



## **KUALITAS FISIK, KIMIA, DAN ORAGANOLEPTIK *PELLET* DENGAN *BINDER* DARI BEBERAPA JENIS UMBI**

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### **INTISARI**

Kualitas *binder* perlu ditingkatkan karena *binder* penting untuk mengurangi resiko pecah pada *pellet*. Penelitian ini dilakukan untuk memilih jenis umbi terbaik sebagai *binder pellet* dengan mengetahui kualitas *pellet* yang dihasilkan. Jenis umbi yang diamati yaitu talas, kentang, dan ubi jalar. *Pellet* diproduksi menggunakan mesin *pellet* jenis *flat die* tanpa dilengkapi alat *conditioning*. Bahan baku yang digunakan yaitu jagung, *soy bean meal* (SBM), bungkil kopra, daun singkong, molasses, batu kapur, dan garam. Bahan baku tersebut kemudian diformulasi dengan ketiga jenis umbi diatas, sehingga diperoleh tiga jenis *pellet* (*pellet* dengan *binder* talas, *pellet* dengan *binder* kentang, dan *pellet* dengan *binder* ubi jalar) dengan kandungan protein kasar (PK) dan energi yang sama. Hasil penelitian menunjukkan bahwa perbedaan jenis umbi menghasilkan *pellet* dengan nilai bahan kering (BK), serat kasar (SK), lemak kasar (LK), abu, bahan organik (BO), kekerasan, tekstur, warna, dan aroma *pellet* yang selisihnya kecil. *Pellet durability index* (PDI) dan kekerasan *pellet* dengan *binder* talas lebih tinggi daripada kentang (94,87%) dan ubi jalar (94,67%). Berdasarkan hasil penelitian dapat disimpulkan bahwa *binder* dari jenis umbi yang berbeda (talas, kentang, atau ubi jalar) menghasilkan *pellet* dengan kualitas kimia dan organoleptik *pellet* yang tidak begitu berbeda. *Binder* dari talas menghasilkan kwaitas fisik yang lebih baik daripada kentang dan ubi jalar karena *pellet* yang dihasilkan lebih tahan pecah dibandingkan kentang dan ubi jalar.

Kata Kunci: *Pellet*, Umbi, Kualitas, *Binder*



## **PHYSICAL, CHEMICAL, AND ORGANOLEPTIC QUALITIES OF PELLET USING DIFFERENCES TUBER TYPE AS BINDER**

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### **ABSTRACT**

Binder quality improvement was important, that because the binder was important to reduce risk rupture of pellet. This investigation purpose to get the best type tuber as pellet binder and the quality of the result. Taro, potato, and sweet potato were investigated to get its effect as binder. Pellet was produced by double crane small flat die pelletizer and without conditioning instrument. Pellet ingredients consisted of corn, soy bean meal (SBM), copra, cassava leaves, molasses, limestone, and salt. The pellet ingredients and binders was formulated to result three type pellets (pellet using taro as binder, pellet using potato as binder, pellet using sweet potatoes as binder) with same of crude protein (CP) level and energy level. Differences of tuber type as binder were produce pellet with dry matter (DM), crude fiber (CF), extract eter (EE), ash, organic matter (OM) content, hardness, texture, color, and odor were not too difference. Taro as binder has higher PDI (95.57%) than potato (94.87%) and sweet potato as binder (94.67%). It could be concluded, chemical and organoleptic of pellet were not too affected to chemical and organoleptic of pellet. Beside that, taro was better as pellet binder than potato and sweet potato, that because taro was more resistant from rupture than potato and sweet potato.

Key word: Pellet, Tuber, Quality, Binder