

Analysis of Waste Management with Fly Density Level in RT03 RW04, Kartoharjo Village, Nganjuk District, Nganjuk Regency

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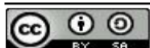
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ABSTRACT

Background Behind : The high density of flies in RT03 RW04, Kartoharjo Village, Nganjuk District, Nganjuk Regency. Based on the initial survey, the results of fly density measurements were 16 flies from five surveyed houses . **Objectives :** This study aims to determine the effect of fly density levels on waste management . **Methods :** The research design in this study is observational Cross-sectional, namely to determine the effect of fly density levels on waste management. Where data concerning independent and dependent variables are collected at once at one time. Determination of Population Number of houses 70. Determination of samples with the formula $n = N / 1 + Ne^2 = 70 / 1 + (70 \times 0.05^2) = 70 / 1 + (70 \times 0.0025) = 70 / 1 + (0.175) = 70 / 1.175 = 59.57$. Then 60 samples were obtained. The instrument used to measure waste management is filling out a questionnaire with observation while to measure fly density using the Fly Grill tool. The sampling technique uses Simple Random Sampling. The data is analyzed in the form of tables and Chi Square tests. **Results :** From this study, namely Good waste management as many as 30 (50%), poor waste management as many as 30 (50%). The density of flies obtained was low as many as 28 (46.67%), Medium as many as 10 (16.67%), High as many as 17 (28.33%), Very High as many as 5 (8.33%). **Conclusion :** Waste management affects the density of flies (significance $0.00 < 0.05$). Furthermore, suggestions related to the results of the study are the environment of RT03 RW04, Kartoharjo Village and the Health Office (Nganjuk Health Center) to plan activities in order to improve waste management so that it can reduce the level of fly density Copyright © 2018 Universitas Ahmad Dahlan .

Keyword : Fly Density, Waste Management



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INTRODUCTION

In Indonesia, vectors and disease-carrying animals have been identified, especially related to tropical diseases, both endemic and potentially epidemic. Given the variety of tropical diseases that are *vector-borne* and *zoonotic*, efforts to control vectors and disease-carrying animals are an integral part of efforts to combat *vector-borne diseases*, including *zoonotic* diseases that have the potential to attack humans. (Regulation of the Minister of Health of the Republic of Indonesia, 2007).

Status of society influenced by a number of factors, wrong the only one is factor environment. Poor environment fulfil condition sanitation can invite various type disease infectious. Effort For prevent And eradicate disease infectious with method increase or repair sanitation environment And has known that Wrong One because distribution disease infectious is through insects (*Arthropoda*). From all type this is the biggest is type insecticide that is fly.

Environmental Health Quality Standards for vectors and disease-carrying animals consist of types, density, and breeding habitats. Types in this case are the names/genus/species of vectors and disease-carrying animals. Fly density in this case is a number that indicates the number of vectors and disease-carrying animals in certain units according to their type, both pre-adult and adult periods. Breeding habitats are places where the pre-adult period of vectors and disease-carrying animals develops. For fly vectors, the standard quality value is <2 to create a healthy environment (Permenkes RI, 2017).

Fly Also is species that play a role in problem health public that is as vector transmission disease digestion. Vector is arthropods that can move or transmit infectious agents from source infection to susceptible hosts (Kusnoputranto, 2000).

Transmission disease happen in a way mechanical, where feathers his body, legs and part another body of fly is place stick it microorganisms disease that originates from garbage, dirt man And animals. When fly the perch to food human, then dirt the will pollute food that will eaten by man so that Finally will arise symptom Sick on man that is Sick on part stomach as well as weak. Infectious diseases by fly between other dysentery, cholera, typhus stomach, diarrhea And other related with condition sanitation poor environment (Depkes, 2001).

Effort For lower population fly is very important, considering the impact that is cause. For That as Wrong One method evaluation Good the bad a location is seen from number density the fly. In determine density flies, measurement to population fly mature appropriate And normal reliable than population measurement of fly larvae.

Fly is species that play a role in problem health public. Threat fly start taken into account especially after the emergence problem garbage which is impact negative from increase resident. Garbage that is not in manage with Good will invite fly For come And contact with human. With pushed by low level knowledge public about hygiene and sanitation, on Finally fly will cause problem health public in a way wide Good from aspect aesthetics until transmission disease.

How to calculate fly density is the number of flies that land within 30 seconds counted at each location at least ten times (10 x 30 seconds) and the five highest calculations are taken as an average (Ministry of Health Regulation, 2017). The classification of fly density is <5 is

not a problem (not high), >5 dense population and requires planning for fly breeding places and if possible control efforts are planned (high) (Ministry of Health of the Republic of Indonesia, 1992).

In the community of RT 03 RW 04 Kelurahan Kartoharjo Subdistrict The Great Regency The Great Not yet someone is researching level density fly , so we interested For stage study about Analysis Management Rubbish with Density Level Fly in RT 03 RW 04 Kelurahan Kartoharjo Subdistrict The Great Regency Nganjuk .

RESEARCH METHODS

Design study on study This is *observational cross sectional*. Population in study This is House in RT03 RW 04 Kelurahan Kartoharjo Subdistrict The Great Regency The Great a total of 70 houses . Data collection using Observation Sheet . Data processed using the SPSS program with test *Chi Square* . Study This aiming For analyze waste management with fly density levels. Data processing using computer includes data entry, editing, coding , and data analysis .RESEARCH RESULT

Fly Density

NO	Fly Density	frequency	Percentage
	Low	28	46.67%
	Currently	10	16.67%
	Tall	17	28.33%
	Very High	5	8.33%
		60	100%

Table 4.1 From the table above, it is known that the low fly density is 28 (46.67 %). The medium fly density is 10 (16.67%). The high fly density is 17 (28.33%). The very high fly density is 5 (8.33%).

Waste management

NO	Waste management	frequency	Percentage
	Good	30	50%
	Not good	30	50%
		60	100%

Table 4.2 From the table above, it is known that good waste management is 30 (50 %).

Poor waste management as much as 30 (50%)

Management Rubbish	Fly Density								TOTAL
	R	%	S	%	T	%	AT	%	
Good	27	90	1	3.33	2	6.67	0	0	30
Not good	2	3.33	8	26.67	15	50	5	16.67	30

Table 4.3 Analysis of Waste Management with Fly Density Level in RT03 RW04, Kartoharjo Village, Nganjuk District, Nganjuk Regency.

From the table above, it is known that waste management is good with a low fly density of 27 (90%), medium fly density of 1 (3.33%). High fly density of 2 (6.67%), low fly density of 2 (3.33%). Waste management is not good with a low fly density of 2 (3.33%),

medium as many as 8 (26.67%), high as many as 15 (50%), very high as many as 5 (16.67%).

From the results of the analysis above, there is an influence of waste management on fly density in RT03 RW04, Kartoharjo Village, Nganjuk District, Nganjuk Regency.

A. Results Test Statistics

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
pengolahan sampah * kepadatan lalat	60	100.0%	0	.0%	60	100.0%

pengolahan sampah * kepadatan lalat Crosstabulation

Count						
		kepadatan lalat				Total
		amat tinggi	tinggi	sedang	rendah	
pengolahan sampah	tidak baik	5	15	8	2	30
	baik	0	2	1	27	30
Total		5	17	9	29	60

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	41.937 ^a	3	.000
Likelihood Ratio	50.028	3	.000
Linear-by-Linear Association	34.362	1	.000
N of Valid Cases	60		

a. 4 cells (50.0%) have expected count less than 5. The minimum expected count is 2.50.

Based on the statistical test, the results of the asymp sig value (2-sided) were obtained, namely 0.00. The value of $0.00 < 0.05$, which means that H_0 is rejected and H_1 is accepted, which means that waste processing has an effect on fly density.

DISCUSSION

Based on the results of the study, the percentage of houses with good waste management and low fly density is greater than houses with poor waste management. Statistically, it is shown that the percentage of 60 houses with good waste management is 30 houses (50%). Including low fly density of 27 (90%), medium fly density of 1 (3.33%), high fly density of 2 (6.67%). Poor waste management of 30 houses (50%) consists of low fly density of 2 (3.33%), medium fly density of 8 (26.67%), high fly density of 15 (50%), very high fly density of 5 (16.67%).

From the description above, it can be seen that good waste management results in a lower fly density than poor waste management.

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CONCLUSION

In this research, several conclusions were obtained, namely, low fly density with a frequency of 46.67%, medium frequency with a frequency of 16.67%, high frequency with a frequency of 28.33%, and very high frequency with a frequency of 8.33%.

Good waste management is 50% and bad 50%. Based on the analysis with the *Chi Square test*, the level of fly density with waste management obtained a significant value of $0.00 < 0.05$ so it is concluded that there is an influence of the level of fly density with waste management.

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