

## **WORKSHOP PRODUCTION OF LIQUID SOAP MADE FROM ARABICA COFFEE AND YOGURT IN CIBIRU, BANDUNG TO DEVELOP HYGIENE LIFESTYLE**

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### **ABSTRACT**

*Few communities in Cibiru have a problem, namely that they have not implement a clean and healthy lifestyle, namely the lack of the habit of washing hands with soap before eating, especially for children, resulting in moderate diarrhea in the community area, as well as a lack of post-harvest diversification of coffee and milk. The solution provided is to educate the community by presentation about the importance of washing hands with soap before eating. This event also holds training in making liquid hand washing soap, so that people are skilled at making the product, and can even sell the product. There are three specific goals and targets to be achieved, namely the community gaining knowledge on how to make hand washing soap, the community get used to a clean and healthy lifestyle and increasing community income by selling the liquid soap. The methods that are used are presentation of material using in focus and Microsoft PPT, training in making hand-washing soap products (hands-on) and monitoring post-training product marketing. The method used to make this hand washing soap is the fermentation method for making yogurt, the maceration method for making Arabica coffee extract. From the results of the questionnaire evaluation, there was an increase in participants' insight after being given the training, namely from an average score of 68 to 90, so there is quantitative data on the results of this training.*

*Keywords: workshop; hand liquid soap; yogurt; arabica coffee*

### **INTRODUCTION**

Few communities in Cibiru have a problem, namely that the community does not implement a clean and healthy lifestyle, namely the lack of the habit of washing hands with soap before eating, especially for children, resulting in moderate levels of diarrhea in the partner area, as well as a lack of post-harvest diversification of coffee and

milk. The solution we want to provide is to educate the public by presenting material on the importance of washing hands with soap before eating, holding training in making liquid hand washing soap, so that people are skilled at making the product, and can even sell the product. There are three specific goals and targets to be achieved, namely the community gaining

knowledge on how to make hand washing soap, the community getting used to a clean and healthy lifestyle (PHBS) and increasing community income.

To treat the skin from the dangers of free radicals, the ability of soap needs to be increased by adding an active compound that has antioxidant activity, including yogurt and Arabica coffee.

Yogurt is the result of milk fermentation with the lactic acid bacteria *Lactobacillus bulgaricus*, *Streptococcus thermophilus*, *Lactobacillus acidophilus* and *Bifidobacterium*. Yogurt contains probiotics. Probiotics are currently defined “as live microorganisms that, when administered in adequate amounts, confer a health benefit on the host” (Savaiano et al, 2021).

Yogurt plays a very good role for the skin because it is a source of calcium, protein and vitamin D. According to researchers (Rum et al, 2021) yogurt contains very strong antioxidants, namely an IC50 value of 15.54. According to researchers (Latief et al, 2022), the Arabica coffee fraction has an IC50 value of 13.13 and is

included in the very strong antioxidant category.

Yogurt is a fermented product that contains various nutrients that are good for health, because they contain vitamins (vitamin B6, vitamin B12, vitamin D and vitamin K), protein, calcium, lactic acid and good bacteria (Rum et al, 2023).

Coffee-enriched yogurt can combine the biological activity of yogurt components with the phenolic compounds of coffee and can be considered a functional food with better health properties (Helal et al., 2022).

#### **IMPLEMENTATION METHOD**

The method used is presentation of material using Infocus and Power Point slides, training (hands-on). The methods used to make hand washing soap are the fermentation method for making yogurt, the maceration method for making Arabica coffee extract. Stages consist of identifying community needs, presenting PHBS material using Infocus and Microsoft PPT, and training in making hand-washing soap products (hands-on).

## RESULT AND DISCUSSION

The implementation stage of the activity is Monday 13 November 2023, presentation of PHBS (Clean and Healthy Lifestyle) material using Infocus and Microsoft PPT & training on making yogurt products, taking place around 9.00-11.00 on Monday 20 November 2023 training on making coffee extraction and training on making liquid Soap. Takes place around 9.00-11.00.



**Figure 1. Training In Yogurt Making.**

The activity went very smoothly, the community was very enthusiastic about listening to the PHBS ppt presentation delivered by Mrs. Dewi Kurnia, also the yogurt making demo presented by Mrs. Ira Adiyati Rum. Making yogurt starts with preparing the raw materials. The cow's milk fermentation process is pasteurized at 80° C for 30 minutes. After pasteurization, the heated milk is allowed to sit until the temperature

drops to 37° C. Then add the bacterial starter, stir until evenly mixed. Pasteurize for 15 hours at 37° C, then store in the refrigerator.

Many questions were asked by the community because there happened to be a cattle farm nearby KWT Kelompok Wanita Tani Indah Lestari, Cibiru Bandung locations and the community has not diversified milk into additional businesses making yogurt. The second day's activities focused on training in making liquid hand washing soap using the yogurt made on the first day and the active ingredient coffee. Each KWT member tried to make liquid soap themselves while listening to a demonstration by Mrs Yanni Dhiani and Mr Dadih Supriadi.



**Figure 2. Liquid Soap Made from Yogurt and Coffee**



**Figure 3. Member Of KWT Kelompok Wanita Tani Indah Lestari and Few Lecturers from Universitas Bhakti Kencana Bandung**

Sodium lauryl sulfate is a on of the ingredients in making liquid soap, type of surfactant that is often used in making soap preparations. Sodium lauryl sulfate has good solubility in water and mixes easily with salt. Sodium lauryl sulfate has advantages in cleaning, chemical stability, and can help reduce surface tension.

DMDM Hydantoin is often used to make cosmetic products such as shampoo, hair conditioner, hair gel, and skin care products. DMDM Hydantoin is an antimicrobial preservative that has high capabilities. DMDM hydantoin is a clear liquid that can dissolve in water. The concentration limit for semi-solid preparations is a maximum of 0.6% and it is hoped that within the specified

time limit no growth of microorganisms will occur.

## CONCLUSION

From the results of the questionnaire evaluation, there was an increase in participants' knowledge after being given the training, namely from an average score of 68 to average score 90, so there is quantitative data on the results of this training. The lecturer team's hope is that after this activity, the community will be skilled at making liquid hand soap using natural ingredients found in their village, which can then become a new business and improve the welfare of the surrounding community.

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