JIKN
Jurnal Inovasi Karya Nyata
Volume 1 Issue 1, 2025 (13-16)
ISSN (online) : 3109-2187
Homepage : https://jurnalunived.com/index.php/JIKN
Doi : 10.70963/jikn.v1i1

Socialization Of Aedes Sp Birds And Anti-Bird Planting Activities In The Working Way Of Sawah Lebar Puskesmas City Of Bengkulu

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Received [22-05-2025] *Revised [14-06-2025]* *Accepted [30-06-2025]*

Abstract. Dengue Hemorrhagic Fever (DHF) cases in Bengkulu Village are highly prevalent. Factors contributing to DHF cases include the proliferation of Aedes aegypti mosquitoes, climate, population density, knowledge of disease prevention methods, and social behavior. The use of chemical mosquito repellents can cause health and environmental problems. Citronella plants (Cymbopogon nardus L.) can be extracted as an environmentally friendly repellent. Therefore, the empowerment to produce repellent from Citronella was targeted to the community to improve health and economic benefits. The scope of empowerment consists of health counseling, cultivation and repellent-producing training, and marketing. The results of this program show an increase in knowledge about dengue fever, treatment, disease prevention, and utilization of citronella. The community can also cultivate citronella plants and make bio larvicide products and mosquito repellent sprays from these plants.

Keywords: *Biolarvacide, Dengue Fever, Mosquito Repellent Spray*

INTRODUCTION

The Bengkulu City Government (Pemkot), Bengkulu Province, recorded that from January to mid-May 2025, 148 people were infected with Dengue Hemorrhagic Fever (DBD). "Based on records until mid-May 2025, the number of suspected DBD cases in Bengkulu City was recorded at 148 people," said Head of the Bengkulu City Health Office (Dinkes) Joni Haryadi Thabrani in Bengkulu, Monday. Of the 148 people infected with DBD, he said, two of them were declared dead. For this reason, the Bengkulu City Health Office conducted an epidemiological investigation into the suspected deaths of the two teenagers. Various factors can cause the increase in DBD cases, including climate conditions that support the breeding of the Aedes aegypti vector mosquito, increasing population density, lack of public knowledge about DBD and disease prevention strategies, and community behavior (Adyatma, Damayanti, & Swastika, 2021). In the rainy season, increased waterlogging creates an environment that supports the development of Aedes aegypti mosquito larvae, thereby increasing the risk of dengue fever transmission. To overcome this, prevention strategies are focused on efforts to eliminate places where Aedes aegypti larvae breed through the 3M plus approach (draining water reservoirs, covering water reservoirs, and burying used goods), as well as involving the community in vector control (Ministry of Health of the Republic of Indonesia, 2021). In addition, prevention efforts are carried out by killing adult mosquitoes using mosquito repellent, policies on the use of mosquito nets or protective clothing that can protect the body from mosquito bites. These steps are important to reduce exposure to vector mosquitoes and minimize the risk of disease transmission (Directorate General of P2P, 2017). The use of mosquito repellents containing hazardous chemicals such as DEET (diethylmetatoluamide) and permethrin can

pollute the environment. If exposed to sensitive skin, these preparations can cause irritation. In fact, if exposed to high doses and absorbed through the skin, it can cause muscle spasms (Aini, Widiastuti, & Nadhifa, 2016). Therefore, innovation is needed in the use of effective medicinal plants as the basic ingredients for natural mosquito repellent drugs, such as citronella (Cymbopogon nardus L.). This alternative is not only environmentally friendly, but also easy to find and can be produced independently in the home environment (Marby, 2019) and (Yanti, Sari, & Triana, 2022). Studies show that citronella stem extract is effective in killing Aedes sp. mosquitoes. Community empowerment efforts in Sawah Lebar Village through the Family Empowerment and Welfare (PKK) organization highlight awareness of the importance of plant diversity as a step towards sustainable agriculture. The development of medicinal plants, such as citronella, as independent mosquito repellent materials in the home environment, not only increases the diversity of agricultural products, but also provides productive activities for housewives as a potential source of additional income for the family. The empowerment and utilization program of anti-mosquito medicinal plants is a strategic step in efforts to improve the community's economy, with anti-mosquito spray and natural larvicide products that have high selling potential. Thus, PKK can play an active role in improving the economic welfare and health of the community in Sawah Lebar Village.

RESEARCH METHODS

The implementation of the Real Work Lecture (KKN) activity was carried out at the UPTD Sawah Lebar Health Center located at Jl.Sepakat, Rt.23 / Rw. 12, Sawah Lebar Baru, Ratu Agung District, Bengkulu City. The activity was attended by the community in the work area of the Sawah Lebar Health Center, Bengkulu City. On June 4, 2025.

Identification of Problems

The implementation of the activity begins with identifying the problem. Using qualitative descriptive methods / data collection by interview, documentation and direct observation.

Needs Analysis

The next stage is to analyze needs. At this stage, you will get what is needed for supporting media that can be used by the community to support their activities and additional needs that need to be provided, externally to facilitate implementation. The community will be able to understand where their needs lie, the importance of education, improving skills.

Implementation

This implementation method is outlined using the concept of strengthening the importance of maintaining health from cigarettes. This activity was carried out by the Faculty of Health Sciences, Midwifery Information System Study Program, where the method used in delivering information was through counseling, discussion and Q&A with the community in the working area of the Sawah Lebar Health Center, Bengkulu City.

Evaluation

During the process and after the activity was carried out, an assessment was carried out to assess its effectiveness in increasing the interest and motivation of the community to always maintain their health and want to stop or limit smoking. In addition, this evaluation activity evaluates the results of the KKN activities and is intended for future improvements. As the organizer of the KKN activities, this is one of the activities that provides good benefits to the community.

RESULTS AND DISCUSSION

Activity Results

The activity was carried out on June 4, 2025, at Jl.Sepakat, Rt.23/Rw. 12, Sawah Lebar Baru, Ratu Agung District, Bengkulu City. The implementation sessions include: prevention of dengue fever mosquitoes using mosquito repellent plants because most people still use chemical mosquito repellent. In general, this activity was carried out well and smoothly. Mosquito repellent plants were distributed to be planted in all the yards of residents' houses that were still empty, and some were planted at home. Planting mosquito repellent plants in addition to repelling mosquitoes can also make the environment green and healthy.

Figure 1 & 2 Provision of mosquito repellent medicinal plants and planting practices in residents' yards

CONCLUSION

Socialization of Aedes sp mosquitoes and planting of anti-mosquito plants (Lavender, Lemongrass) has been carried out in the form of introduction and distribution of plant samples in Rt 23 Sawah Lebar Bengkulu received a positive response from residents. Participants of the activity learned about Aedes sp mosquitoes and learned about the types of anti-mosquito plants. and are enthusiastic about cultivating them. Anti-mosquito plants are also useful as ornamental plants and greening.

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