

Feed Given to the fish in Fisheries

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Introduction

The cultured fish are usually reared in a closed artificial environment, hence unlike the wild fish they are to be provided with suitable feed which helps them to grow and maintains the health of the fish. Hence feed given to the fish must have all the essential nutrients required for the healthy growth of fish. It must have amino acids, fats, minerals and vitamins. The feed have the compounds like fish iol, fish meal, plant and animal components. It is very important component of the industry as it alone decides the quality of the fish as it cannot get its food from any other sources.

Same kind of meal cannot be given all types of fish as there are herbivorous and carnivorous kinds of fish. The cultured herbivorous fish feed on the vitamins, minerals, plant proteins and vegetable oils. The carnivorous fish feed on vitamins, minerals, fish proteins and fish oils. Later the percentage of fish components in the feed decreased as it was observed that the number feed fed to the fish is much more as compared to its production, it would bring decline in the number of small fishes which are used for the purpose of feed. This would totally cause imbalance in the ecosystem. Hence researchers have come up with the substituents to this fish meal and fish oil thus conserving many species of fish. Previously the feed given to the carnivorous fish had 30-35% of fish meal and fish oil.

Fish meal has more than 40 essential nutrients and is a good source of protein which enabled the healthy growth of fish. The fish oil has omega 3 fatty acids like DHA and EPA. These essential fatty acids were not synthesized by the fish but are the obtained from the phytoplankton they usually feed on. The fish meal is replaced by the vegetable proteins like cotton seed protein, soy protein and the fish oil is replaced by the oils which are extracted from the algae and other marine microbes. The modern feed is dried form of pellets which are more sustainable and can be stored for long time.

The modern fish feed is prepared by mixing all the proteins and a binding agent and later they are made into small pellets and dried. After this the oils are added to these pellets and packed. Since the modern feed is taking over the traditional one, the industries producing these feed are increasing. The feed is made based on the conditions of the fish environment. Since most of the aquaculture and fisheries are dependent on this feed as food for fish the production will always done in larger amounts. The pellets are in dry form they can be stored and transported easily. In case of some specific species moist feed are also selected but there will be difficulty in case of storage as it is prone to spoilage. In few cases fish are directly given as feed to large fish like Sea bass, Salmon, toubot and trout etc., These help the fish to grow in a healthy way.