanese quails. Thus magmeal aptly evolves an economic animal protein source for replacement of fish meal to quail ration.