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Determination of nutritive value of shrimp wastes meal (Penaus semisulcatus)

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In the most countries where shrimp industry exist so that wastes are used in aquaculture and livestock diets. The shrimp wastes meal (SWM) is a very good resource of protein, mineral and other nutrients each of them have special applications. The SWM include about 35-45% of total of fresh shrimp productions. The SWM in the present conditions in Iran, is a good quality nutritive resource for livestock. No attempts has been made yet for using it. This research was carried out for determining the nutritive value of sieved and unsieved SWM of the Persian Gulf shrimp (P. semisulcatus). The chemical compositions included dry matter, crude protein, Ca, P, Ash, and EE determined by AOAC methods. The chemical analysis showed that CP, Ca, P, Ash and EE content of Sieved and unsieved SWM were 96, 47, 7.5, 1.38, 31, 3.4% and 96, 45, 9.26, 1.28, 36, 3.1% respectively. The Gross energy was measured by Calorimeter method and metabolizable energy by Sibbald method. The GE and ME content of the sieved and unsieved SWM were 3579±29.5, 1801 and 3459±15.9, 1703 kcal/kg respectively. The results showed that the SWM has low quality energy and more minerals in comparison with reported other shrimp species. Comparing other factors measured there are differences with other shrimp species that probably depends on species, production season, physiological conditions, diet and shrimp sex maturity.

Keywords: Shrimp wastes meal, Nutritive value, Chemical compositions

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