

**PEMANFAATAN LIMBAH CANGKANG KEPALA UDANG
(*Dendrobranchiata*) SEBAGAI PENAMBAHAN PADA
PEMBUATAN PELET IKAN YANG BERBAHAN
DASAR MAGGOT (*Black Soldier Fly*)**

ABSTRAK

Jumlah cadangan bahan pakan semakin mahal menimbulkan permasalahan terjadinya krisis bahan pakan, mengakibatkan kegagalan panen. Pelet merupakan sumber pakan namun masih memiliki kelemahan yaitu penyediaan bahan pakan relatif tinggi. Untuk mengatasi masalah tersebut pelet dapat diolah dengan penambahan bahan baku yang relatif murah, mudah didapat dengan tujuan menaikkan nilai kadar protein. Pada penelitian ini limbah cangkang kepala udang sebagai penambahan pada pembuatan pelet yang berbahan dasar maggot. Tahapan penelitian ini meliputi persiapan bahan baku maggot dan limbah cangkang kepala udang dikeringkan dibawah sinar matahari, digiling hingga 60 mesh lalu ditambahkan cangkang kepala udang pada pelet maggot dengan variasi 2%, 2,5%, 5%, 7,5% dan 10%, kemudian dicetak manual dan dikeringkan di dalam oven dengan suhu 60°C selama ± 3 jam. Kemudian pelet dikarakterisasi berdasarkan ketentuan SNI 4087-2006 yang meliputi kadar protein, kadar air, kadar abu, daya apung, dengan nilai paling optimum berurut-turut yaitu 36,6%, 6.79%, 12,7%, dan 8 menit. Pelet dengan kualitas terbaik terdapat pada jenis pelet dengan campuran bahan baku pelet maggot + cangkang kepala udang 10%.

Kata Kunci : *Bahan Pakan Alternatif, Limbah Organik, Nilai Kadar Protein, Pelet, Pelet Magot.*

**UTILIZATION OF SHRIMP HEAD SHELL WASTE
(Dendrobranchiata) IN ADDITION TO MAKING
FISH PELLETS MADE FROM MAGGOT
BASE (Black Soldier Fly)**

ABSTRACT

The increasingly expensive amount of feed ingredients reserves is causing the problem of a feed ingredients crisis, resulting in crop failure. Pellets are a source of feed but they still have weakness, namely the relatively high supply of feed ingredients. To overcome this problem, pellets can be processed by adding relatively cheap, easily available raw materials with the aim of increasing the protein content. In this research, shrimp head shell waste was used as an addition to making maggot-based pellets. The stages of this research include preparing the maggot raw materials and shrimp head shell waste, drying them in the sun, grinding them to 60 mesh, then adding the shrimp head shells to the maggot pellets with variations of 2%, 2,5%, 5%, 7,5%, and 10%, then printed manually and dried in an oven with a temperature 60°C for ±3 hours. Then the pellets were characterized based on the provisions of SNI 4087-2006 which include protein content, moisture content, ash content, buoyancy with the most optimum values respectively 36,6%, 6,79%, 12,7% and 8 minutes. The best quality pellets are the pellet type with a mixture of maggot pellets + 10% shrimp head shells.

Keywords : *Alternative Feed Ingredients, Maggot Pellets, Organic Waste, Pellets, Protein Content Value*