

Empowerment of Women Farmer Groups on Oyster Mushroom Cultivation in Fatusene Village, North Central Timor Regency

Kamaluddin^{1,a)}, Lukas Pardosi^{2,b)}, Fransiskus Yulius Dhewa Kadju^{3,c)}

¹Biology Education Study Program, Timor University, Kefamenanu, Indonesia

²Biology Study Program, Timor University, Kefamenanu, Indonesia

³Farming Study Program, Timor University, Kefamenanu, Indonesia

^{a)}Corresponding author: kamaluddinbio@gmail.com

^{b)}lukaspardosi51@unimor.ac.id

^{c)}fransiskuskadju@unimor.ac.id

ABSTRACT

Fatusene village is a mountainous area that has potential for oyster mushroom cultivation. the group of women farmers are housewives who have free time apart from weaving and serving their husbands and children. This service activity aims to improve farmers' abilities in transforming agricultural production in the form of oyster mushrooms based on innovative technology, but partner communities do not yet have an understanding of mushroom cultivation literacy, so mentoring and training activities need to be carried out in empowering partner communities to cultivate oyster mushrooms with technological support. innovative. the method used is the counseling and mentoring method. the implementation time is September-November 2023. The output produced is mushroom products, increasing the skills of partners in cultivating oyster mushrooms.

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INTRODUCTION

Based on Republic of Indonesia Law No. 6 of 2014 concerning Villages, empowerment of village communities in efforts to develop independence and welfare of village communities by increasing knowledge, attitudes, skills, behavior and utilizing resources (Pemerintah RI, 2014;Nurgesang & Dzikrullah, 2022).

Oyster mushrooms are mushrooms that can be consumed and cultivated with white fruit bodies. The cultivation of oyster mushrooms is the same as the cultivation of other mushrooms. Where this mushroom requires lignin as a source of nutrition for its growth, the fungus converts carbohydrate macromolecules into simpler sugar molecules with the help of the ligninase enzyme it produces. Lignin is produced from sawdust (Nurcahyani et al., 2022). The oyster mushroom planting medium uses sawdust, bran, rice bran, and active lime as the main ingredients, but other ingredients can be added to make the planting medium. The more the oyster mushroom business develops, the more waste mushroom growing media (baglog) is produced (Mustabi et al., 2016).

Oyster mushroom cultivation has now become a promising form of agriculture. There are several advantages of oyster mushroom cultivation, namely that it does not require a large area of land, does not require fertilizer, the results can be harvested every day, and is adaptive to the environment (Susilo et al., 2017). Oyster mushrooms are also very popular when processed into various types of food. Apart from that, oyster mushrooms can reduce blood cholesterol levels, and body resistance, prevent high blood pressure, increase blood sugar levels, and prevent tumors and cancer (Djajanegara et al., 2007).

Fatusene Village is a village located in East Miomaffo District, North Central Timor Regency, East Nusa Tenggara with an area of around 5.33 km². The population of Fatusene Village is 454 people with the majority of residents working as farmers (93.23%). The characteristics of agricultural land in Fatusene Village are wavy (55%), hilly (30%), and mountainous (15%). Fatusene Village has a tropical climate with 3-4 wet months and 7-8 dry months. Soil pH in Fatusene Village ranges between 4.2-6 (including acid soil). The average rainfall in Fatusene Village is included in the middle category with the average rainfall in the last 5 years being 152.25 mm. Fatusene Village is an area dominated by mountains with a height of 400 MDPL, air temperature of 230C, and humidity of around 80%. The climate of Fatunese Village has the potential for developing horticultural cultivation, supported by the availability of 9 springs and 2 wells. Another potential that can be seen from Fatusene Village is the existence of 17 furniture processing industries that produce residual waste that has not been utilized by the community. The level of community education in Fatusene Village is dominated by people with low education and some children fall into the category of malnutrition or stunting with data collection results of 8 cases.

The partner farming groups are the Cemara Women's Farming Group and the Tnaotit Farming Group. These two farmer groups cultivate types of agricultural commodities with the main production being corn and other horticultural crops such as tomatoes, tobacco, and mustard greens. The Cemara Farmers Group has 25 members and the Tnaotit Farmers Group has 20 members.

This service activity aims to provide knowledge about how to cultivate oyster mushrooms for the Fatusene Village Community. This activity is expected to improve the group's skills in cultivating oyster mushrooms. This activity is a pioneer in oyster mushroom cultivation thereby increasing the income of farmer groups.

METHOD

This service was carried out in Fatusene Village, East Miomaffo district, North Central Timor Regency in September–November 2023. This activity uses extension and practical methods. The Stages of Service are;

1) Preparation, at this stage prepare the tools and materials used in service activities. 2) FGD with Fatusene Village. 3) Pretest, Participants are given an initial test regarding oyster mushroom cultivation before being given counseling and practice. 4) Delivery of material by the resource person. 5) Oyster Mushroom Cultivation Training. 6) Posttest, After delivering the material, continue with a test to increase participants' knowledge about oyster mushroom cultivation. 7) Mentoring.

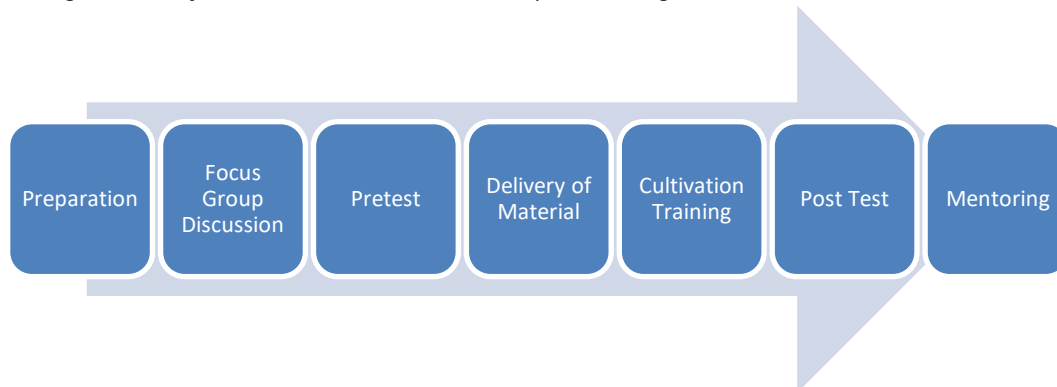


FIGURE 1. Activity Method Flow

RESULTS AND DISCUSSION

The activity began with initial preparations for going to Fatusene Village to discuss the importance of oyster mushroom cultivation to increase farmers' income. The team of Community Service can provide financial and technical support to the community (Widhya et al., 2024). Fatusene Village is located in East Miomaffo District, North Central Timor Regency (Figure 2). The service participants consisted of 2 groups, namely the Cemara Farming Women's Group and Tnaotit. The general stages of activities are as follows:

- Coordination with the Village

This activity was carried out before carrying out counseling and training. The Fatusene Village Government was very enthusiastic in welcoming this activity because this activity could have a positive impact on the community.



FIGURE 2. Coordination of the service team with the Fatusene Village Government

- Extension activities and oyster mushroom cultivation practices

The counseling was carried out at the location of the Cemara and Tnaotit Women's Farmers Group, where there were 25 participants from KWT Cemara and 20 people from the Tnaotit Farmers Group.



(a)



(b)



(c)



(d)



(e)



(f)



(g)



(h)



(i)



(j)



(k)



(l)

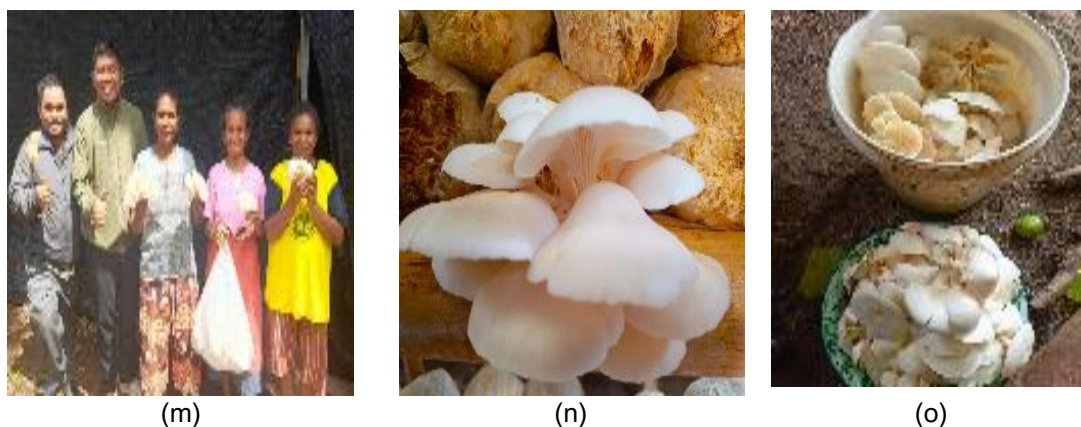


FIGURE 3. Series of Community Service Activities carried out in Fatusene Village (a), (b), (c), (d) Coordination with the Cemara and Tnaotit Women's Farming Group, (e), (f) Installation of Innovation Technology in the Women's Farming Group, (g), (h), (l) ,(j) Making media for growing oyster mushrooms, sterilization, and planting seeds in baglog, (k) Care, (l),(m),(n),(o) Harvesting oyster mushrooms

This activity was carried out from September to November with the stages as shown in Figure 3. The initial activity carried out was collecting the main raw material in the form of sawdust, then carrying out training using the lecture method and continuing with the practice of making media by understanding the composition of the oyster mushroom growing medium. The next activity is filling the media into the oyster mushroom baglog. After all the media has been filled into the baglog, it is then sterilized and the oyster mushroom seeds are planted. The thing that must be paid attention to is to let the baglog cool after sterilization and then plant the mushroom seeds. The baglog that has been planted with oyster mushrooms is then placed on the oyster mushroom rack and cared for until the oyster mushrooms are ready to be harvested.

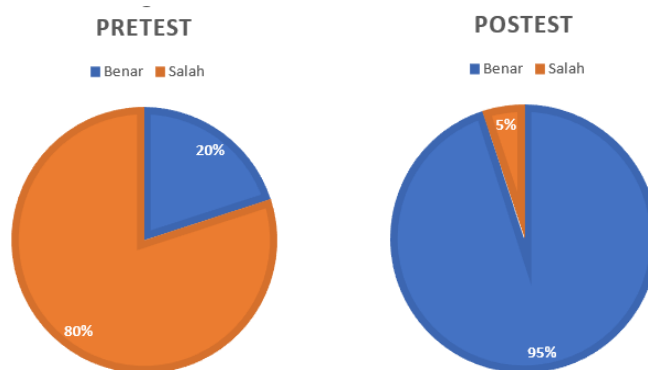


FIGURE 4. Pretest and Posttest Results

From the Pretest and Posttest results, it was found that knowledge about oyster mushroom cultivation increased by 75%. This increase in knowledge is according to Ratnaningtyas, that training is needed to increase the knowledge, abilities, and skills of human resources (Ratnaningtyas et al., 2021). This has been proven to be a competitive advantage for the target audience. In general, participants only know about mushrooms, namely that they grow wild and seasonally. 100% of participants have never cultivated oyster mushrooms, but some have seen the process of cultivating oyster mushrooms.

- Mentoring

Mentoring is carried out as a means of increasing capabilities in production and marketing management. This activity is targeted to be held so that the Women Farmer Group Partners are independent in cultivating and marketing agricultural products.

CONCLUSION

The program that has been implemented has the potential to improve the problems, experienced by the Women Farmers Group partners in developing oyster mushroom cultivation technology which is very suitable to be developed in Fatusene Village because the supporting factors for mushroom growth are very optimal. Participants are very enthusiastic about taking part in the activity because this activity is a pioneer in the cultivation of oyster mushrooms by the Partner Group. To maintain the sustainability of the program, a mentoring process is carried out for the Women Farmers Group.

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