Animals

an Open Access Journal by MDPI

CiteScore: 5.2
Indexed in PubMed
Impact Factor: 2.7

Special Issue Reprint

Sustainable Feed Ingredients in Freshwater Aquaculture

Edited by: Zsuzsanna Sandor and Csaba Hancz

The cost of aquafeeds represents about 50–70% of the total production cost in intensive and semi-intensive freshwater aquaculture systems, and this has implications for the sustainable development of aquaculture. The decreasing proportion of fishmeal and fish oil in aquafeeds has coincided with an increase in the introduction of alternative protein meals and oils from a variety of sources, including plant, animal, microalgae, and insect sources. There is growing interest in incorporating agro-industrial by-products, agri-food waste, or products from circular economic chains into aquafeeds. However, these new resources cause several adverse effects on the physiology and metabolism of fish. On the other hand, some benefits can be obtained if we consider, for example, the increased digestibility or the presence of several bioactive compounds in these new resources.

This Collection provides an overview of the nutritional studies of freshwater fish, including the following:

(1) The influence of diet on fish performance and nutrient utilization.
(2) The influence of diet on the antioxidant defense system of fish.
(3) The relationship and interaction between dietary ingredients and gut microbiota.

mdpi.com/books/reprint/12246