



Increasing Community Awareness of Virgin Coconut Oil (VCO) Production through Coconut Value Addition Training

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History Article	Abstract
Received: 11 September 2026 Revised: 21 September 2026 Accepted: 30 September 2026	This community service program aims to increase community awareness and skills in utilizing local coconut resources through Virgin Coconut Oil (VCO) production training in Rumbai Jaya Village, Kempas District, Indragiri Hilir Regency, Riau Province. The program was conducted as part of the Student Community Service Program (KKN) of UIN Sultan Syarif Kasim Riau, involving community members as participants in a local resource empowerment activity. A participatory and practical approach was applied through several stages, including observation, local potential mapping, discussion, educational sessions, demonstrations, and hands-on practice of VCO production. Evaluation was conducted through direct observation of participant involvement, interaction during discussions, responses to the training activities, and participation in the production process. The results showed that the program increased community understanding of coconut utilization and provided practical experience in processing coconuts into VCO as a value-added product. Participants were actively involved in the production process and successfully produced VCO from locally available coconut resources. However, the program was limited by the absence of quantitative assessments such as pre-test and post-test measurements, as well as the lack of evaluation regarding product sales, income changes, and long-term economic impacts. In conclusion, the VCO production program served as an initial step in empowering the community to utilize local coconut potential more productively. Further assistance is needed to support product quality improvement, packaging, marketing, and sustainable development of coconut-based community enterprises.
Keyword <i>The Student Community Service Program (KKN), Community Empowerment, Coconut, Virgin Coconut Oil (VCO), Local Potential</i>	

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INTRODUCTION

The Student Community Service Program (KKN) is a form of student service to the community that implements the Tri Dharma Perguruan Tinggi (Three Pillars of Higher Education). Through KKN activities, students not only apply the knowledge and skills acquired during their academic studies but also gain firsthand insight into the community's social, economic, cultural, and environmental conditions, as well as its inherent potential. The KKN program in Rumbai Jaya Village, Kempas District, Indragiri Hilir Regency, focuses on developing local potential and empowering the community through various initiatives tailored to local needs. The approach adopted for this program prioritizes leveraging local potential and wisdom as the foundation for designing activities intended to deliver tangible and sustainable benefits to the community.

Rumbai Jaya Village is located in Kempas District, Indragiri Hilir Regency, Riau Province. Covering an area of approximately 50 km² (or ±5,000 hectares), the village consists predominantly of lowlands utilized for agriculture, plantations, and fisheries. These geographical conditions offer significant natural resource potential for the local community. According to the village profile included in the KKN (Student Community Service) report, the village has a population of approximately 3,792 people distributed across several hamlets. Most residents earn their livelihoods in agriculture, plantations, fisheries, and trade, as well as through micro, small, and medium enterprises (MSMEs). Coconut is a key developing commodity in the area, alongside oil palm and copra. This situation indicates that the plantation sector—specifically coconut

cultivation and utilization—holds promise for development as a source of productive economic activity for the community.

Coconuts can be utilized not only for direct consumption but also processed into various value-added products. One such product is Virgin Coconut Oil (VCO). VCO is an oil extracted from fresh coconut meat using mechanical or natural methods, without undergoing chemical refining. Processing coconuts into VCO allows locally available raw materials to be transformed into products with both utility and economic value. Scientific studies indicate that the "wet process" using fresh coconut is a common method for producing VCO, and the characteristics of the resulting product are influenced by the processing method, the quality of the raw material, and the storage and packaging processes (Prasanna et al. 2024).

The development of coconut-based processed products is also relevant to community empowerment efforts. Empowerment is understood not merely as the provision of aid, but as a process of enhancing the community's capacity to identify and utilize local resources more productively. Developing the coconut value chain requires community involvement at various stages, ranging from production and processing to marketing. Studies on the coconut supply chain in Riau Province also highlight the importance of strengthening institutional capacity and fostering collective action to enhance the sustainability of the supply chain. Therefore, the introduction of Virgin Coconut Oil (VCO) processing within the Student Community Service (KKN) program aims not only to introduce a product but also to improve the community's knowledge and skills in leveraging available local potential.

Based on observations and mapping conducted by Community Service Program (KKN) students in Rumbai Jaya Village, coconuts were identified as a local resource with the potential to be developed into value-added processed products. Preliminary observations indicated that while the community already utilized coconuts for household needs and as raw material, there was limited processing into value-added products such as Virgin Coconut Oil (VCO). Discussions with the community further revealed that knowledge and practical skills regarding VCO production remained limited. This situation aligns with findings from other community service initiatives, which show that limited coconut utilization and processing—along with a lack of community knowledge regarding VCO production—remain key issues in coconut-producing regions (Widiati et al., 2025).

Subsequent steps involved assessing the availability of coconut raw materials, selecting a location for the activities, and identifying stakeholders capable of supporting the program's implementation. Observations and discussions with the community and relevant parties highlighted a need for simple processing activities that could be carried out using materials and equipment already available within the local community. Based on these findings, VCO production was selected as the intervention method because it aligns with the available coconut resources and the community's need to enhance their knowledge and skills in coconut processing. The choice of VCO production is also supported by previous community service activities, which demonstrated that VCO training serves as an effective way to utilize coconut resources while simultaneously improving community skills in transforming coconuts into value-added products (Delviana Marbun et al., 2026a).

The coconut potential in Rumbai Jaya Village represents a local resource well-suited for development through community empowerment initiatives. The abundant availability of coconuts in the village offers an opportunity to create processed products that provide broader benefits and added value. Through a Student Community Service (KKN) program, students collaborated with the community to identify this potential and develop it by processing coconuts into Virgin Coconut Oil (VCO). Activity planning took into account raw material availability, community conditions, and potential product applications. Subsequently, the students prepared the necessary resources—ranging from ingredients and equipment to the specific VCO processing steps to be introduced to the community. This initiative focused not only on the VCO production process itself but also served to introduce alternative uses for coconuts, transforming them into higher-value products. By leveraging existing local resources, the program aims to encourage the community to view local produce as an opportunity that can be developed independently and sustainably.

One of the key areas of focus for the community service initiative in Rumbai Jaya Village is the utilization of coconuts a local resource which holds significant potential for development into products offering greater utility and economic value. Despite the abundant supply of coconuts, the community lacks sufficient knowledge regarding alternative processing methods, such as the production of Virgin Coconut Oil (VCO). Consequently, there is a need for activities that provide the community with both an understanding of and practical experience in transforming coconuts into higher-value products. (Eduardo

Simarmata et al. 2025). This community service activity focuses on introducing the potential of coconuts and imparting the knowledge and basic skills required for Virgin Coconut Oil (VCO) production. The material covered ranges from an introduction to the necessary ingredients and equipment and the processing stages to the utilization of the final product. The activity is not intended to achieve industrial-scale production; rather, it serves as an initial step to introduce simple processing techniques that the community can implement using resources available in Rumbai Jaya Village. Consequently, this initiative aims to enhance the utilization of local potential while broadening the community's understanding of opportunities for developing coconut-based products.

The specific objectives of this community service activity are to enhance the knowledge of the Rumbai Jaya village community regarding the potential of coconuts as a raw material for processed products; to improve community skills in understanding and executing the basic process of Virgin Coconut Oil (VCO) production; and to encourage the community to utilize local resources to create products with both utility and economic value. Success is expected to be demonstrated by the community's ability to grasp the fundamental stages of processing coconuts into VCO and by an increased awareness of opportunities to utilize coconut resources more productively. These objectives align with the specific goals of the Student Community Service (KKN) program, which emphasize the innovative application of science and technology, participatory community empowerment, and the utilization of available resources to enable the community to develop programs independently and sustainably.

This activity is expected to benefit the community by enhancing their knowledge and skills in coconut processing, raising awareness of local resource potential, and broadening their understanding of value-added product development. In the long term, this knowledge and these skills can serve as a foundation for the community to further develop their coconut processing activities. This aligns with the objectives of the Community Service Program (KKN), which positions coconut utilization as a means to develop community potential and skills for creating products with both practical utility and economic value (Sulistiyowati et al, 2024). The KKN report also recommends follow-up training, mentoring, and the development of community business groups focused on coconut processing—specifically Virgin Coconut Oil (VCO)—to ensure that the coconut potential in Rumbai Jaya Village continues to be developed and generates added value for the community.

Thus, the activity titled "Adding Value to Coconuts: Raising Awareness on Virgin Coconut Oil (VCO) Production as a Means of Community Empowerment" represents a form of community service that links local resource potential with the enhancement of community capacity. The framework of this activity is built upon the interconnection of identifying coconut potential, increasing knowledge, imparting processing skills, fostering community engagement, and developing opportunities to utilize local products. Through this approach, the initiative is expected not only to impart knowledge during the Student Community Service (KKN) program but also to serve as a starting point for the residents of Rumbai Jaya Village to develop their coconut resources in a more productive and sustainable manner.

METHOD

This community service activity was conducted in Rumbai Jaya Village, Kempas District, Indragiri Hilir Regency, Riau Province, as part of the (KKN) or Student Community Service program of UIN Sultan Syarif Kasim Riau. The activity targeted the residents of Rumbai Jaya Village through an empowerment program focused on utilizing the village's coconut potential as a local resource. Based on the KKN final report, a program for producing coconut oil specifically Virgin Coconut Oil (VCO) was designated as a primary initiative following observations and an assessment of the community's conditions, potential, needs, and challenges. Observations involved examining the village environment and interacting with residents, village officials, community leaders, and relevant stakeholders. These observations revealed the community's coconut resources and their existing uses in daily life, while the assessment helped determine the availability of raw coconuts, suitable locations for the activity, and potential stakeholders to involve.

The VCO production program was aimed at the entire community of Rumbai Jaya Village, with the goal of imparting knowledge and skills regarding alternative ways to process coconuts into products with both utility and economic value. During implementation, KKN students engaged with the community to share information on coconut utilization and the processing methods for producing coconut oil or VCO. Although the KKN final report identifies the entire Rumbai Jaya community as the target audience, the available report does not specify the exact number of attendees, participant demographics (such as age or gender), the specific community groups involved, or an attendance summary. Consequently, such details

should only be included if they are available in the attendance logs or activity documentation. The activity focused on equipping the community with basic knowledge and skills to utilize locally available coconuts, rather than on industrial-scale VCO production.

The community service activity employed a participatory and practical approach, involving the community from the initial stage of identifying potential resources through to the actual processing of coconuts into Virgin Coconut Oil (VCO). Community participation was facilitated through observation and interaction with residents, village officials, and community leaders to assess coconut potential, local needs, and available resources in Rumbai Jaya Village. The findings from this assessment served as the basis for selecting VCO production as the method of coconut utilization and for choosing a processing technique that was simple, easy to understand, and feasible using locally available resources. Furthermore, the community was involved in discussions regarding coconut utilization and hands-on practice for each stage of VCO production, ensuring that local input and conditions were taken into account during implementation. Thus, the participatory approach went beyond mere community attendance; it was realized through active involvement in identifying potential, determining the nature of the activities, and carrying out the VCO processing itself (Rachmawaty et al. 2022).

The community service activity was carried out through interconnected stages observation, mapping, discussion, implementation, and communication during the Student Community Service (KKN) program in Rumbai Jaya Village, Kempas District, Indragiri Hilir Regency. The observation stage involved direct assessment of environmental conditions and interactions with community members, village officials, and local leaders to identify potential, needs, and current coconut usage in daily life. According to the KKN final report, coconuts are a significant resource utilized by the community; however, quantitative data regarding the number of coconut farmers, plantation area, and production volume or availability were not included. Consequently, the mapping stage focused on identifying the availability of coconut raw materials, suitable locations, available resources, and potential stakeholders for the activity. The findings from observation and mapping were then discussed with village officials and the community to determine the necessary materials, equipment, processing methods, and activity formats that were simple and easily implementable using local resources. Subsequently, the implementation stage involved information dissemination and hands-on practice in Virgin Coconut Oil (VCO) production by KKN students alongside the community, while ongoing communication served to share information, gather feedback, resolve obstacles, and adjust activities to suit community conditions. The decision to process coconuts into VCO was based on the local availability of coconuts and the relevance of this approach to utilizing local resources by creating products with both utility and economic value a strategy demonstrated in the VCO-based community empowerment activity in Lasori Village(Sunyanti et al., 2025). Thus, this activity aimed to enhance community knowledge and skills regarding coconut utilization through VCO processing, even though the final report lacked quantitative data on production volumes or existing coconut processing and sales practices within the community.

The implementation phase was carried out through outreach activities and practical demonstrations of VCO production. During this stage, the community was briefed on the use of coconuts as the raw material for VCO, the necessary ingredients and equipment, and the basic steps of the processing method (Chaidir et al. 2023). Following the presentation, the activity proceeded with a practical session, allowing the community to observe and understand the VCO production process firsthand. This practical component was crucial, as it provided community members with the opportunity to acquire skills through direct, hands-on experience with the processing method. The implementation of this VCO program was a core initiative of the Community Service Program (KKN) aimed at the residents of Rumbai Jaya Village.

The final stage involved communication throughout the activity to facilitate information exchange, interaction, and feedback between the students and the community. Communication was conducted directly through discussions and information sharing on the processing and utilization of VCO products. During these interactions, community members were given opportunities to ask questions, provide responses, and give feedback on the activities. This stage also aimed to support the continued application of the knowledge and skills acquired by the community after the Community Service Program (KKN) concluded (Kurniati et al. 2023).

RESULT AND DISCUSSION

The implementation of the VCO production activity resulted in increased community understanding and practical skills in utilizing coconuts as a value-added product. Community members participated directly

in the VCO production process, from preparing the coconut raw material to processing it into VCO. The hands-on practice provided participants with direct experience in applying the processing techniques introduced during the activity. The activity also produced VCO as a practical output, demonstrating the potential of locally available coconuts to be developed into economically valuable products.

The activity was conducted using a participatory and practical approach, involving the community in information delivery, discussion, demonstration, and hands-on practice of Virgin Coconut Oil (VCO) production. Participants were first introduced to the potential of coconuts and their utilization as a raw material for VCO. The students then demonstrated the production process, after which community members were given the opportunity to participate directly in the practical stages, including the preparation of coconut milk and the subsequent separation process. The practical component was intended to provide participants with direct experience rather than relying solely on observation. However, the final KKN report does not record the exact number of participants who performed each practical stage or provide a specific competency score or assessment instrument; therefore, the level of individual practical competency cannot be quantitatively reported. This limitation is acknowledged because the present activity was designed primarily to introduce knowledge and basic skills in processing coconut into VCO rather than to measure individual competency outcomes.

The findings of the present activity can be compared with previous community-service programs that used similar practical approaches (Sunyanti et al., 2025), for example, conducted VCO socialization and training in Parit Banjar Village through the delivery of information and direct practice, with participants learning the stages of VCO production using locally available coconut resources. Similarly, the present program combined information delivery, discussion, demonstration, and direct practice; however, unlike studies that included quantitative evaluation of participant knowledge or skills, the KKN report for Rumbai Jaya does not provide pre-test/post-test scores or a practical competency assessment. Therefore, the evidence from the present program is limited to documented community involvement in the learning and practical process, rather than a measured increase in knowledge or competency. This distinction indicates that the activity provided participants with direct practical experience in VCO processing, while the effectiveness of the training in improving individual competency would require further evaluation using measurable assessment instruments. (Chaidir et al., 2023).

During the event, community members had the opportunity to interact and ask questions regarding the process of converting coconuts into VCO. This interaction served as a form of communication between the students—acting as facilitators—and the community members, who were the program's target audience. Through discussions and hands-on practice, participants gained insight into the stages of VCO production and the importance of precision at every step of the process. This training initiative—incorporating outreach, demonstrations, and evaluation—was implemented as part of a community empowerment program in Pesawaran Regency, aiming to equip the community with the information and skills needed to improve the quality of their VCO products (Khasbullah et al., 2021).

The VCO production initiative in Rumbai Jaya Village demonstrates that leveraging local potential can serve as a strategy for community empowerment. Coconuts—previously utilized primarily for household needs or as basic raw materials—can be transformed into value-added processed products. This aligns with a community service project in Mokong Village, Sumbawa, which showed that coconut resources—previously sold or used in limited ways—could be developed through VCO production training, thereby creating an opportunity for the product to become a village specialty.

In terms of knowledge and skills, the outreach and practical sessions provided the community with an opportunity to gain hands-on insight into the process of transforming coconuts into Virgin Coconut Oil (VCO). The knowledge acquired encompassed not only the definition of VCO but also the various stages of processing the raw material to produce the oil. This aligns with the outcomes of a community service initiative in Peniti Dalam I Village, which employed a combination of outreach, participatory training (via tutorials and discussions), and technical mentoring. These activities demonstrated that practice-based training enhances the community's understanding of VCO production and fosters the participants' readiness to carry out the process independently (Delviana Marbun et al., 2026a).

Processing coconuts into Virgin Coconut Oil (VCO) is also relevant to efforts to boost the community's economic value. Transforming raw materials into derivative products offers opportunities for added value compared to simply utilizing or selling coconuts in their raw state; this demonstrates that VCO production can serve as a form of community empowerment—leveraging coconut resources through a participatory approach—thereby strengthening the local economy (Widiati et al., 2025).

During the activity, community members participated directly in the VCO production process and engaged in discussions with the students regarding coconut utilization and VCO processing. Their participation provided opportunities to observe and practice the processing steps demonstrated during the activity. However, improvements in community knowledge or skills cannot be quantitatively confirmed because no pre-test, post-test, or structured assessment was conducted. Likewise, an increase in community income cannot yet be identified because product sales, profits, and changes in household income were not measured. Therefore, the outcomes at this stage were limited to community participation, direct involvement in VCO production, and the production of VCO, while its longer-term economic impact remains a potential area for further development.

In the long term, this activity is expected to encourage the community to develop coconut processing independently and sustainably. Such development can be achieved by enhancing production skills and improving product quality, hygiene, packaging, labeling, and the marketing of VCO. Experience from community empowerment initiatives in Peniti Dalam I Village demonstrates that training and technical assistance can unlock opportunities for developing household-based businesses centered on coconut products. Therefore, the sustainability of activities in Rumbai Jaya Village could be directed toward continued mentoring; this ensures that the knowledge gained by the community does not stop at the awareness-raising stage but evolves into productive skills and—where feasible—business ventures that leverage local coconut resources.

Community Participation

Community members participated in the outreach, discussion, demonstration, and practical activities related to VCO production. Their involvement was observed through participation in discussions and direct practice during the processing activities. These activities provided opportunities for interaction between the students and the community regarding coconut utilization and VCO processing.

VCO Production Output

The practical activity resulted in the production of VCO from locally available coconuts. Community members followed the processing steps demonstrated during the activity and participated directly in the production process. This output demonstrated the practical application of the coconut processing techniques introduced during the program.

Potential for Local Resource Utilization

The production of VCO demonstrated that locally available coconuts can be processed into a value-added product. However, the economic impact of the activity cannot yet be determined because product sales, profits, and changes in community income were not evaluated. Further evaluation involving product marketing and economic indicators would be required to assess the longer-term benefits of VCO production for the community.

The implementation of the Virgin Coconut Oil (VCO) outreach and production initiative in Rumbai Jaya Village involved several interconnected stages: observation, mapping, discussion, outreach, practical training, evaluation, and follow-up. The observation phase entailed assessing environmental conditions and resource potential within the village. Students also engaged with the local community to identify the potential, needs, and challenges that would serve as the basis for program design. Observations revealed that coconuts represented a local resource with significant potential for development into value-added products. Subsequently, mapping was conducted to determine raw material availability, activity locations, equipment requirements, and potential stakeholders. The findings from the observation and mapping phases were then discussed to finalize the activity format and implementation procedures. These stages were crucial to ensuring the program aligned with the community's specific conditions and potential. Leveraging coconut resources through VCO production is a strategy that has been successfully employed in community empowerment initiatives elsewhere to enhance the commodity's value; for instance, through training programs combining theoretical instruction, discussion, and hands-on practice to improve community knowledge and skills regarding coconut product diversification (Ekyastuti et al., 2023).

The next stage involved an information session and practical training on VCO production. During the information session, students explained the potential of coconuts, the definition and uses of VCO, the necessary ingredients and equipment, and the basic processing steps. The material was presented in person and followed by a discussion, allowing community members to ask questions or share their thoughts on the VCO production process. Following the information session, the activity proceeded with a demonstration and hands-on practice; students demonstrated the steps for processing coconuts into VCO, after which community members were given the opportunity to observe and carry out the process themselves.

1. Coconut Milk Production: The coconut was husked and removed from its shell, and the flesh was thoroughly washed. The coconut flesh was then finely grated and squeezed through a straining cloth to extract pure coconut milk. No water was added during this process to facilitate the subsequent separation of the oil content.
2. Oil separation process: Pure coconut milk is placed in a clean container and left to stand for approximately one hour to allow the heavier components to settle. Next, the water layer is separated, and the oil fraction is collected. The coconut milk is then agitated for about 30 minutes to help break the emulsion, followed by another resting period of 24 hours to ensure complete separation of the oil and water.
3. VCO filtration: After the 24-hour resting period, the oil layer floating on top is carefully collected using a clean spoon. The oil is then filtered through a thin cloth or fine mesh strainer to remove any remaining impurities or particles.
4. Packaging and storage: The filtered VCO is poured into clean, dry bottles and sealed tightly. The VCO should be stored in a clean, dry place away from direct sunlight. The resulting VCO typically ranges in color from clear to pale yellow and possesses the characteristic aroma of fresh coconut.
5. Important considerations The quality of the VCO produced during the activity was considered from observable aspects of the production process, particularly the freshness of the coconuts, cleanliness of the equipment and containers, and proper filtration and storage. Participants were introduced to the importance of using fresh coconuts and maintaining cleanliness throughout the production process to reduce contamination and support the quality of the resulting training product. The filtration process was also demonstrated to separate the oil from remaining impurities before storage. However, the VCO produced in this activity was not subjected to physicochemical or microbiological laboratory testing, nor was it assessed against a specific quality standard. Therefore, the resulting VCO is presented as a product of the practical training and learning process rather than as a product that has been scientifically verified to meet a particular quality or safety standard.

An approach combining outreach, tutorials, discussions, and hands-on practice is considered suitable for empowerment activities, as the community gains not only theoretical information but also practical experience in the processing operations. This aligns with the method employed by Marbun, who utilized outreach, participatory training—featuring tutorials and discussions—and technical guidance during VCO production training in Peniti Dalam I Village.

Evaluation during the activity was conducted through direct observation of participants' involvement in discussions, question-and-answer sessions, demonstrations, and hands-on practice. The observations focused on participants' participation in asking questions, responding to explanations, following the demonstrated stages, and taking part in the VCO production process. The evaluation was carried out by the KKN students as facilitators during the activity. However, the activity did not use a structured scoring rubric, pre-test and post-test, or a specific competency assessment instrument. Therefore, the results cannot be interpreted as a statistically or quantitatively measured improvement in participants' knowledge or skills. Based on the observations during the activity, community members participated in the discussion and practical process and were exposed directly to the basic stages of coconut processing into VCO. Thus, the evaluation findings are presented as evidence of participant engagement and practical exposure during the training, rather than as evidence of measured learning improvement (Legasari & Muryati, 2021).

The follow-up phase of this activity has not yet involved structured post-program monitoring. Based on the final report, there is no documentation regarding a post-program monitoring schedule, the specific local groups or parties responsible for production continuity, or evidence that the community has continued VCO production independently. Consequently, further development is not presented as an achieved outcome but rather as a recommendation for the program's sustainability. Suggested follow-up actions include technical assistance to maintain product quality and hygiene, the development of packaging and labeling, and the introduction of marketing strategies should the community wish to develop VCO as a commercial product. A continuous mentoring approach is also employed in other VCO-based community empowerment initiatives, demonstrating that training can be extended through skills strengthening and product development tailored to the community's potential (Delviana Marbun et al., 2026). Thus, the activities in Rumbai Jaya Village can be viewed as an initial stage in introducing skills for processing coconuts into VCO, while the sustainability of production and business development still requires ongoing mentoring and the continued involvement of the community or local groups.



Figure 1. Grating of coconut flesh as part of the VCO production process.



Figure 2. Sedimentation process of virgin coconut oil.



Figure 3. Information dissemination materials on VCO production.



Figure 4. Group discussion and participant engagement during the VCO production activity.

Following the session on VCO production—which included both an overview and a practical demonstration—participants were given the opportunity to ask questions regarding the processing method, ingredients used, processing duration, and the product's potential applications and economic value. Questions raised during the session served as a basis for evaluation and discussion, helping to clarify the various stages of VCO production. Specific points clarified during the activity included the product's selling price, the use of filtering materials, the settling process, the use of coconut milk, and the process of whipping the coconut cream.

In terms of economic value, the produced VCO can command a selling price of approximately IDR 250,000/L, or around IDR 250/mL, based on a reported selling price for VCO produced by a local producer in Masohi, Maluku Tengah, Maluku (Trubus, 2020). This figure offers an initial indication of the product's economic potential should it be further developed with attention to quality, packaging, and marketing. During the filtration stage, filter paper is used to obtain cleaner oil. Materials such as headscarf fabric are not recommended as direct substitutes, as their material characteristics, fiber structures, and filtration capabilities differ from those of filter paper. Therefore, the choice of filtration material should be aligned with the intended purpose and the desired quality of the final product.

The settling process is carried out in two stages. The first stage aims to help separate the oil from the water remaining in the coconut milk. Subsequently, the second stage facilitates the separation of the *blondo* (sediment) from the resulting coconut oil. These settling stages are necessary to ensure optimal component separation. The primary ingredient used in the VCO production process is pure coconut milk, without the addition of water; using pure coconut milk preserves the integrity of the raw material in accordance with the adopted processing method. Regarding the coconut cream agitation step, manual agitation is typically performed for approximately 30 minutes. Alternatively, to reduce manual labor, a blender may be used for about 10 minutes, provided that the process and the condition of the ingredients are carefully monitored.

CONCLUSION

The outreach and VCO production activities in Rumbai Jaya Village, Kempas District, Indragiri Hilir Regency, provided opportunities for community participation in learning and practicing coconut processing into VCO. The activities involved presentations, demonstrations, discussions, and practical exercises, through which participants directly engaged in the VCO production process. The program resulted in the production of VCO from locally available coconuts and provided participants with direct exposure to the basic processing steps. However, improvements in knowledge, skills, income, and long-term economic impact could not be quantitatively confirmed because no structured assessment of these indicators was conducted. The utilization of coconuts for VCO production therefore represents a potential value-added opportunity that may be further developed through improvements in production quality, hygiene, packaging, labeling, and marketing. Further evaluation is needed to assess the economic benefits and long-term sustainability of the program.

REFERENCE

- Chaidir, R. R. A., Suharli, L., Kusdianawati, K., & Islam, I. (2023). Pemanfaatan potensi lokal Desa Mokong Sumbawa NTB melalui pelatihan pembuatan Virgin Coconut Oil (VCO). *KACANEGARA Jurnal Pengabdian Pada Masyarakat*, 6(3), 388–394. <https://doi.org/10.28989/kacaneegara.v6i3.1594>
- Delviana Marbun, S., Herawatiningsih, R., Tavita, G. E., Togatorop, J. H., & Sitohang, J. (2026a). Pelatihan pembuatan Virgin Coconut Oil (VCO) bernilai ekonomi untuk meningkatkan kesejahteraan masyarakat di sekitar khdtk untan, Desa Peniti Dalam I.
- Delviana Marbun, S., Herawatiningsih, R., Tavita, G. E., Togatorop, J. H., & Sitohang, J. (2026b). Pelatihan pembuatan Virgin Coconut Oil (VCO) bernilai ekonomi untuk meningkatkan kesejahteraan masyarakat di sekitar khdtk untan, Desa Peniti Dalam I. 1375–1386. <https://doi.org/10.31764/jpmb.v10i2.38784>
- Eduardo Simarmata, J., Bukifan, M., Peter Gelu, L., Chrisinta, D., Wayan Sukerti, N., Erlina, N., & Bagus Putu Mardana, I. (2025). PEMBERDAYAAN MASYARAKAT LOKAL DALAM PEMBUATAN VIRGIN COCONUT OIL DENGAN TEKNOLOGI ALAT PARUT DAN PERAS SEDERHANA UNTUK MENGOPTIMALKAN PEREKONOMIAN. 9(1), 233–242. <https://doi.org/10.31764/jmm.v9i1.28127>
- Ekyastuti, W., Astiani, D., Widiastuti, T., Roslinda, E., & Amalia, R. (2023). Pelatihan Pembuatan Virgin Coxonut Oil Untuk Diversifikasi Prosdud Minyak Kelapa. *JMM (Jurnal Masyarakat Mandiri)*, 7(2), 1015–1030. <https://doi.org/10.31764/jmm.v7i2.13158>
- Khasbullah, F., Priyadi, Mangiring, W., & Kurniawati, N. (2021). Pelatihan Pembuatan Virgin Coconut Oil Dengan Metode Fermentasi Alami Termodifikasi Untuk Peningkatan Pendapatan Kelompok Wanita Tani Gedong Tataan, Kabupaten Pesawaran. 1, 62–69. <https://doi.org/10.23960/seandanan.v1i2.16>
- Legasari, L., & Muryati. (2021). Peningkatan Softskill Dan Hardskill Masyarakat Desa Lecah Melalui Pelatihan Pembuatan VCO (Virgin Coconut Oil). 5(4), 1818–1827. <https://doi.org/10.31764/jmm.v5i4.5053>
- Sunyanti, S., Ismail, I., Anggun, A., Anisyah, A., Filihi, N., Halumi, W. O., Alfin, A., Putri, S., Rany, R., Saputra, A., Rifaldi, R., Aimin, M., Muhaimin, A., & Sabrin, M. (2025). Program Pembuatan Virgin Coconut Oil (VCO) sebagai Solusi Pemberdayaan Ekonomi Masyarakat di Desa Lasori. *KOMUNITA: Jurnal Pengabdian Dan Pemberdayaan Masyarakat*, 4(4), 1052–1057. <https://doi.org/10.60004/komunita.v4i4.293>
- Trubus. (2020). Geliat Bisnis Minyak Perawan. Trubus.Id.
- Widiati, S., Daniyah, F., & Yalpandi, M. A. (2025a). Pemberdayaan masyarakat melalui pembuatan virgin coconut oil (VCO) sebagai penguatan ekonomi berbasis potensi kelapa. *Jurnal Inovasi Hasil Pengabdian Masyarakat (JIPEMAS)*, 8(3), 551–565. <https://doi.org/10.33474/jipemas.v8i3.24132>
- Widiati, S., Daniyah, F., & Yalpandi, M. A. (2025b). Pemberdayaan masyarakat melalui pembuatan virgin coconut oil (VCO) sebagai penguatan ekonomi berbasis potensi kelapa. *Jurnal Inovasi Hasil Pengabdian Masyarakat (JIPEMAS)*, 8(3), 551–565. <https://doi.org/10.33474/jipemas.v8i3.24132>