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Empowering Sidomekar Village Community through orange peel-based body scrub production training

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ABSTRACT

One of the villages that already has a Memorandum of Understanding (MoU) as a fostered village of Jember University is Sidomekar Village located in Semboro District, Jember Regency, East Java. The problem of Sidomekar Village that is highlighted is the low selling price of Semboro oranges during the harvest season, sometimes only Rp2000 per kg, thus negatively impacting farmers' income. The solution to this problem is to utilize orange peel waste as an active ingredient in body scrub preparations so that it can be used as one of the village's superior products. This community service program aims to provide solutions to the problems faced by partners while increasing the Village Development Index, especially in terms of the Economic Resilience Index through the development of superior village products based on orange peel waste. This service program was carried out by providing socialization attended by 35 participants regarding the process of making and using tools to produce body scrubs from orange peels. The increase in knowledge and skills of participants increased by 90% based on the active participation in the socialization event during the question and answer session and practice of making body scrubs from orange peels.

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1. INTRODUCTION

Sidomekar Village is a lowland area with an area of ± 879 ha. North it borders Tanggul Wetan Village; to the south, it borders Umbulrejo Village; to the east, it borders Paleran Village and Tegalwangi Village; while to the west, it borders Semboro Village. Sidomekar Village has a population of 13,979 people, consisting of 6,969 male residents and 7,010 female residents. Most Sidomekar Village residents have professions as entrepreneurs and farmers (Mulyono et al., 2023).

Sidomekar Village has 25 ha of agricultural land planted with orange plants and produces an average of 7 tons of oranges per hectare during the harvest season. When the harvest season arrives, farmers sell semboro oranges to collectors. The price of oranges during the harvest season tends to be low, sometimes only around IDR 2,000 per kg. One of the problems in the spotlight is the low selling

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price of semboro oranges during the harvest season, which has a negative impact on farmers' income. In fact, Semboro oranges have the potential to be used as a superior village product (Martilova et al., 2024; Yevale et al., 2024).

The problem identified in Sidomekar Village is the lack of product diversification using semboro orange as the raw material. During the harvest season, the selling price of oranges is able to be very low, which is detrimental to farmers. The local community in the Semboro Village area still does not utilize oranges optimally and does not have knowledge and understanding about product diversification due to limited infrastructure and lack of public access to information and technology. This product diversification aims to improve the economy of Sidomekar Village (Charismaraya et al., 2023).

In order to overcome problems, develop the potential of Semboro Village, and improve the economic welfare of the community, a comprehensive community service program is proposed. The community service program would be carried out in stages, including providing training materials, outreach, demonstrations in the field, making and providing appropriate technological tools, and assistance in making scrub products from orange peel. With this service activity, it is hoped that the people of Sidomekar Village would be able to independently produce body scrubs from orange peels and make them the village's superior product.

The village's leading commodity, namely oranges, can be modified into products that are more beneficial and have a higher economic value. Orange peel, which is a by-product of the fruit, can be utilized to create high-quality products. The orange plant is a perennial fruit plant originating from Asia and was first cultivated in China. The content of orange peel offers various benefits, ranging from sedative effects and skin-softening properties to functioning as a mosquito repellent. Sweet orange peel possesses various bioactive properties and health benefits due to the presence of diverse chemical compounds, including essential oils, flavonoids, carotenoids, steroids, terpenoids, alkanes, and ethyl esters. This chemical composition provides antioxidant properties to sweet orange peel, which can protect the body from oxidative damage caused by free radicals (Friatna et al., 2019; Mojo et al., 2024). Orange peel can be utilized as a raw material for the production of body scrubs that are guaranteed to be safe, as they are made from natural ingredients. This differs from conventional cosmetics, which often contain chemical substances that may pose potential risks to skin health. Body scrubs formulated with orange peel extract possess antioxidant properties capable of eliminating microorganisms on human skin (Mubarok et al., 2023; Padmadewi & Mahyuni, 2021). With the large number of uses of conventional cosmetics that contain chemicals, making natural body scrubs is a solution to overcome this problem, so it has promising market prospects.

Product diversification is an effort to increase sales by creating various types of new products, thereby generating new markets. The creation of new products prevents consumers from feeling bored, thus increasing purchase interest and adding value. Added value in the agricultural sector is the difference between the value of the final product and the cost of raw materials and auxiliary materials used in the production process. Efforts to increase added value can be carried out through processing, preservation, packaging, and improving the quality of agricultural commodities. Increasing added value plays an important role in improving farmers' income, especially in rural areas. Therefore, training and education for farmers are essential so that they can optimally process agricultural products, increase their income, and strengthen food security at both the household and rural levels (Adhitya et al., 2022; Noor et al., 2023; Rahayu et al., 2025). In order to overcome problems, develop the potential of Semboro Village, and improve the economic welfare of the community, a comprehensive community service program is proposed. The community service program would be carried out in stages, including providing training materials, outreach, demonstrations in the field, making and providing appropriate technological tools,

and assistance in making scrub products from orange peel. With this service activity, it is hoped that the people of Sidomekar Village would be able to produce body scrubs from orange peels independently and make them the village's superior product.

2. METHODS

This assisted village service program focuses on the production and marketing of superior products in the form of scrubs based on orange peel waste from Sidomekar Village. The implementation of the Community Service Program Based on Development of Assisted Villages with the Sidomekar Village community would be implemented in several stages as shown in the Figure 1.

Figure 1. Stages of community service activities in Sidomekar Village

Counseling/Socialization

The outreach stage was carried out by providing an in-depth understanding to the people of Sidomekar Village regarding the potential for using orange peel waste as raw material for economically valuable products. This outreach activity was carried out at the end of June 22, 2024. This process began by explaining the problem of waste which is often considered useless, then connected it to opportunities for processing waste into beauty products such as body scrubs. In this session, the public is invited to understand the benefits of orange peel, both in terms of natural ingredients that are beneficial for the skin and added value that is able to improve the economy. Apart from that, there was a demonstration of the process of making a body scrub from orange peel, from initial processing to becoming a ready-to-use product, with the aim of providing practical insight and encouraging people to take advantage of this sustainable business opportunity.

Counseling Regarding the Process of Making Body Scrubs

The education regarding the process of making body scrubs in Sidomekar Village aims to empower the community to use orange peel waste as the main ingredient for beauty products. This activity was attended by residents and officials from Sidomekar Village, guided by the Assisted Village team and Mrs. Lecturer. This second outreach activity was carried out at the end of July 27, 2024. In this activity, participants were given comprehensive training starting from introducing the benefits of orange peel, processing techniques, to the stages of body scrub production.

Test Scrub Products and Evaluate with Partners

The testing stage for the scrub product was carried out by distributing samples of the scrub to the people of Sidomekar Village as a first step to measure the response and acceptance of the product that had been produced. This process involves collecting input and feedback from the public regarding the quality, texture, aroma, benefits and packaging of the product. Based on this input, a comprehensive evaluation is carried out with partners to identify aspects that need to be improved or perfected so that the product is able to optimally meet the needs and preferences of local communities. This stage aims

to ensure that the body scrub produced is of the best quality and meets consumer expectations, so as to increase the competitiveness of the product on the market.

Scale Up Superior Product in the Form of a Body Scrub Based on Orange Peel Waste

The next stage after socialization and evaluation was carried out was the scale up of Sidomekar Village's superior product in the form of Scrub from Orange Peel Waste. One of the outputs donated to the Sidomekar Village Community was TTG in the form of a machine for making body scrubs from Orange Peel Waste in Sidomekar Village. The scale up process for Scrub products from Orange Peel Waste involves Karang Taruna and PKK (Family Welfare Empowerment) women from Sidomekar Village. The resulting products are then standardized before being marketed online and offline. Online marketing is carried out using social media and e-commerce, while offline marketing is carried out at the Sidomekar Village Office.

Controlling the Production and Marketing Processes

This process is carried out by controlling the production and marketing processes once a month to ensure that the materials, processes, and products produced meet specifications and are acceptable to the public. Meanwhile, product marketing control is carried out by directly reviewing the offline and online marketing processes. Marketing controls also review consumer feedback to take corrective measures if necessary.

Table 1. The schedules of the program implementation

Stage 1. Counseling/Socialization	
Activity	Conducting socialization activities regarding the potential utilization of orange peel waste as a raw material with economic value.
Objective	The community understands the potential and benefits of orange peel waste.
Implementation time	Fourth week of June 2024
Stage 2. Counseling Regarding the Process of Making Body Scrubs	
Activity	Conduct education on the process of making body scrubs
Objective	Empower the community to utilize orange peel waste effectively
Implementation time	Fourth week of July 2024
Stage 3. Test Scrub Products and Evaluate with Partners	
Activity	Conduct testing and evaluation of the body scrub together with partners.
Objective	Obtain input and feedback from the community
Implementation time	First week of August 2024
Stage 4. Scale Up Superior Product in the Form of a Body Scrub Based on Orange Peel Waste	
Activity	Improve product quality and deliver appropriate technology (TTG) in the form of a body scrub-making machine
Objective	The community is able to improve product quality
Implementation time	Third week of August 2024
Stage 5. Control Production and Marketing	
Activity	Monitor production and marketing activities
Objective	The community is able to maintain product quality
Implementation time	September 2024

3. RESULTS AND DISCUSSION

Service begins with product socialization. Product socialization was carried out after the formulation of the scrub product from orange peel waste had been carried out; this formula could be a reference for the public when making products. The formula for this product uses orange peel that has been dried into a simple form. The orange peel is cleaned from the fruit segments and washed until clean, then reduced in size and dried in the oven at a temperature of 50-55°C for 2 days or in the sun for 5-6 days. The drying process aims to reduce the water content in the material and prevent it from easily being damaged, so it is able to be stored for a long time. Reducing the water content is able to stop the enzymatic process so as to prevent a decrease in quality or damage to the simplicia. The presence of water in the sample is able to trigger the growth of mold and other microbes (Handoyo & Pranoto, 2020). The process of making Semboro orange peel simple powder is presented in Figure 2.

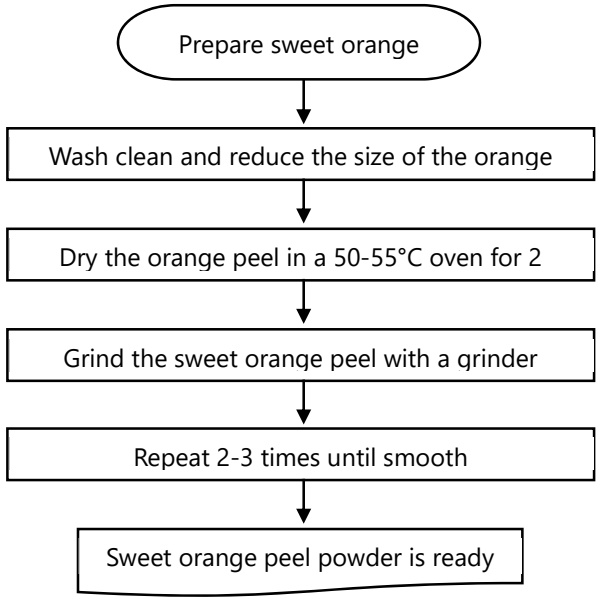

Figure 2. Flow diagram of the process for making semboro orange peel simplicia powder

The dried simplicia would be reduced in size to powder with the help of a grinder. This process is repeated 2-3 times until a fine, sweet orange peel powder is obtained. Apart from orange peel, other ingredients used are stearic acid, TEA, cetyl alcohol, sodium lauryl sulfate, propylene glycol, liquid paraffin, methyl paraben, propyl paraben, essential oils, and distilled water. Making body scrubs begins with preparing the tools and materials, as already mentioned. The initial process is to heat 1 liter of distilled water in a mixer equipped with a heater to a temperature of around 60°C. Once the temperature has been reached, then add 30 grams of stearic acid and 6 grams of cetyl alcohol until the two ingredients dissolve, accompanied by stirring in the mixer. Stirring continues while adding ingredients such as 9.58 ml or 3 tablespoons of TEA, 7.5 grams of Sodium Lauryl Sulfate, 43.27 ml of Propylene Glycol or 13 tablespoons, 1 drop of liquid paraffin, methylparaben as much as 0.9 grams, and propylparaben as much as 0.03 grams slowly and gradually. Put 300 grams of Semboro orange peel powder into the mixer until evenly mixed. The final process is adding orange essential oil by spraying until the aroma is sufficient, accompanied by stirring until the scrub preparation is homogeneous. The scrub preparation is then stored in a safe and airtight container to prevent external contamination and keep it durable.

The emulsifier or emulsifying agent contained in the material, namely stearic acid, and tea, functions to reduce the interfacial tension between oil and water and surrounds the dispersed droplets with a strong layer, thereby preventing coalescence and breakdown of the dispersed phase (Pramuditha, 2016). The surfactant contained in the material, namely sodium lauryl sulfate, functions as a cleaner used in the washing and cleaning sector (Alfauziah, 2019). There are methyl paraben and propyl arabene, which act as preservatives because they are effective antibacterial and antifungal ingredients, so they are able to make the scrub last longer (Dhurhania, 2019). Orange-scented essential oil is responsible for enhancing the aroma of the body scrub product so that it is able to make consumers more interested (Azizah et al., 2022). The process for making body scrub is presented in Figure 3.

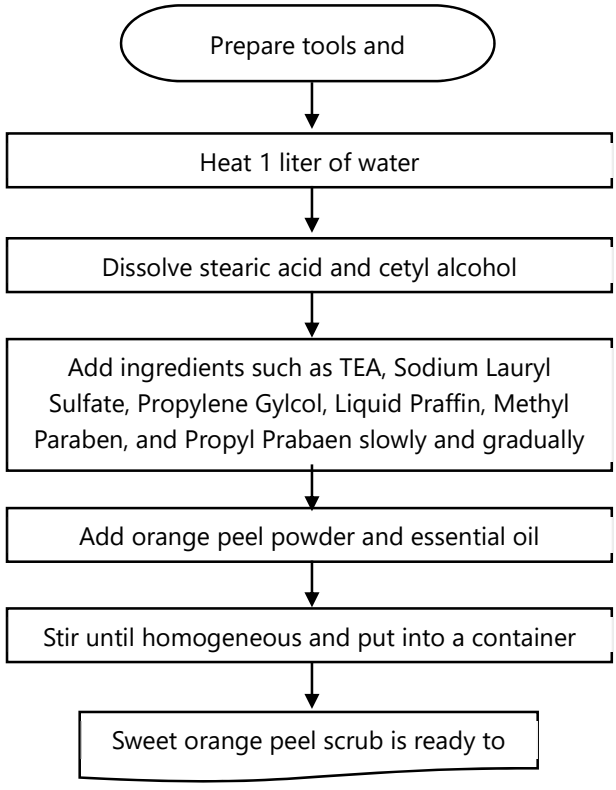

Figure 3. Flow chart for making body scrubs

The results that have been achieved are that a scrub formula has been obtained which is used as a sample as in Figure 4. The resulting scrub is yellow in color and has a distinctive orange odor. The pH test results show a pH of 6, which indicates that the pH enters the skin's pH criteria, namely 5-7, so it would not cause irritation (Sulistiyana, 2022). The resulting spreadability and adhesion are also very good.

The socialization on making scrubs and providing TTG tools for producing scrubs from orange peel waste was carried out in two stages. On July 16, 2024, the first stage of socialization regarding how to make scrubs was carried out with 18 participants. The second stage was carried out on October 21, 2024, with the agenda of providing equipment in the form of TTG (Appropriate Technology) and training on how to use it with a total of 35 participants. The aim of implementing this activity is to find solutions to the problems that exist in Sidomekar Village. One of the problems in the spotlight is the low selling price of semboro oranges during the harvest season, which harms farmers' income. Semboro oranges

have considerable potential to be produced as a superior village product. The solution to this problem is to use orange peel waste as a scrub preparation material so that it is able to be used as one of the village's superior products.

Table 2. Scrub making formula

Material Name	Mass	Concentration Standards	Function
Sweet Orange Peel Powder	300 g	280-320 g	Active Substance
Stearic Acid	10%	1-20%	Emulgator
TEA	3%	2-4%	Emulgator
Cetyl Alcohol	2%	2-5%	Oil Base
Sodium Lauryl Sulfate	2,5%	0,5-2,5%	Surfactant
Propylene Glycol	15%	15-30%	Humectant
Liquid Parrafin	0,005%	0,005%	Oil Base
Methyl Paraben	0,3%	0,02-0,03%	Presertavive
Prophyl Paraben	0,01%	0,01-0,6%	Preservative
Aquadest	1000 g	-	Solvent
Essential Oil	-	-	Aroma

Figure 4. The result is a scrub product from orange peel

Socialization regarding the potential of orange peel and how to make body scrubs was carried out at the Sidomekar Village Hall, Semboro District, Jember Regency, attended by 23 participants from Sidomekar Village residents (Figure 5 and Figure 6). This socialization aims to enable the public to understand the process and potential of orange peel as an ingredient for making body scrubs PROBANGDEBI Team (Assisted Village Service Program). This socialization contains information about the potential of orange peel as an ingredient for making body scrubs because orange peel contains antioxidants, vitamin C, and others that are good for skin health, how to make body scrubs from orange peels, and what tools are used in making body scrubs. The results of this socialization received a good response from the residents of Sidomekar Village. One of the residents' responses was Mrs. Nanik, who gave a positive comment that the presentation that had been carried out was one solution to the problems in Sidomekar Village because several people experienced losses due to many oranges being sold at low prices. Based on the socialization that had been carried out, participants were very enthusiastic about the presentation of material regarding scrub products from orange peel. This is because oranges are a superior commodity produced by Sidomekar Village, Semboro District.


Figure 5. Presentation of material to socialization participants
Figure 6. Photo with residents and service team

The second stage of socialization was carried out with the agenda of handing over the TTG tools and training on how to use the scrub-making tools, which was attended by 28 participant from Sidomekar Village. This activity began with the provision of TTG tools in the form of a mill and mixer, which were given to Sidomekar village officials for community use. Mrs. Siti, as a representative of the residents of Sidomekar Village, became a volunteer in the trial of making body scrubs using the TTG tool with the PROBANGDEBI Team. The manufacturing stages are carried out by reducing the size using a grinder. Once the size is deemed sufficient, the ingredients are weighed. The ingredients that have been weighed according to the measureme nts are mixed using a mixer that has a heater in the mixer. The final stage is packaging the resulting body scrub product. Mrs. Siti, a volunteer who took part in making the scrub, responded that the process of making the scrub was very easy because of the tools used and the ease of operation of the tools. After conducting socialization, the machine was handed over to the Head of Semboro Village, Semboro District, Jember Regency. Documentation is shown in Figure 8.



Figure 7. Experiment in making body scrubs using TTG tools with the PROBANGDEBI Team and one of the residents of Sidomekar Village
Figure 8. Handover of tools for making body scrubs

This activity ended with the community trying an orange peel scrub using a scrub-making tool and getting a positive response from the community. Based on the feedback, most participants 94% expressed satisfaction with the texture and aroma of the scrub produced. Residents also stated that the orange peel based scrub has the potential to be used personally or sold in local markets. After the activity, the TTG equipment was handed over to the Sidomekar Village authorities to be used for continued production activities. Currently, the community together with local women's groups are preparing the production process and planning to market the body scrub product through offline and online marketing.The activity show that the training not only improved the community's skills but also

fostered their motivation and readiness to develop new business opportunities based on the utilization of orange peel waste.

This program has successfully empowered the community of Sidomekar Village. The activity aligns with similar empowerment initiatives, such as those conducted by Amini et al. (2024), who trained housewives to manage household waste and produce compost independently; Azizah et al. (2025), who empowered the PKK mothers of Andongsari Village to process banana stem waste into products with economic value; Hendrawati et al. (2023), who provided training to the Nusaloka women's association in South Tangerang City to process aloe vera into healthy drinks and masks; Mendo et al. (2025), who empowered the community of Haya-Haya Village through innovative banana products; and Mutalib et al. (2025), who trained fishermen's wives in Tinangkung Village to process fish catches into various high-value food products. The main distinction of this program lies in its focus on waste utilization and the development of products based on Appropriate Technology (TTG), which are capable of creating sustainable business opportunities at the village level. From an economic perspective, this activity has contributed to improving the community's income resilience. The use of orange peel as a natural ingredient for body scrub products has opened up new sources of income. In terms of sustainability, the provision of TTG equipment enables the community to continue production independently without relying on external parties. The PROBANGDEBI team also played a role in assisting the initial promotion by introducing packaging designs and brand identities that meet market standards.

Overall, this program has not only succeeded in transferring knowledge and technology but has also enhanced the economic capacity and entrepreneurial spirit of the Sidomekar Village community. The combination of hands-on training, product testing, and marketing assistance demonstrates that community empowerment based on local resources and circular economy principles can produce tangible and sustainable results.

4. CONCLUSION AND RECOMMENDATIONS

Community service activities aimed at Sidomekar village residents provide understanding and skills in making body scrubs from orange peel waste using a blender machine and several chemicals. The success of this activity is measured by the ability of Sidomekar village residents to understand and apply the process of making orange scrubs independently, which is expected to increase independence and efficiency in providing scrubs from orange peels and have a positive impact on environmental management. This community service activity also contributed to improving the community's economic resilience through the commercialization of orange peel-based scrub products, creating oppurtunities for sustainable village entrepreneurship.

Collaborate with other parties, such as local governments, educational institutions, or business actors to support the marketing of body scrub products outside the village. Establishing this collaboration is also a way to promote and brand products so that residents develop brands for their body scrub products, including packaging designs that are attractive and meet market standards. Increase discussion about the importance of orange peel as an active ingredient in nature-based cosmetics, especially considering the market trend of environmentally friendly cosmetics. Additionally, by adding quantitative data, the research methodology is able to be refined. For program sustainability, post-program monitoring should be conducted to evaluate ongoing production and marketing activities. Future efforts can focus on packaging improvements, digital marketing, and collaboration with MSMEs or e-commerce platforms to long-term economic benefits for the Sidomekar Village community.

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REFERENCES

Adhitya, B., Zumaeroh, Z., & Winarto, H. (2022). Diversifikasi produk dan ekspansi pemasaran melalui media sosial. *WIKUACITYA: Jurnal Pengabdian Kepada Masyarakat*, *1*(1), 75-79. https://doi.org/10.56681/wikuacitya.v1i1.19

Alfauziah, T. Q. (2019). Mengenal kosmetik pembersih wajah micellar water dan perkembangannya. *Majalah Farmasetika*, *3*(5), 94-97. https://doi.org/10.24198/farmasetika.v3i5.21635

Amini, H. W., Syarifah, R. D., Maulina, W., Shofa, G. Z., Sholihah, A. F., Prasetyani, T. F. E., ... & Syaifullah, R. Y. (2024). Penggunaan Trash Can-Composter (TCC) untuk pengolahan sampah organik dan penghasil kompos bagi warga Desa Tanah Wulan, Bondowoso. *Dedikasi: Jurnal Pengabdian kepada Masyarakat*, *4*(2), 100-109. https://doi.org/10.31479/dedikasi.v4i2.313

Azizah, S. R., Qotrunnada, N., Suraya, S. V., Ferdiansyah, H. Y., & Pratiwi, E. D. (2022). Pemanfaatan essential oils sebagai aromaterapi dalam perawatan kulit. *MEDFARM: Jurnal Farmasi Dan Kesehatan*, *11*(1), 62–77. https://doi.org/10.48191/medfarm.v11i1.98

Azizah, Y., Amin, S., Maspufah, H., & Supeni, N. (2025). Pelatihan pengolahan limbah gedebog pisang menjadi keripik sebagai produk ramah lingkungan. *Welfare: Jurnal Pengabdian Masyarakat*, *3*(1), 64-69. https://doi.org/10.30762/welfare.v3i1.2017

Charismaraya, K. P., Yahya, S. S. D., Masyitoh, A., Kholishoh, A., & Zainudin, A. (2023). Pengembangan potensi dan pendampingan proses produk halal terhadap Jus Jeruk Sidomekar sebagai produk unggulan desa. *EDUAMBDIMAS: Jurnal Edukasi Pengabdian Masyarakat*, *2*(4), 232–237. https://doi.org/10.36636/eduabdimas.v2i4.3164

Dhurhania, C. E. (2012). Penetapan kadar metilparaben dan propilparaben dalam hand and body lotion secara high performance liquid chromatography. *Jurnal Farmasi (Journal of Pharmacy)*, *1*(1), 38-47.

Friatna, E. R., Rizqi, A., & Hidayah, T. (2019). Uji aktivitas antioksidan pada kulit jeruk manis (Citrus sinensis) sebagai alternatif bahan pembuatan masker wajah. *Pelita: Jurnal Penelitian Mahasiswa UNY*, *6(2)*, 1–10.

Handoyo, D. L. Y., & Pranoto, M. E. (2020). Pengaruh variasi suhu pengeringan terhadap pembuatan simplisia daun mimba (Azadirachta Indica). *Jurnal Farmasi Tinctura*, *1*(2), 45-54. https://doi.org/10.35316/tinctura.v1i2.988

Hendrawati, T. Y., Gustia, H., ariatmi Nugrahani, R., Hasyim, U. H., Ismiyati, I., & Agdila, A. F. (2023). Pengabdian masyarakat pelatihan pembuatan produk minuman sehat dan masker aloe vera di komunitas pengajian Nusa loka Serpong Kota Tangerang Selatan. *Jurnal Pengabdian Masyarakat Teknik*, *5*(2), 65-70. https://doi.org/10.24853/jpmt.5.2.65-70

Martilova, D., Pebri, N. W., Kurniawati, N. A., Maysaroh, D. A., & Wahyuni, E. S. (2024). Orange scrub with lemongrass (ORRIN). *Transformasi Masyarakat: Jurnal Inovasi Sosial dan Pengabdian*, *1*(4), 151-156. https://doi.org/10.62383/transformasi.v1i4.738

Mendo, A. Y., Abdul, I., & Yantu, I. (2025). Pengembangan produk kreatif: Wafel pisang coklat merah dan bakso pisang sebagai alternatif cemilan sehat inovatif. *GANESHA: Jurnal Pengabdian Masyarakat*, *5*(2), 651–657. https://doi.org/10.36728/ganesha.v5i2.5101

Mojo, T., Sutrisno, & Marfuah, S. (2024). Chemical content and pharmacology of sweet orange (Citrus sinensis) fruit peel: A review. *E3S Web of Conferences*, *481*, 06002. https://doi.org/10.1051/e3sconf/202448106002

Mubarok, Z., Aulia, A. F., Listiowati, E., Pristian, C. P., & Fikroh, R. A. (2023). Analisis kandungan senyawa minyak atsiri pada komoditas kulit buah jeruk dalam berbagai macam metode distilasi. *Fullerene Journal of Chemistry*, *8*(2), 44-52. https://doi.org/10.37033/fjc.v8i2.597

Mulyono, R. D. A. P., Aprilianto, B., Rosa, D. V., Prasetyo, H., & Afandi, M. F. (2023). Sustainable tourism pada pengembangan Situs Beteng di Desa Sidomekar Kecamatan Semboro Kabupaten Jember. *Community Development Journal*, *4*(2), 1245–1252. https://doi.org/10.31004/cdj.v4i2.13046

Mutalib, Y., Sululing, S., Ayatullah, M. W., Ogotan, A. A., & Sangkia, F. D. (2025). Pemberdayaan berbasis masyarakat melalui produksi makanan berbahan baku ikan. *PaKMas: Jurnal Pengabdian Kepada Masyarakat*, *5*(1), 55-62. https://doi.org/10.54259/pakmas.v5i1.3213

Noor, T. I., Sulistyowati, L., Yudha, E. P., Saidah, Z., Wicaksono, S. L., Syakirotin, M., & Widhiguna, I. P. S. R. (2023). Peningkatan nilai tambah produk pertanian guna menjadikan desa tahan pangan. *Abdimas Galuh*, *5*(1), 560-568. https://doi.org/10.25157/ag.v5i1.9911

Padmadewi, A. S. M., & Mahyuni, L. P. (2021). Pemberdayaan petani padi di Desa Mas, Ubud, Bali melalui pelatihan pembuatan lulur tradisional berbahan dasar beras. *Dinamisia: Jurnal Pengabdian Kepada Masyarakat*, *5*(6), 1453-1464. https://doi.org/10.31849/dinamisia.v5i6.6304

Pramuditha, N. (2016). Uji Stabilitas fisik lulur krim dari ampas kelapa (Cocos nucifera L.) dengan menggunakan emulgator anionik dan nonionik. *Viva Medika, 53*(9), 1689–1699.

Rahayu, N., Maryanti, S., Wardiningsih, R., & Noviawan, L. A. (2025). Diversifikasi olahan singkong untuk peningkatan ekonomi masyarakat Desa Renggata Kabupaten Lombok Tengah. *Jurnal Abdimas Independen*, *6*(1), 1-8. https://doi.org/10.29303/independen.v6i1.1673

Sulistiyana. (2022). Uji fisikokimia dan sensorik green cosmetic lulur beras putih dengan kombinasi kulit jeruk manis (Citrus X sinensis) dan kulit batang kayu manis (Cinnamomum burmannii). *SPIN Jurnal Kimia & Pendidikan Kimia*, *4*(2), 155–162. https://doi.org/10.20414/spin.v4i2.5549

Yevale, Y. B., Jaju, S. O., Khendke, A. D., & Awaghad, S. K. (2024). Revitalizing beauty: A comprehensive study on fenugreek-infused herbal peel off mask enhanced with charcoal, orange peel, and coconut oil. *EPRA International Journal of Research and Development (IJRD)*, *9*(4), 273–281.