Potential Use of Black Soldier Fly Larvae (*Hermetia illucens*) As an Alternative Protein in Animal Feed

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Abstract. The combined effects of a growing human population and increasing demand for sustainable animal protein has led to many research and development related to black soldier fly larvae (BSFL) as an alternative protein source in animal feed. Apart from that, the BSFL also rich in lipids, vitamins and minerals, making them a good nutrient source for animal feed. The utilization of BSFL further develops and applies circular economy concepts, using sustainable, non-polluting and efficient biological process in converting organic waste into animal feed, biomass and fertilizer. Additionally, BSFL has the potential to reduce the cost of animal feed formulations by partially replacing soybean and/or fish meals. This is one of the primary reasons why insects like BSF are seen as viable alternative protein sources for animal feeds. Nevertheless, the use of BSFL in animal feed presents some issues and challenges in terms of processing (small scale vs large scale), variability and suitability of organic waste as feedstock and consumer acceptance towards the use of insects as feed ingredients. However, this should be considered in the context of the current shortage of protein sources as animal feed and the nutritional value of BSFL, which has important research significance for sustainability of livestock production.

Keywords: black soldier fly larvae, alternative protein, animal feed, organic waste, circular economy

Eco friendly animal feed resources and nutrition (OP-8)

Moderator : Dr. Roni Ridwan

Ballroom IICC 1

Time	Abs No.	Title	Author
12.30-12.45	OP-8-1	Application of Feed Supplement Nanocalcium-Vitamin D, or Protease Enzymes to Rumen Fermentation Characteristics of Fattening Sheep	M. Slait, D. M. Fassah, and D. A. Astuti
12.45-13.00	OP-8-2	Effect of Locally Formulated Urea Molasses Multi-nutrient Block Supplementation on Growth and Health Performances of Beef Cattle	N. S. A. Hanafi, K. Mat, H. C. Harun, H. A. Hassim, A. F. Mohd Azmi, M. Mahmud, S. M. Al-Amsyar, S. H. Sead, and N. D. Rusli
13.00-13.15	OP-8-3	Agrosilvopastoral Design for Forage Supply Based on Slope Units to Increase Landslide Resilience	Sunardi, H. Purwawangsa, Supriyanto, and N. R. Kumalasari
13.15-13.30	OP-8-4	Estrus Characteristics, Percentage of Gestation, Hematology Profile, and Blood Metabolites in Garut Ewes Fed Ration with Different Protein Levels	J.A. Yusuf, Patmalia, S. Suharti, M. Baihaqi, L. Khotijah
13.30-13.45	OP-8-5	Rumen Fermentability Profiles and Digestibility of Combination of Camellia sinensis, Hibiscus rosa sinensis and Clove oil as Feed Supplement: In vitro Assay	D. S. Wahyuni, H. Herdis, S. Suharti, M. Surachman, S. Akhadiarto, W. A. Darmawan, W. Artati, R. A. Gopar, W. Negara, S. Martono, H.A. Parastiwi, R. D. Purba, P. S. Negoro, H. A. Sukria, A. Jayanegara
13.45-14.00	OP-8-6	Probiotic and Coconut Oil Supplementation for Colic Prevention in Horses	S. N. Indah, A. Mulyana, A. R. Akbar, D. A. Ramadhan, Nahrowi, A. Kurnia, Amrozi, B. J. Widyananta, D. M. Fassah, B. Triadi, S. H.Wijaya, A. Sudarman
14.00-14.15	OP-8-7	Potential Use of Black Soldier Fly Larvae (Hermetia illucens) As an Alternative Protein In Animal Feed	Hassim, H.A

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