

Empowering Housewives Through Milk Cracker-Making Training

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ABSTRACT

Medowo Village's local potential still needs to be fully utilized despite having abundant resources. It's said that the housewives in Medowo Village, Kandangan District, Kediri Regency, have never made milk crackers before and have no prior expertise with the process. Meanwhile, finding the ingredients needed to make milk crackers is simple and abundant. Products made from cow's milk were previously limited to being sold raw to the Village Unit Cooperative (KUD). Thus, this community service project aims to train the housewives of Medowo Village to become better at producing milk crackers, which could improve the family's financial output. This is in line with the Sustainable Development Goals (SDGs) indicators, which include raising the income of the Medowo Village Community through economic growth (economic development) and industry, innovation, and infrastructure to achieve zero hunger. 29 housewives from Medowo Village participated in this community service project in August 2024. It began with a presentation of information by the community service team, was followed by help practicing making milk crackers, and concluded with reflection and feedback and the distribution of a questionnaire. This community service project aims to help the housewives in Medowo Village become more proficient at producing milk crackers. The questionnaire's results demonstrate that the community service project went successfully and that the participants can comprehend and make milk crackers proficiently. Participants recommended that the following workshop, which focused on marketing milk cracker goods, be continued.

Keywords: milk crackers; Medowo; training; economic growth

INTRODUCTION

The empowerment of rural women, particularly in the economic sector, is a central issue in sustainable development. A concrete effort to achieve this is by developing micro, small, and medium enterprises (MSMEs) based on local resources. Medowo Village, located in the Kandangan Sub-district of Kediri Regency, comprises five hamlets: Sidomulyo, Medowo, Sidorejo, Mulyorejo, and Ringinagung, with a total population of 3,494, the majority of whom are farmers and livestock breeders. Medowo Village holds significant potential, especially due to its abundant dairy resources. Additionally, the strategic geographical location of Medowo Village facilitates market access. However, many livestock breeders still prefer to sell raw milk to the Village Unit Cooperative (KUD) without processing it into other forms.

Although villages often possess rich and abundant resources, many rural communities still need help in sustainable economic management and maximizing the use of local potential. One such potential in Medowo Village is milk production from local farms [1].

Nevertheless, this potential has yet to be fully utilized to increase the community's income. The PKK group in Medowo Village, as a women's empowerment organization, plays a strategic role in mobilizing the community to improve family welfare. However, due to limited knowledge and skills, PKK members often need help developing productive economic enterprises.

Based on this reality, it is necessary to undertake efforts for empowerment through guidance and training so that women in Medowo Village, mainly through the PKK group, can remain active and become a source of additional income for their families.

Training in producing and marketing milk-based crackers is expected to improve the economy and family welfare, thereby supporting the sustainable management of local economic potential. This training can enhance the added value of local milk products by diversifying processed products using fresh cow's milk as the raw material, such as milk crackers. If successful, this processed product is expected to become a distinctive souvenir product of Medowo Village. Milk crackers are one such product that can attract market interest due to their uniqueness and quality, and they can also expand the market reach for products from Medowo Village [2]. This training provides new skills in milk cracker production and aims to inspire the PKK group to take an active role in local economic development. Thus, this training is expected to empower the village community by enhancing skills, creating new business opportunities, and strengthening family economies, which will ultimately support the sustainability and progress of the village [3]. This training program also aligns with the Sustainable Development Goals (SDGs), particularly in increasing food security towards zero hunger and enhancing the income of the Medowo Village community through industry, innovation, infrastructure, and economic growth.

COMMUNITY SERVICE METHODOLOGY

The implementation of the activity began with a survey conducted before the commencement of the program. The location survey was conducted at the PKK Group in Medowo Village, Kandangan Sub-district, Kediri Regency. Based on the survey results, materials and equipment for the outreach and training on milk cracker production were then prepared. Preparation of Materials and Equipment: The materials needed to be prepared included 1 liter of cow's milk, 1 kg of tapioca flour, 100 grams of garlic, 50 grams of scallions, two sachets of flavor enhancer, and one tablespoon of salt. The tools required for making milk crackers included a stove, a medium-sized steamer, a pan, a knife, a basin, a baking tray, a cracker cutter, a spatula, plastic gloves, and a tray. The stages of the milk cracker production training, aimed at equipping the housewives who are members of the PKK in Medowo Village with the necessary skills, were as follows: 1) Presentation of the material on the importance of increasing the added value of milk products through the production of milk-based crackers and promoting sustainable family economic development; 2) A demonstration was then conducted, showing the process of making milk crackers using the prepared ingredients; 3) Independent practice in making milk crackers was carried out by the housewives participating in the training; 4) Reflection or feedback was gathered, including opinions, suggestions, and input from the participants regarding the outcomes of the training; 5) Monitoring and evaluation of the training implementation were conducted, followed by the distribution of questionnaires to assess the participants' responses to the milk cracker production training.

RESULT AND DISCUSSION

Milk Cracker Production Training

Before the commencement of the training, participants were asked to complete a questionnaire/pre-test prepared by the community service team. The questions in the questionnaire/pre-test focused on assessing the knowledge of the housewives regarding the production of milk-based products. The questionnaire results revealed that most housewives had never participated in milk cracker production training, and many needed to gain knowledge about the ingredients and processes involved in making milk crackers (Table 1). Therefore, based on the pre-test results, it can be concluded that the participants, or housewives in Medowo Village, require training on milk cracker production and its marketing to support their family's economic well-being.

TABLE 1: Pre-Test Results of PKK Group of Housewives Participating in The Training.

List of Questions	Yes (%)	No (%)
Have you ever made milk crackers before?	96,55	3,44
Do you have any knowledge about the milk cracker production process before the training?	17,24	82,75
Have you ever attended a cooking class?	17,24	82,75
Do you know the ingredients for making milk crackers?	31,03	68,96

This community service activity was jointly agreed upon and conducted at Lucky Farm, Medowo Village, Kandangan Sub-district, Kediri Regency, East Java, on August 3, 2024, with 29 participants. The average age of the participants was 42 years, with the youngest participant being 18 years old and the oldest 61 years old. Therefore, the training can be considered effective and well-targeted, as the participants are predominantly within the economically productive age range. The characteristics of the training participants are detailed in Table 2.

TABLE 2: Characteristics of PKK Group of Housewives Participating in The Community Service Training on Milk Cracker Production in Medowo Village.

Profile	Frequency (n)	Percentage (%)
Age		
< 30 years old	4	13,79
- 50 years old	19	65,52
>50 years old	6	20,68
Education Level		
Elementary School	8	27,58
Junior High School	12	41,37
Senior High School	5	17,24
Diploma/Bachelor	4	13,79

Profile	Frequency (n)	Percentage (%)
Job		
Housewife	24	82,75
Entrepreneur	2	6,89
Private Sector Employee	1	3,44
Facilitator of the Family Hope Program (PKH)	2	6,89

Source: Primary data 2024

This community service activity commenced with welcoming remarks and a material presentation delivered by Prof. Dr. Widjiati, DVM., M.Si, followed by a demonstration of milk cracker production and a hands-on practice session guided directly by instructors and the community service team. The team comprised several lecturers from the Faculty of Veterinary Medicine, UNAIR, including Dr. Wiwiek Tyasningsih, DVM., M.Kes, Prof. Dr. Epy Muhammad

Luqman, DVM, M.Si, Prof. Mirni Lamid, DVM., M.P, Prof. Dr. Sri Pantja Madyawati, DVM., M.Si, Dr. Eka Pramytha Hestianah, DVM., M.Kes, Yulianna Puspitasari, DVM., M.VSc., Ph.D, Suryo Kuncorojakti, DVM., M.Vet., P.H.D, Dr. Hartanto Mulyo Raharjo, DVM., Msi, Dr. Zulfi Nur Amrina Rosyada, S.Pt, M.Si, and Tantri Dyah Whidi Palupi, DVM., M.Si. Additionally, the team was assisted by one undergraduate student from the Faculty of Veterinary Medicine, two master's students in Reproductive Biology, and one master's student in Veterinary Science from the Faculty of Veterinary Medicine, UNAIR. A total of 29 participants, approximately 83% of whom were housewives and predominantly junior high school graduates, demonstrated enthusiasm and actively participated in the milk cracker-making training [4]. They attentively listened to the material and actively participated in the training process, paying close attention to each stage of the production as demonstrated by the instructor and receiving direct guidance from several lecturers from the Faculty of Veterinary Medicine, UNAIR.



FIGURE 1: Implementation of Community Service: a) Remarks by a representative of the Head of Medowo Village; b) Presentation on improving the family economy through processed milk cracker products.



FIGURE 2: Training Process for Making Milk Crackers in Medowo Village: a) Demonstration of the production process;b) Hands-on practice by representatives of the women participants in the training.



FIGURE 3: Milk Cracker Production Training: Product Branding through Labeling.



FIGURE 4: Participants of the Community Service Training on Milk Cracker Production Conducted by Lecturers, Assisted by Undergraduate and Graduate Students from the Faculty of Veterinary Medicine, UNAIR.

Monitoring and Evaluation Phase of the Community Service

The monitoring and evaluation phase was conducted on implementing the community service program, followed by a question-and-answer session, input/suggestions/comments from participants, and the distribution of questionnaires related to the training process and the milk cracker production assistance provided [5]. This phase aims to assess the extent to which the community service activities were successfully implemented and to evaluate the program's effectiveness in providing participants with an understanding and strengthening their skills in making milk crackers. Based on the post-test questionnaire responses, it was found that participants gained knowledge and understanding of the milk cracker production process and increased their confidence in contributing to their family's economic improvement [6]. The results of the data analysis from the 29 participant responses are presented in Table 3.

TABLE 3: Post-Test Results of the Responses from PKK group of Housewives Participating in the Training.

Aspect	Percentage (%)
The training enhances knowledge of milk cracker production.	100
Understanding the ingredients used to make milk crackers	
a. Complete and Appropriate	89,65
b. Less than five ingredients	10,34
Identifying the steps in milk cracker production	
a. Correct according to the steps	65,51
b. Mentions fewer than four step.	20,68
c. Incorrect/Not provided	13,79
Marketing Plan	
a. Sold to neighbors	24,13
b. Sold at local markets	37,93
c. Sold online	37,93
Increased Confidence in Producing Milk Crackers	82,75

Source: Primary Data 2024.

The housewives participating in this community service program have shown improvement in understanding the need for skills to enhance family economy and well-being, as well as in their milk cracker production skills. This impact will be further enhanced by providing ongoing support related to the marketing of milk crackers to reach a broader market [7].

CONCLUSION

Summary

Overall, the community service program has been successfully implemented to empower housewives in the PKK group of Medowo Village, Kandangan District, Kediri Regency. Participants showed great enthusiasm throughout the training series, which included instruction on improving the family economy by utilizing local resources, specifically the abundant supply of cow's milk—the training covered milk cracker production, packaging, and labeling. According to the questionnaire responses, the training significantly enhanced housewives' understanding, knowledge, and skills in milk cracker production and increased their confidence in producing milk crackers.

Recommendations

Subsequent program phases should follow this community service initiative. The milk cracker products that have been successfully produced need to be marketed to a broader audience. These products are hoped to become a local specialty of Medowo Village, thus transforming milk cracker production into a productive economic activity that improves family welfare. Therefore, the program should be continued with activities such as offline and online marketing training or even training in establishing and managing small and medium-sized enterprises (SMEs) for milk crackers

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