



JPM

Jurnal Pengabdian Mandiri

Volume 2 Issue 2, 2025 (105-108)

ISSN (*online*) : 3089-3070

Homepage : <https://jurnalunived.com/index.php/MANDIRI>

Doi : <https://doi.org/10.70963/mandiri.v2i2>

Socialization of Processing Used Cooking Oil into Aromatherapy Candles: An Effort to Reduce Waste in Betungan Village, RW. 07, RT. 61

Yuti Anita ¹; Nuria Zaidatur Rabiah ²; Wulandari Indah Andi Putri ³; Vineza Elsaifa ⁴; Sinti Revanda ⁵
Herlin ⁶; Yusuf Wahyudi ⁷; Hesti Nur'aini ⁸
^{1,2,3,4,5,6,7,8} Universitas Dehasen Bengkulu
e-mail: ¹ yutibkl2021@gmail.com

Received [24-07-2025]

Revised [22-11-2025]

Accepted [28-11-2025]

Abstract. The “Socialization of Used Cooking Oil Processing into Aromatherapy Candles” activity by KKN-T students of Dehasen University Bengkulu was held at RT. 61, RW 07, Betungan Village, Bengkulu City, Bengkulu Province on Monday, June 30, 2025. This socialization activity aims to reduce environmental pollution and prevent diseases caused by repeated use of used cooking oil. This activity was carried out with a direct practice method with residents of RT. 61, starting with the preparation of materials, making aromatherapy candles and opening a question and answer session for participants. After conducting this socialization, it is hoped that used cooking oil waste can reduce household waste and environmental pollution around residents.

Keywords: *Waste, Used Cooking Oil, Aromatherapy Candle.*

INTRODUCTION

Oil that has been fried more than three times is called used cooking oil. This waste can damage the environment and cause disease. It can be concluded that people who cook and consume food fried with used cooking oil are at a higher risk of developing high blood pressure and cancer compared to those who frequently change their cooking oil (Alamsyah et al., 2017). Dense populations and an increasing population annually lead to an increasing demand for oil. This increased demand for oil leads to an increase in used cooking oil waste, which can result in increased potential environmental pollution, which can have negative effects on the health and ecosystem of living things (Kusnadi, 2018).

Some health problems resulting from the dangers of repeated cooking oil use include thickening of the arteries caused by the accumulation of fat, cholesterol, or other substances on the artery walls (Wahyuni & Rojudin, 2021). Environmental issues that need to be addressed include the disposal of used cooking oil liquid waste in waterways. Used cooking oil causes accumulation because it doesn't mix with water, causing the water to be covered by a layer of oil (Aini et al., 2020).

The oil-covered water surface blocks sunlight from entering, leading to increased Chemical Oxygen Demand (COD) and Biological Oxygen Demand (BOD) levels. This leads to the death of biota and disrupts the balance of the ecosystem (Aisyah et al., 2020). Water and soil pollution caused by used cooking oil waste is a serious concern. Making aromatherapy candles from used cooking oil waste is a way to reduce oil waste and create beneficial products. Aromatherapy candles are modified candles that utilize aromatherapy oils to provide a relaxing or calming aroma (Wardani et al., 2021).

RESEARCH METHODS

This community service program was held in a sub-district where students from the Agricultural Technology and Agribusiness Study Program, Faculty of Agriculture, Dehasen University, Bengkulu, were conducting their Community Service Program (KKN). The target group was the community of RT 61, RW 07, Betungan Village, Selebar District, Bengkulu City, Bengkulu Province. The community service program began with a request for permission from the RT head and preparation of materials. Socialization was conducted using direct communication techniques with the community.

- a. Preparing the materials and tools to be used.
- b. Making aromatherapy candles from used cooking oil.
- c. Opening a question and answer session.

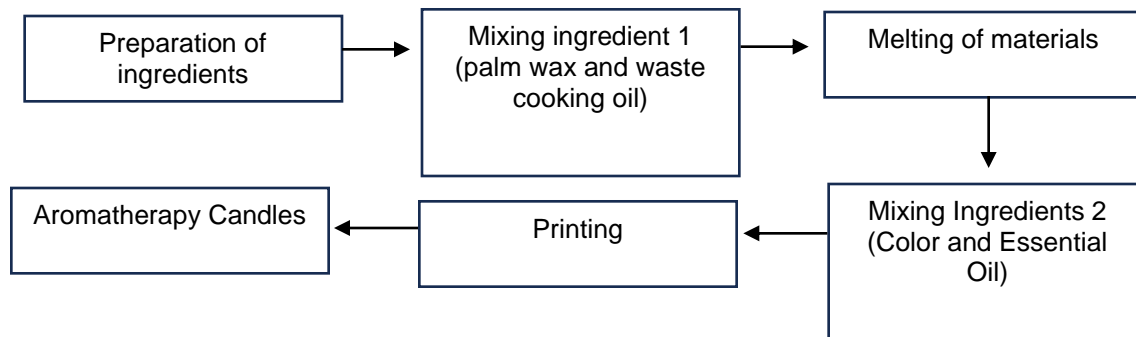


Figure 1. Flow diagram for making aromatherapy candles

RESULTS AND DISCUSSION

The field conditions found that are the main topic in managing used cooking oil are the high volume of waste, there has been no effort to utilize used cooking oil waste, waste is usually disposed of carelessly which causes environmental pollution. In addition, the lack of public awareness that still uses cooking oil repeatedly is still a major problem because it can result in long-term health conditions. Based on this, KKN – T University of Dehasen Bengkulu students helped the community to be able to utilize used cooking oil waste in reprocessing it into useful products, namely aromatherapy candles. Used cooking oil is the main raw material for making aromatherapy candles, so we collaborated with residents to collect used cooking oil waste from residents' homes.



Figure 2. Socialization Activities for Making Aromatherapy Candles

Table 1. Driving Factors and Inhibiting Factors Activity

Driving Factors	Inhibiting Factors
Knowledge new about product made from standard main oil used cooking oil become candle aromatherapy , making height enthusiastic participant to the material provided	Implementation done with little time so that preparation materials needed only Can collected in amount small
Participant is mothers and fathers who are ready petrified in preparation socialization	

Table 2. Success Criteria and Parameters Activity Community service

Criteria	Parameter
Community Participation	Participants consisting of mothers and fathers residents of RT 61, RW 07, Kelurahan Betungan
Understanding the Material	Understanding very good material , looks from session discussion and questions running answer Good .
Impact Activity	Participant capable reduce waste House ladder oil used cooking oil become candle aromatherapy . Activities This can reduce waste oil used cooking oil

Source : Processed primary data , 2025

CONCLUSION

Based on the results of the Community Service Program (KKN-T) conducted by Dehasen University, Bengkulu, which focused on the processing of used cooking oil waste into aromatherapy candles, the findings of the Waste Cooking Oil (WCO) in the Making of Aromatherapy Candles in RT. 61, RW. 07, Betungan Village, Selebar District, Bengkulu City, Bengkulu Province, concluded:

1. Waste cooking oil can be used to produce aromatherapy candles using locally available equipment and raw materials.

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