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An evaluation of poultry viscera as an alternative of fishmeal among common fish feed ingredients

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Abstract

A study was conducted to observe the nutritive value of fish feed ingredients. Easy availability, low cost, high digestibility and high nutrient contents are the major considerations in selecting the fish feed ingredients for feed formulation. Suitable feeding strategy is not only important to improve of fish growth, but also reducible of fish costs and environmental pollution. A range of commonly used feed ingredients for fish farming was available in the markets that include fishmeal, different oilseed cakes, rice bran, soybean meal, broken rice, pulse, maize, wheat bran and wheat flour etc. The intensive nature of modern poultry production and processing tends to concentrate high quality byproducts, and this has stimulated their recycling.

During the present study the protein percentage of the poultry viscera, fishmeal , mustard oil cake, wheat bran, wheat flour and rice bran was estimated 57.90-63.44 %; 52.01-58.38 %; 33.79-35.93 %; 14.90-15.69 %; 14.45-15.93 %; 09.54-13.21 % respectively. The crude lipid percentage was recorded as 09.22 to 16.49% in poultry viscera, 03.74 to 11.80% in fishmeal , 09.73 to 13.82% in mustard oil cake, 04.12 to 09.59% in wheat bran, 02.74 to 03.97% in wheat flour and 06.78 to 13.32 in rice bran. The analyzed ash contents was recorded as 04.97 to 12.90 % in poultry viscera, 15.16 to 34.14 % in fish meal. 6.79 to 9.38 % in mustard oil cakes , 2.52 to 8.76 % in wheat bran, 02.10 to 03.64 % in wheat flour and 13.79 to 17.86 % in rice bran .

The feed ingredients like mustard oil cake, wheat bran, rice bran and wheat flour had no significant variations in their proximate composition. The composition of the experimented ingredients indicated crude protein as the main component as the feed cost appears to be one of the major constraints against greater expansion of fish farming. It is therefore imperative that the feed should substitute the high cost fish-meal protein with low cost poultry viscera protein sources, those are available and rich in protein level to reduce feed cost and recycle the poultry wastes.