

**UTILIZATION OF USED COOKING OIL INTO AROMATHERAPY
CANDLES AND LIQUID SOAP IN THE PRINGSURAT HAMLET COMMUNITY,
GUNUNGKIDUL**

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Abstract - *Used cooking oil is one of the waste raw materials that is growing rapidly in the household environment and has a negative impact on body health and the environment. Therefore, efforts need to be made to utilize used cooking oil waste into something useful in order to minimize used cooking oil waste and reduce environmental pollution. The aim of this service activity is to increase public knowledge about products produced from cooking used oil, namely aromatherapy candles and liquid soap, as well as providing education regarding the manufacture of aromatherapy candles and liquid soap using used cooking oil as the basic ingredient. The type of method used is by providing counseling in the form of socialization and elaboration of information regarding cooking used oil, with three stages of activity implementation, namely social reflection, participant planning, and program implementation. Based on the results of the outreach, there was an increase in the knowledge of the Padukuhan Pringsurat community regarding the impacts of using and disposing of used cooking oil as well as increasing skills in using used cooking oil into products such as aromatherapy candles and liquid soap.*

Keywords: Used Cooking Oil, Candles, Aromatherapy, Socialization, Utilization.

1. INTRODUCTION

Used cooking oil is oil produced from leftover frying oil that has been used for cooking more than twice. Waste used cooking oil can be produced from corn oil, ghee, coconut oil, vegetable oil, and others. During frying, three degradation reactions occur, such as hydrolysis which will produce free fatty acids, polymerization, and oxidation. (Sanli et al., 2011). Used cooking oil is said to be used cooking oil because it has been used repeatedly up to 4 times so that the quality and content in the oil have decreased. Waste cooking oil has a bad effect on humans if used repeatedly.

Along with the increasing population density every year, it causes an increase in household needs, one of which is the need for food such as cooking oil. This results in an increase in used cooking oil waste which can result in increased environmental pollution, this can have a bad effect on the environment, this can have a negative effect on the health and ecosystem of living things. (Kusnadi, 2018). Health problems that will arise if you consume used cooking oil continuously include the formation of thickening of the arteries caused by the accumulation of fat, cholesterol and other substances on the walls of the arteries. (Wahyuni & Rojudin, 2021).

Fats that do not mix with water have properties that can cause build-up in water channels and can also result in damage to the ecosystem in the environment affected by the disposal of used cooking oil. (Aini et al., 2020). Used cooking oil is still used repeatedly by the people of Padukuhan Pringsurat, this is not good for the body. Not many people in Padukuhan Pringsurat immediately throw away used cooking oil. This situation is very worrying, because the waste oil will cause environmental pollution such as pollution of water channels and pollution of the soil.

Used cooking oil has not been widely utilized by the community in Pringsurat Hamlet. To minimize environmental pollution caused by used cooking oil, the KKN 157 group held a Socialization program for the Utilization of Used Cooking Oil into Aromatherapy Candles and Liquid Soap. This is one of the easy steps to take and also has economic value so that it has the potential to be developed into a source of income for the community in Pringsurat Hamlet.

Aromatherapy candles are candles that are modified from candle-making materials by utilizing materials that are readily available and easy to obtain, such as using used cooking oil as the main ingredient and adding aromatherapy which aims to provide a relaxing or calming aroma. (Wardani et al., 2021).

Soap is a mixture of potassium or sodium with fatty acids derived from plant or animal oils, in solid, soft, or liquid form, and produces foam, used as a cleaner with additional ingredients such as fragrances, dyes, and other ingredients that are safe for health (Chetta Aradhita Sufi et al., 2023).

The purpose of this community empowerment activity is to increase public knowledge about the impact of repeated use of used cooking oil on body health and the environment, increase public knowledge about products made from used cooking oil, namely aromatherapy candles and liquid soap, and provide counseling on making aromatherapy candles and liquid soap using used cooking oil as the basic ingredient.

2. METHOD

The community service method used is socialization and training based on several stages of community service. The first stage that the researcher carried out was field observation and survey, which was located in Pringsurat Hamlet, Ngloro Village, Saptosari Sub-district, Gunungkidul Regency. Observation and survey were conducted to find out how the people of Pringsurat Hamlet dispose of used cooking oil. The second stage, namely, the KKN 157 group carried out community service by coordinating with the village and asking for permission to carry out the activity. The third stage is the preparation stage, at this stage it was carried out by distributing invitations addressed to all PKK mothers with details of the socialization participants consisting of all PKK mothers of Pringsurat Hamlet consisting of RT 24, RT 25, RT 26, and RT 27. The selection of mothers as participants was because mothers were more involved in cooking activities. The final stage was the trial stage which was carried out at the Pringsurat Hamlet hall. The material presented through presentations and practices of making aromatherapy candles and liquid soap with the main ingredient being used cooking oil.

In this activity, the survey stage was conducted using an unstructured interview type. This interview was conducted in general but in-depth enough to seek information. The purpose of the interview was to exchange opinions and explore data on the use of cooking oil with the potential to produce used cooking oil waste.

3. RESULTS AND DISCUSSION

Socialization of the use of used cooking oil into aromatherapy candles and liquid soap as a form of community service with the main objective of increasing knowledge and providing new skills regarding the use of used cooking oil into products in the form of aromatherapy candles and liquid soap. The socialization approach was carried out by conducting direct practical tests. This activity was carried out with 25 participants from the PKK mothers of Pringsurat Hamlet. The selection of participants specifically for mothers is none other than because mothers have an important role in household activities.

In the initial stage of socialization, it began by providing information and knowledge about the impacts of the use and disposal of used cooking oil. Participants who attended this activity were very enthusiastic in participating in the socialization of the use of used cooking oil. This can be seen from how participants listened and paid attention to the explanation given by the speaker. The presentation activities are seen in the following activities:



Figure 1. Information Presentation Regarding Used Cooking Oil

The next stage is to introduce new knowledge that is a leading program of community empowerment regarding the use of used cooking oil in making aromatherapy candles and liquid soap from used cooking oil. Representatives of participants carried out the steps taught enthusiastically. The ingredients needed in making aromatherapy candles include: used cooking oil, paraffin, crayon dye, and fragrance (essense).

The steps in making aromatherapy candles for the people of Padukuhan Pringsurat are: (1) preparing the tools and materials to be used such as; wicks, shot glasses, heaters, paraffin, aromatherapy oil, and dyes. (2) heating 300 ml of purified used cooking oil using a low flame on the heater. (3) adding 300 grams of paraffin to the used cooking oil slowly until homogeneous. (4) adding 5-7 drops of aromatherapy oil and crayon dye to the mixture of oil and paraffin. (5) putting the mixture of used cooking oil and paraffin into the shot glass that already contains the candle wick. (6) leaving the aromatherapy candles for 1-2 hours until solid. The process and results of utilizing used cooking oil made in this activity are shown in the following image:



Figure 2. Practice of Utilizing Used Cooking Oil to Make Aromatherapy Candles

The next stage is making Liquid Soap with used cooking oil as the base material. The ingredients used in making this liquid soap are 150 ml of used cooking oil, KoH, Clean water, Norit or Charcoal, Ester or perfume base, dye or crayon.

The stages of making liquid soap begin with preparing the tools and materials to be used, then collecting all the used cooking oil waste into one place, then mixing it with activated charcoal for approximately 24 hours to clarify and reduce the odor of the used cooking oil waste. After that, this activated charcoal is separated from the used cooking oil by a filtering process. After obtaining used cooking oil that has undergone a clarification process, the used cooking oil waste is made into liquid soap with the following steps: (1) prepare 7.5 grams of KOH into 50 ml of water, then dissolve it (2) heat the cooking oil at medium temperature (3) add the KOH solution to the used cooking oil (4) stir the mixture for approximately 10 minutes or until thick (5) add coloring (6) add perfume base (7) then stir again until evenly mixed. The making of this liquid soap can be seen in the following picture:



Figure 3. Liquid Soap Making Practice

The results of the socialization activities can be observed directly after the activities are carried out. Participants in the activities looked enthusiastic and responded actively and positively in participating in the socialization activities. Daily waste that is always produced by household activities becomes a very innovative product when the waste can be turned into a product that can be used for daily activities and even become a potential additional income for the people of Padukuhan Pringsurat. The products resulting from the utilization of used cooking oil made in this activity were taken home as souvenirs and can be practiced again using materials available in each home.

4. CONCLUSION

Increasing the knowledge of the Pringsurat Hamlet community regarding the impact of the use and disposal of used cooking oil on body health and the environment, as well as providing knowledge about products that can be produced from the use of used cooking oil, namely aromatherapy candles and liquid soap, also adding skills regarding the manufacture of aromatherapy candles and liquid soap by utilizing used cooking oil as the basic ingredient. The Pringsurat Hamlet community felt enthusiastic and responded positively during the socialization activities. Daily waste that will continue to be produced by household activities becomes a very innovative product when the waste can be converted into products that can be used for daily activities and can even be a potential to increase income for the Pringsurat Hamlet community.

REFERENCE

- Aini, Desti, N., Arisanti, DW, Fitri, HM, & Safitri, LR (2020). Utilization of Used Cooking Oil as Raw Material for Environmentally Friendly Candle Products and Increasing Household Income in Batu City. *Warta Pengabdian*, 14(4), 253.
- Kusnadi, E. (2018). Study of Potential Environmental Pollution Due to Used Cooking Oil Waste in Banda Aceh City. Environmental Engineering Study Program, Faculty of Science and Technology, Ar-Raniry State Islamic University.
- Mokodongan, RS, Fauziah, SN, & Sari, GP (2023). Utilization of Used Cooking Oil as Laundry Soap in the Kranggan Permai Community, Jatisampurna Village, Bekasi. *SELAPARANG: Journal of Progressive Community Service*, 7(2), 801-805.
- Sanli, H., Canakci, M., & Alptekin, E. (2011). Characterization of Waste Frying Oils Obtained from Different Facilities. *Proceedings of the World Renewable Energy Congress*, 57, 479- 485.
- Wahyuni, S., & Rojudin, R. (2021). Utilization of Used Cooking Oil in Making Aromatherapy Candles. *Proceedings of UIN Sunan Gunung Djati Bandung*, 1(54), 1-7.
- Wardani, Kusuma, DT, Saptutyningsih, E., & Fitri, SA (2021). Creative Economy: Utilization of Used Cooking Oil Waste for Making Aromatherapy Candles. *Proceedings of the National Seminar on Community Service Programs*, 17, 246.