

An overview of the importance of using phytase in the diet of fish

Abedi, S.Z.*¹. Yeganeh, S¹. Moradian kochaksaraii, F². Orajji, H¹.

¹ Department of Fisheries, Faculty of Fisheries and animal science, Sari Agricultural Sciences and Natural Resources University, Iran

² ¹ Department of Cell and Molecular Biology, Sari Agricultural Sciences and Natural Resources University, Iran

Email: abedi10629@yahoo.com

Fishmeal is One of the important protein sources in fish diet particularly in carnivorous fish species. Increased demand and unsustainable resources and the high price of fish meal with aquaculture development pointed out need for research to find alternative protein sources. The use of plant proteins (such as soy flour, soy protein concentrate) to replace fishmeal in the diet is one of the most important issues in aquaculture. Grains and other materials and vegetable protein feed for livestock and poultry make up the bulk entirely should not be used by the target population. All plant materials for animal feed in the form of phytic acid or phytate phosphorus used that should not be used for monogastric animals. With this interpretation we face with the restriction of the use of vegetable protein in the diet of fish, to eliminating of this problem, phytas enzyme under the family of phosphatases in the diet of fish is used. These enzymes to neutralize the negative effect of phytate on protein and nutrients in monogastric animal diets, increase the absorption of phosphorus. Therefore with the importance of Issue, this paper is paying to necessity using of this enzyme in the diet of fish.

Keywords: Fishmeal, plant protein, phytas enzyme, diet, aquaculture.