World Academy of Science, Engineering and Technology
International Journal of Animal and Veterinary Sciences
Vol:15, No:10, 2021

Improving the Quality of Casava Peel-Leaf Mixture through Fermentation with Rhizopus oligosporusas Poultry Ration

Authors : Mirnawati, G. Ciptaan, Ferawati

Abstract : This study aims to improve the quality of the cassava peel-leaf mixture (CPLM) through fermentation with Rhizopus oligosporusas poultry ration. This research is an experimental study using a completely randomized design (CRD) with four treatments and five replications. The treatments were cassava peel-leaf mixture (CPLM) fermented with Rhizopus oligosporus. The treatments were a combination of cassava peel and leaves with the ratio of; A (9:1), B (8:2), C (7:3), and D (6:4). The observed variables were protease enzyme activity, crude protein, crude fiber, nitrogen retention, digestibility of crude fiber, and metabolic energy. The results of the diversity analysis showed that there was a very significant ($p < 0.01$) effect on protease activity, crude protein, crude fiber, nitrogen retention, digestibility of crude fiber, and energy metabolism of fermented CPLM. Based on the results of the study, it can be concluded that CPLM (6:4) fermented with Rhizopus oligosporus gave the best results seen from protease activity 7,25 U/ml, 21.23% crude protein, 19.80% crude fiber, 59.65% nitrogen retention, 62.99% crude fiber digestibility and metabolic energy 2671 Kcal/kg.

Keywords : quality, Casava peel-leaf mixture, fermentation, Rhizopus oligosporus
Conference Title : ICAFST 2021 : International Conference on Animal Feed Science and Technology
Conference Location : Bali, Indonesia
Conference Dates : October 25-26, 2021