

# Organic Waste Bioconversion to Protein and Fat Level of Black Soldier Fly (*Hermetia Illucens*) Larvae

*by* Era Hari Mudji Restijono

---

**Submission date:** 14-Jan-2022 04:09PM (UTC+0700)

**Submission ID:** 1741585298

**File name:** and\_Fat\_Level\_of\_Black\_Soldier\_Fly\_Hermetia\_Illucens\_Larvae.pdf (1,022.66K)

**Word count:** 405

**Character count:** 2928



# BOOK OF ABSTRACT

## **The 3<sup>rd</sup>** **INTERNATIONAL CONFERENCE** **POSTGRADUATE SCHOOL - ICPS 2019**

*“International Conference  
on Sustainable Cities”*

Postgraduate School, Universitas Airlangga,  
Surabaya, July 30<sup>th</sup> 2019

**Presented By:**



**Supported By:**



July 30<sup>th</sup>, 2019, Universitas Airlangga, Surabaya, Indonesia  
The 3<sup>rd</sup> International Conference Postgraduate School (ICPS 2019)

**BOOK OF ABSTRACT**  
**THE 3<sup>rd</sup> INTERNATIONAL CONFERENCE**  
**POSTGRADUATE SCHOOL**

**ICPS 2019**  
*Towards Sustainable Cities*

**Postgraduate School, Universitas Airlangga Campus B**  
**Surabaya, Indonesia**  
**July 30, 2019**

**BOOK OF ABSTRACT**

<b>DISASTER MANAGEMENT .....</b>	<b>3</b>
<b>EDUCATION AND COMMUNITY ENGAGEMENT.....</b>	<b>13</b>
<b>HEALTH AND MEDICINE .....</b>	<b>27</b>
<b>HUMAN MOBILITY AND CULTURE DIVERSITY.....</b>	<b>85</b>
<b>HUMAN RESOURCE DEVELOPMENT .....</b>	<b>96</b>
<b>LAW, POLICE AND FORENSIC .....</b>	<b>149</b>
<b>SOCIAL AND ECONOMIC ISSUES .....</b>	<b>177</b>
<b>THE ROLE OF LAW IN SUPPORTING SUSTAINABLE CITIES .....</b>	<b>264</b>
<b>URBAN ECOSYSTEM, HABITATS AND SUSTAINABILITY .....</b>	<b>274</b>

[ABS-174]  
**ORGANIC WASTE BIOCONVERSION TO PROTEIN AND FAT LEVEL OF BLACK SOLDIER FLY (*Hermetia Illucens*) LARVAE**

*Era hari Mudji (a\*), Heni Aristi (b), Zelvy Aprilia (c)*

- a). S3 Veterinary Science of Faculty of Veterinary Medicine, Universitas Airlangga  
\* era.hari@yahoo.com  
b). Faculty of Veterinary Medicine, Universitas Airlangga  
c). Faculty of Veterinary Medicine, Universitas Wijaya Kusuma Surabaya

**Abstract**

This study aims to determine levels of protein and fat of Black Soldier Fly larvae fed with different organic waste (cabbage, tomatoes, carrots and the mixture of those three). This research is an experimental study that used a completely randomized design (CRD) with four treatments and six replications. Those four treatments were P1 (6 kg of mixture of cabbage, tomatoes and carrots waste), P2 (6 kg of cabbage waste), P3 (6 kg of tomato waste), and P4 (6 kg of carrot waste). This study was conducted for 12 days using 5 DOL larvae. The collected data were analyzed using the one way Analysis of Variance (ANOVA) method. The results show a highly significant difference ( $P < 0.01$ ) among mixed media, cabbage media, tomato media and carrot media in the test of protein levels of Black Soldier Fly (*Hermetia illucens*) larvae with the highest average protein level found in tomato media at 11.4267%, while the fat level test shows no significant difference ( $P > 0.05$ ) among mixed media, cabbage media, tomato media and carrot media with the highest average of fat level found in carrot media at 0.9533%. Black Soldier Fly larvae's nutrition was strongly influenced by the medium of their breeding. Different nutrients would cause different nutrient content in the larvae.

**Keywords:** Black Soldier Fly, Fat Level, Protein Level, Organic Waste

**Topic:** Health and Medicine

# Organic Waste Bioconversion to Protein and Fat Level of Black Soldier Fly (*Hermetia Illucens*) Larvae

## ORIGINALITY REPORT

7%

SIMILARITY INDEX

3%

INTERNET SOURCES

7%

PUBLICATIONS

0%

STUDENT PAPERS

## PRIMARY SOURCES

- 1** Muhammad Al Mujabuddawat, Godlief Arsthen Peseletehaha. "A Latest Discovery of Austronesian Rock Art in the North Peninsula of Buano Island, Maluku", *Kapata Arkeologi*, 2021  
Publication 4%
- 2** [www.ncbi.nlm.nih.gov](http://www.ncbi.nlm.nih.gov)  
Internet Source 3%

Exclude quotes Off

Exclude matches Off

Exclude bibliography Off