



GSJ: Volume 9, Issue 11, November 2021, Online: ISSN 2320-9186

www.globalscientificjournal.com

REVIEW ARTICLES; UTILIZATION OF FISH OFFS FOR FEED FLOUR

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ABSTRACT

This article aims to examine the use of fish offal into flour for feed raw materials. The manufacturing process consists of steaming, drying, milling and filtering stages. The quality of the flour produced meets the standards as raw material for feed.

Keywords: Standards, raw materials, steaming, drying

INTRODUCTION

Waste generated from the activities of the fishing industry such as the surimi industry, the fillet industry and the canning industry include fish offal. So far, fish offal has not been widely used as a more economical product, just thrown away.

Utilization of fish offal is important in order to save the environment. Efforts to use that can be done is to make flour for feed ingredients. According to Irianto and Soesilo (2007, fish offal contains high protein and unsaturated fat, fish offal weighs 10-15% (depending on species) of fish biomass (Bhaskar and Mahendrakar 2008). This article aims to examine the utilization of fish offal into flour. for feed raw materials

Process of Making Feed Flour from The Fish Offal

Process of making fish meal from fish offal goes through several stages such as preparation of tools and materials, determination of samples, flouring of fish waste materials to the proximate test Referring to the research of Fahrizal and Ratna (2018) procedure Making feed flour is as follows:

1. Preparation of tools and materials
2. Sorting of fish offal waste to be used
3. Steaming
4. Drying
5. Milling
6. Screening
7. Drying in the sun
8. Packaging in containers

According to Afrianto and Liviawart (2005), there are at least 5 requirements that should be met in the selection of raw materials for packs such as , nutritional value, easy to digest, non-toxic, easy to digest roleh and is not a basic human needs

Nutrient Feed Ingredients

In Marantika study (2017) nutrient content of feed ingredients used in the feed formulas can be seen in Table 1.

Material	Conte nt Dry	Protein	Fat	Cont ent Ash	Crude Fiber	BETN	Energy (kcal / 100g)
flour fermented viscera tuna fish	92.99	66.53	7.43	6.69	0.69	11.66	408.03
Fish	meal 89.15	58.22	5.73	22.75	3.50	9.80	321.56

Soy flour	92, 83	33.63	22.41	5.30	8.41	30.25	457.07
Bran flour	89.72	12.02	8.69	13.44	29.79	36.05	271.96
Tapioca flour	91.59	0.14	0.04	0.05	0.57	99.19	398.76

Based on Table 1 above, the protein content of fish offal flour is higher than others. The high protein content indicates that fish offal flour is very good as a feed raw material. Cultivated fish both in the hatchery and rearing phases really need a high supply of protein to support their growth.

Conclusion

Based on the results of a literature study, information was obtained that fish offal can be made of flour for feed raw materials. The manufacturing process consists of steaming, drying, milling and filtering stages. The quality of the flour produced meets the standards as raw material for feed.

REFERENCES

- Afrianto. E., and E. Liviawaty., 2005. Fish Feed. Creation, Storage, Testing, Development. Canisius Publisher.
- Bhaskara N and N, S Mahendrakar. 2009. Protein hydrolysate from visceral waste proteins of catla (catla catla); Optimization of hydrysis conditions for a commercial neutral protease. Journal of Bioresource Technology 99: 4105-4111.
- Fahrizal, A and Ratna. 2018. Utilization of Puri Bridge Fish Auction Waste in Sorong City as Material for Making Fish Meal. Gorontslo Fisheries Journal. Volume 1 (2).
- Irianto, HE and I. Soesilo. 2007. Technology Support for the Provision of Fishery Products. Ministry of Marine Affairs and Fisheries, Jakarta, 20 pp.

Marantika, A, K. 2017. Effect of Substitution of Fermented Tuna Offal with Fish Meal in Feed Formulation on Growth of Catfish (*SeedsPangasius* sp.). Journal of Marine Cultivation. Ganesha University of Education.

Sihite, HH 2013. Study of Utilization of Fish Waste from Fish Auction Place (TPI) and Nauli Sibolga Traditional Market into Fish Meal as Raw Material for Animal Feed. Journal of Chemical Technology. University of Northern Sumatra.

Sjofjan, O., Suriwdiarto, Irfan, H., Aulanium. 1999. Engineering Fermentation Technology Mixed Tapioca Flour Factory (Gamblong) and Dried Chicken Manure (DW) as Poultry Livestock Material. Research Report. Faculty of Animal Husbandry. Brawijaya University. Poor.

