JSCS Journal of Sustainable Community Service
E-ISSN 2986-3384
Journal of Sustainable Community Service
Vol. 6 No. 2 (2026), pages: 39–48

Optimising Backyard Land through the Development of Community-Based Household Medicinal Plants (TOGA)

Ainul Chanafi[1*], Khoiriyah Trianti[2], Muhammad Azmi Maulana[3], Agus Desi Setiawan[4], Siti Maryam Tolohuly[5]
[1-5]Universitas Islam Malang, Malang, Indonesia
Email: [1)] ainul.chanafi@unisma.ac.id

Article Info

Article history:

Received: 02/10/2026
Revised : 11/10/2026
Accepted: 12/11/2026
Published online: 13/11/2026

Keywords:

Backyard Land, Community Empowerment, Family Health, Family Medicinal Plants, TOGA.

DOI:

10.55047/jscs.v6i2.1249

Corresponding author:

Ainul Chanafi
Email:
ainul.chanafi@unisma.ac.id

ABSTRACT

Backgrounds: The utilisation of backyards is one of the measures that communities can take to improve the productivity of their local environment whilst supporting family health. However, there are still backyards that are not being utilised to their full potential and are simply left empty or used for other, less productive purposes. One alternative for utilising such land is through the development of Family Medicinal Plants (TOGA).

Objectives: This community service initiative aims to optimise the use of backyards through the development of TOGA, as well as to enhance the community's knowledge and skills in growing and utilising medicinal plants.

Methodology: The methods employed in carrying out the activities include observing and identifying land potential, raising awareness of the benefits of TOGA, land preparation, planting practices, and guidance on plant maintenance. The activities were carried out with the direct involvement of the community, with the aim of increasing participation and a sense of ownership regarding the programme's sustainability.

Findings: The programme turned previously underused backyards into household medicinal plant gardens, using polybags, pots, and bamboo shelves built to take advantage of vertical space. Through awareness-raising and hands-on practice, residents learned the names and benefits of medicinal plants and gained skills in planting, watering, fertilising, and maintenance, and they were involved from preparation through to maintenance.

Conclusions: This programme also has the potential for sustainable development through plant care, the introduction of new TOGA species, and the utilisation of crop yields for simple herbal products.

How to cite: Chanafi, A., Trianti, K., Maulana, M. A., Setiawan, A. D., & Tolohuly, S. M. (2026). Optimising Backyard Land through the Development of Community-Based Household Medicinal Plants (TOGA). *Journal of Sustainable Community Service, 6*(2), 39–48. https://doi.org/10.55047/jscs.v6i2.1249

1. INTRODUCTION

Backyard land is one of the environmental resources available to households that can be utilised productively to support the family's needs whilst improving the quality of the environment. The use of backyards serves not only as open space but can also be developed into areas for growing plants that benefit the community. One such use is the cultivation of Family Medicinal Plants (TOGA), which are various types of plants that can be grown in the home environment and utilised as herbal remedies for the family's needs (Aprillia et al., 2024). Puspitasari et al. (2021) explained that TOGA can be used as an alternative form of self-medication for families. As well as offering practical benefits, the development of TOGA can also serve as an educational tool to improve public knowledge of the types, benefits and cultivation methods of medicinal plants (Raniawati et al., 2024).

TRANSPUBLIKA Precise. Resilience. Felicitous.
Copyright (c) 2026 Author(s)
This work is an open access under CC BY 4.0. license

A number of previous community service initiatives have promoted the use of household gardens through the cultivation and management of TOGA as part of community empowerment. Santoso et al. (2021) to examine the management of TOGA gardens as a form of community empowerment. Sembiring et al. (2024) emphasises a community-based approach to the use of household gardens through TOGA conservation. Furthermore, Cokropranoto et al. (2024) developing the TOGA movement as a means of empowering home gardens. Irwan et al. (2025) demonstrate the use of TOGA cultivation as part of optimising the use of garden plots, whilst Susanti et al. (2024) directing the cultivation of medicinal plants for household needs as a form of empowerment based on local environmental potential. These various activities demonstrate that the development of TOGA can integrate land use, skills development and community involvement (Trisnaningsih et al., 2019) also identifies the use of backyards for the cultivation of medicinal plants as a form of productive environmental management.



Figure 1. TOGA plants
Source: Author's documentation, 2026

Figure 1 shows one type of TOGA, a rhizome plant with potential for use as a traditional medicinal ingredient. The rhizome shown exhibits physical characteristics such as a branched shape and a yellowish-brown colour. The presence of this TOGA plant demonstrates the potential for utilising local plant resources as alternative natural ingredients to support public health (Bachri et al., 2026; Yani & Susilawati, 2023).

Although these various activities have promoted the development of TOGA as a means of utilising home gardens and empowering the community, their implementation must still take into account environmental conditions and the potential of the land available in each region. Optimising home gardens cannot be achieved through planting activities alone; it is necessary to involve the community in land preparation, cultivation processes and plant maintenance (Safitri et al., 2026; Salsabila et al., 2026). Such involvement is crucial so that the community not only gains practical experience but also develops the capacity to continue managing TOGA once the community service activities have concluded. Consequently, TOGA development initiatives must emphasise direct application and community participation in line with local environmental conditions.

Cowek Village is one of the villages in Purwodadi Sub-district, Pasuruan Regency, with an area of 10.09 km² and a population of 5,615 as of 2024. Administratively, Cowek Village comprises five hamlets, nine neighbourhood units (RW) and 28 neighbourhood groups (RT) (Pasuruan Regency Central Statistics Agency, 2024). This community service activity was specifically carried out in Krajan Hamlet, focusing on optimising the use of backyard land through the development of Family Medicinal Plants (TOGA). This activity was chosen to harness the potential of the household environment whilst providing the community with practical experience in cultivating and maintaining medicinal plants.

Based on these needs, the novelty of this community service initiative lies in the application of a participatory approach to optimise the use of backyards through the development of TOGA in Krajan Hamlet, Cowek Village. This initiative is not only oriented towards providing planting areas but also directly involves the community in the process of cultivating and maintaining medicinal plants. Consequently, this community service initiative aims to optimise the use of backyards through

the development of Family Medicinal Plants (TOGA) and to enhance the community's knowledge and skills in planting and maintaining medicinal plants. Through community involvement in all stages of the initiative, the development of TOGA is expected to encourage the productive and sustainable use of backyards, whilst delivering benefits to families and the surrounding environment.

2. LITERATURE REVIEW

2.1. Backyard Land as a Community Resource

Backyard land, or the home garden, is the land directly surrounding a house that households manage to meet their daily needs (Galhena et al., 2013). Calvet-Mir et al. (2012) show that home gardens provide benefits that go beyond food production, including environmental and social benefits for the households that manage them. In Indonesia, home gardens commonly combine food, ornamental and medicinal plants. A study of home gardens in the Menoreh karst area, Purworejo, recorded 55 medicinal plant species from 34 families, and about 90% of these species were deliberately planted by residents rather than growing wild (Igustita et al., 2023). These findings indicate that backyards are already a working source of plants for health, and that their value depends on how they are managed. Community service programmes have therefore used backyards for family medicinal plant gardens as a form of productive environmental management (Trisnaningsih et al., 2019).

2.2. Family Medicinal Plants (TOGA)

Family Medicinal Plants (TOGA) are plants cultivated around the home and used as herbal ingredients to meet family needs. Puspitasari et al. (2021) describe TOGA as an alternative for self-medication, so that their presence at home gives families direct access to simple herbal materials. Arbie (2022) links the use of backyards for TOGA with education and empowerment, which shows that TOGA programmes are usually delivered together with learning activities and not only as planting activities.

The species most often grown are rhizome plants of the ginger family *(Zingiberaceae).* In the Menoreh karst home gardens, Zingiberaceae was the dominant family, and ginger and turmeric were among the most commonly used plants (Igustita et al., 2023). Ginger has also been examined in an overview of systematic reviews on its health uses (Li et al., 2019). This is consistent with the species selected in the present programme, namely ginger, turmeric, kencur, temulawak, lemongrass and galangal, which are easy to grow and widely used in traditional practice. Medicinal plants still need to be used with care. TOGA belongs to traditional herbal use and does not replace medical diagnosis or treatment.

2.3. Community-Based Approach and Participation

The literature repeatedly treats TOGA development as community empowerment. Santoso et al. (2021) describe the management of a family medicinal plant garden as part of community empowerment. Sembiring et al. (2024) carried out backyard utilisation through TOGA conservation using community development elements, and Cokropranoto et al. (2024) developed the TOGA movement as home garden empowerment involving residents. Irwan et al. (2025) and Susanti et al. (2024) likewise place TOGA cultivation within community empowerment that uses the potential of the local environment.

The term participation needs careful use. Cornwall (2008) argues that participation carries different meanings and is practised at different levels, from residents merely attending an activity to residents taking part in decisions. For a TOGA programme, this means that involvement should extend beyond attendance, so that residents join in planning, planting and maintenance and gain a real sense of ownership over the garden.

2.4. Knowledge and Skills Development in TOGA Programmes

TOGA programmes generally combine education with practice. Raniawati et al. (2024) present backyard planting of medicinal plants as an educational activity that helps residents recognise plants around them. Probowati et al. (2022) delivered counselling to 30 village health cadres and gave them a pocketbook on family medicinal plants and plant seedlings, so that knowledge could be

put into practice at home. In Mallongi-Longi Village, awareness-raising, demonstration and mentoring were reported to increase participants' knowledge and skills (Irwan et al., 2025). Taken together, these studies show that knowledge, practical skills and mentoring support one another, and that a programme limited to distributing seedlings is unlikely to be sustained.

2.5. Sustainability and Economic Potential

Sustainability depends on residents continuing to care for the plants after the programme ends. Another direction is to turn harvests into simple products. In the Menoreh home gardens, some species were planted for personal use and for their economic potential (Igustita et al., 2023). For TOGA, such development needs to follow the community's capacity and applicable food safety and health regulations, and it can be built gradually through training in processing, packaging and marketing.

3. METHOD

The TOGA development activities are carried out using a community empowerment approach. The community is directly involved in the planning, implementation and maintenance of the plants. This approach was chosen so that the community gains first-hand experience and is able to continue the activities independently once the programme has ended. The implementation of the activities consists of the following stages:

3.1. Observation and Identification of Potential

The initial stage involved observing the environment to assess the condition of household plots with the potential to be used as TOGA (Family Medicinal Plants) planting sites. The observations covered soil conditions, water availability, sunlight exposure, and the types of plants already present.

The results of these observations were used as the basis for determining suitable planting locations and selecting plant species that matched the environmental conditions. In addition to identifying potential planting areas, this stage also involved assessing the availability of local resources that could support TOGA cultivation, particularly organic materials for fertilizer production.

One of the locally available resources identified was goat manure, which was collected from livestock pens for use as raw material in organic fertilizer production. The collection process involved gathering the manure directly from the pens and placing it in sacks for subsequent processing, as shown in Figure 2.



Figure 2. Collection of organic fertiliser from goat pen waste
Source: Author’s documentation, 2026

The identification of these local resources provided an initial basis for preparing organic fertilizer to support the subsequent TOGA cultivation activities. Thus, the observation stage covered

not only the assessment of suitable planting areas but also the identification of supporting materials available within the local environment.

3.2. Public Awareness Campaigns

The next stage involves raising public awareness regarding the concept of TOGA, the benefits of medicinal plants, the types of plants that can be cultivated, and simple methods for planting and caring for them.

These awareness campaigns aim to provide the community with basic knowledge so that the planting process not only results in the creation of a TOGA garden but also enhances public understanding of the use of medicinal plants.

3.3. Land Preparation

Preparation involves clearing the land of weeds, rubbish and any objects that may hinder plant growth. This is followed by soil preparation and site layout to ensure plants are spaced appropriately. If the garden area is limited in size, planting can be carried out using polybags, pots or reused containers that are still in good condition. Thus, limited land area does not pose an obstacle to the development of TOGA.

3.4. Planting Family Medicinal Plants

The plants selected are tailored to environmental conditions and community needs. Some plants that can be cultivated include ginger, turmeric, kencur, temulawak, lemongrass, galangal, betel leaves and other medicinal plants. Planting is carried out jointly with the community. It is hoped that these hands-on activities will equip the community with basic planting skills, ranging from seedling placement and spacing to watering.

3.5. Guidance and Maintenance

Once the planting process is complete, support is provided to ensure the plants grow well. Maintenance includes watering, weeding, fertilising, and monitoring for pests and plant diseases. The community is given responsibility for helping to look after and care for the plants so that the TOGA garden can be sustained in the long term. This support also serves as a means of identifying any challenges that arise during the cultivation process.

3.6. Evaluation

The evaluation of the activities was carried out through direct observation and discussions with the community during the implementation of the TOGA programme. The evaluation focused on the utilisation of home gardens, the layout of planting areas, the types of medicinal plants cultivated, the implementation of planting and maintenance practices, and community involvement in the activities. Observations were used to assess the condition of the planting areas and community involvement whilst the activities were taking place, whilst discussions were held to gauge the community's understanding of the types and benefits of medicinal plants for the household. The evaluation results were analysed descriptively based on the conditions and activities observed during the programme's implementation.

4. RESULTS AND DISCUSSION

4.1. Research Results

The outcomes of the TOGA programme include the utilisation of household plots, an introduction to the types and benefits of medicinal plants, cultivation practices, and community involvement in the development of planting areas. These outcomes are outlined based on the activities carried out and the conditions observed during the community service activities.

4.1.1. Utilisation of Backyard Land

The TOGA programme is implemented by utilising backyards that were previously not used to their full potential, transforming them into areas for growing medicinal plants for family use. The

area is organised by using bamboo as plant racks to arrange the plants in a more orderly manner. The use of bamboo racks is one way of utilising materials available in the local environment to support TOGA cultivation activities. Through this initiative, backyards can be utilised as planting areas that support the availability of medicinal plants in the communities where people live.



Figure 3. Using bamboo for plant shelves
Source: Author's documentation, 2026

The use of bamboo as a support structure for TOGA cultivation results in simple and functional plant arrangements. As shown in Figure 3, bamboo is used as a supporting structure to position plant containers in tiered and suspended arrangements. This arrangement allows for more optimal use of garden space, particularly by utilising the available vertical space. Furthermore, the use of bamboo as the primary material demonstrates the utilisation of local resources in providing facilities for the cultivation of medicinal plants for family use. It is hoped that these facilities will facilitate the arrangement and maintenance of TOGA plants whilst enhancing the tidiness of the garden environment.

4.1.2. Improving Community Knowledge

Outreach activities and hands-on practice provide the community with the opportunity to learn about various types of medicinal plants and their benefits. The community not only learns the names of the plants, but also gains an understanding of how to plant and care for them.

Increasing knowledge is a key aspect because the success of the TOGA programme depends not only on the availability of seedlings but also on the community's ability to care for and utilise them. A community service research project in Mallongi-Longi Village, for example, demonstrated an increase in participants' knowledge and skills following awareness-raising sessions, demonstrations and mentoring.

4.1.3. Improving Cultivation Skills

Through practical planting activities, the community gains first-hand experience in cultivating medicinal plants. The skills taught include preparing the growing medium, planting seedlings, watering, fertilising and maintenance.

It is hoped that these skills can be applied not only in the communal TOGA garden but also in participants' own home gardens. Consequently, the programme's impact can extend further once the main activities have concluded.

4.1.4. Benefits of TOGA for Families

The development of TOGA can serve as an alternative means of providing plants that can be utilised to meet families' herbal needs. Plants such as ginger, turmeric, kencur, temulawak and lemongrass are generally easy to grow and have a wide range of traditional uses.

However, medicinal plants must be used wisely. TOGA can be used as part of the traditional utilisation of herbal plants, but is not intended to replace medical diagnosis or treatment when people experience health conditions requiring healthcare professionals.

4.1.5. Community Empowerment

An important aspect of this programme is community involvement. The community is involved from the preparation stage right through to the maintenance of the plants, ensuring that activities do not stop at the planting stage alone.

This empowerment model can foster a sense of ownership of the programme amongst the community. Community-based TOGA programmes also have the potential to become collaborative activities that strengthen cooperation amongst residents. The community development approach within the TOGA programme has been utilised in various community service initiatives with the aim of transforming backyards into productive plots whilst supporting community self-reliance.

4.1.6. Potential for Economic Development

In addition to providing health and environmental benefits, TOGA plants have the potential to be developed into products of economic value. The produce can be processed into simple herbal products in line with the community's capabilities and applicable food safety and health regulations.

The development of these products can be carried out gradually through training in processing, packaging, marketing and basic financial record-keeping. Thus, the TOGA programme is not only aimed at meeting family needs but also has the potential to become a productive economic activity. Previous research has also shown that TOGA cultivation yields can be channelled towards product diversification and the development of community-based enterprises.

4.2. Discussion

4.2.1. Backyard Land as Productive Space

The programme shows that backyard land that was previously left empty or used for low-value purposes can be developed into a medicinal plant garden. This agrees with studies that treat the home garden as a productive environmental resource (Calvet-Mir et al., 2012; Trisnaningsih et al., 2019). The stage of observing soil, water, light and existing plants was important because the location and plant species were chosen according to site conditions. Land preparation addressed the challenge of limited backyard space through the use of polybags, pots, and reused containers, allowing residents to establish medicinal plant gardens without requiring large areas of land. The programme also prioritised locally available and low-cost materials, including organic fertiliser made from goat pen manure and bamboo for plant shelves. These approaches provided practical alternatives for managing space and reducing cultivation costs, making the development and maintenance of household medicinal plant gardens more accessible to residents. The use of organic fertiliser from goat pen waste and bamboo for plant shelves shows that local materials were used to keep costs low, which supports the long-term feasibility of the garden. In addition, increasing green space around houses is an environmental benefit consistent with the wider benefits of home gardens described by Calvet-Mir et al. (2012).

4.2.2. Improving Knowledge and Cultivation Skills

The combination of awareness-raising and hands-on practice allowed residents to learn plant names and benefits as well as how to plant and maintain them. This matches the approach of Probowati et al. (2022), who combined counselling with a pocketbook and seedlings, and the findings of Irwan et al. (2025) that demonstration and mentoring raised knowledge and skills. Raniawati et al. (2024) likewise treat TOGA planting as education. The skills practised here, namely preparing the growing medium, planting seedlings, watering, fertilising and maintenance, can be repeated in participants' own home gardens, so the programme's effect can extend beyond the communal garden. Knowledge acquired through practice is also likely to last longer than knowledge from a single talk, because residents see the plants grow and handle the care themselves.

4.2.3. Community Participation and Sense of Ownership

Residents were involved from the preparation stage through to maintenance, and they were given responsibility for caring for the plants. This follows the community empowerment framing in earlier work (Santoso et al., 2021; Sembiring et al., 2024; Susanti et al., 2024). In line with Cornwall (2008), involvement in this programme went beyond attendance, because residents took part in planting and maintenance, which is where ownership is most likely to form. The guidance stage also served as a way to identify problems during cultivation, so the programme could respond to residents' actual difficulties. Ownership is important because the programme depends on residents continuing the work once the community service team has left.

4.2.4. Family Benefits and Responsible Use

Ginger, turmeric, kencur, temulawak and lemongrass are easy to grow and have many traditional uses. Their prominence is consistent with the dominance of Zingiberaceae in home gardens elsewhere in Indonesia (Igustita et al., 2023) and with research interest in ginger as a health plant (Li et al., 2019). TOGA can support self-medication for minor needs (Puspitasari et al., 2021), but the programme made clear that plants must be used wisely and do not replace medical diagnosis or treatment. For this reason, education on appropriate use should remain part of any follow-up, together with advice to consult healthcare professionals when health conditions require it.

4.2.5. Economic Potential and Sustainability

Harvests have the potential to become simple herbal products, in line with the pattern in which home garden species are grown for both household use and economic potential (Igustita et al., 2023). Development should be gradual and should include training in processing, packaging, marketing and basic financial record-keeping, while complying with food safety and health regulations. Sustainability can be supported through regular maintenance, introduction of new species, education on appropriate use, and processing of yields into products with added value.

5. CONCLUSION

The programme to optimise the use of household plots through the community-based development of Family Medicinal Plants (TOGA) is a form of empowerment that can benefit the environment, family health and the wider community. Land that was previously unproductive can be developed into an area for growing useful medicinal plants.

Activities involving the stages of observation, awareness-raising, land preparation, planting, mentoring and evaluation provide the community with first-hand experience of medicinal plant cultivation. Community involvement at every stage is also a key factor in supporting the programme’s sustainability.

The programme’s sustainability can be achieved through the regular maintenance of TOGA gardens, the introduction of new plant species, education on the appropriate use of plants, and the development of plant yields into herbal products with added value. Thus, it is hoped that the development of TOGA will not merely be a temporary activity, but will evolve into a community practice of utilising backyard resources productively and sustainably.

Conflict of Interest Statement

The authors declare that there is no conflict of interest regarding the publication of this paper.

Author Contributions

A.C.: Conceptualization, Methodology, Supervision, Project Administration, Writing – Original Draft, Writing – Review & Editing.
K.T.: Investigation, Data Curation, Writing – Original Draft.
M.A.M.: Investigation, Resources, Visualization.
A.D.S.: Investigation, Formal Analysis, Validation.
S.M.T.: Investigation, Resources, Writing – Review & Editing.

Funding Statement

No funding was received for this research.

Informed Consent

Verbal informed consent was obtained from all community members who participated in the activities. Participants were informed of the programme's purpose and agreed to take part and to the use of photographs from the activities.

Ethical Approval

This community service programme involved educational and gardening activities only, with no clinical, experimental or invasive procedures. It was carried out with the permission of the village authorities of Cowek Village. Formal ethical approval was therefore not required.

Data Availability

The data that support the findings of this study are available from the corresponding author **[A.C.]** upon reasonable request.

Declaration of Generative AI and AI-assisted Technologies

During the preparation of this manuscript, the authors utilized Claude (Claude Sonnet 5.5, Anthropic) for proofreading, specifically to check grammar, spelling, and clarity of expression. All outputs generated by the AI tool underwent rigorous critical review and thorough editing by the authors to ensure factual accuracy, enhance clarity of expression, and confirm adherence to established academic standards. The authors assume full responsibility for the integrity and content of this manuscript.

6. REFERENCES

Aprillia, E., Hendrawan, W., & Abistya, R. R. (2024). Simba Kuat: Implementation of an Environmental Cadre Program from School to Village Level in Keluang Village, Tunkal Ilir, South Sumatra. *International Journal of Social Science and Community Service*, *2*(4), 223–228. https://doi.org/10.70865/ijsscs.v2i4.45

Arbie, S. (2022). Edukasi Dan Pemberdayaan Pekarangan Rumah Untuk Tanaman Obat Keluarga Bagi Masyarakat Desa Tolutu, Kecamatan Tomini, Kabupaten Bolaang Mongondow Selatan. *Journal of Hulonthalo Service Society (JHSS)*, *1*(1), 52–59. https://doi.org/10.47918/jhss.v1i1.1164

Bachri, S., Pannyiwi, R., & Surya, S. (2026). Utilization of Family Medicinal Plants (TOGA) in Health Improvement Efforts. *International Journal of Health Sciences*, *4*(1), 246–252. https://doi.org/10.59585/ijhs.v4i1.1151

Calvet-Mir, L., Gómez-Baggethun, E., & Reyes-García, V. (2012). Beyond food production: Ecosystem services provided by home gardens. A case study in Vall Fosca, Catalan Pyrenees, Northeastern Spain. *Ecological Economics*, *74*, 153–160. https://doi.org/10.1016/j.ecolecon.2011.12.011

Cokropranoto, S. F., Nisa, F. M., Mauludina, I., Apriliasari, F., Nurokhmah, N., Anggraeni, I., Zahrani, S., Alezafi, A. M., Faiq, D. L., & Faridah, U. (2024). Gerakan penanaman tanaman obat keluarga (TOGA) sebagai upaya kemandirian kesehatan masyarakat. *Jurnal Abdimas Indonesia*, *6*(2), 156–161. https://doi.org/10.26751/jai.v6i2.2788

Cornwall, A. (2008). Unpacking "Participation": models, meanings and practices. *Community Development Journal*, *43*(3), 269–283. https://doi.org/10.1093/cdj/bsn010

Galhena, D. H., Freed, R., & Maredia, K. M. (2013). Home gardens: a promising approach to enhance household food security and wellbeing. *Agriculture & Food Security*, *2*(1). https://doi.org/10.1186/2048-7010-2-8

Igustita, I., Fatikha, L. A., Astikasari, L., Kusuma, D., Nugraheni, R. S., Muryanto, B. S., Anshory, D. A., Hidayat, S., Sujarta, P., Yasa, A., Naim, D. M., & Setyawan, A. D. (2023). Ethnobotany of medicinal plants in homegarden of Menoreh Karst Area, Purworejo District, Indonesia. *Asian Journal of Ethnobiology*, *6*(2), 171–181. https://doi.org/10.13057/asianjethnobiol/y060208

Irwan, I., Haris, H., Ramadhan, N. R., Rifaldi, R., Nurviana, S., & Asia, N. (2025). Pemberdayaan Masyarakat Melalui Budidaya TOGA Sebagai Upaya Pemanfaatan Lahan Pekarangan Desa Mallongi-Longi. *SMART: Jurnal Pengabdian Kepada Masyarakat*, *5*(2), 145–156. https://doi.org/10.35580/smart.v5i2.77022

Li, H., Liu, Y., Luo, D., Ma, Y., Zhang, J., Li, M., Yao, L., Shi, X., Liu, X., & Yang, K. (2019). Ginger for health care: An overview of systematic reviews. *Complementary Therapies in Medicine*, *45*, 114–123. https://doi.org/10.1016/j.ctim.2019.06.002

Probowati, W., Torizal, F. G., & Sunartiyah, S. (2022). Tangguh Hadapi Covid-19 dengan Budidaya Tanaman Obat Keluarga di Desa Margomulyo, Seyegan, Sleman. *PengabdianMu: Jurnal Ilmiah Pengabdian Kepada Masyarakat*, *7*(Special-1), 245–251. https://doi.org/10.33084/pengabdianmu.v7ispecial-1.2692

Puspitasari, I., Sari, G. N. F., & Indrayati, A. (2021). Pemanfaatan Tanaman Obat Keluarga (TOGA) sebagai Alternatif Pengobatan Mandiri. *Warta LPM*, *24*(3), 456–465. https://doi.org/10.23917/warta.v24i3.11111

Raniawati, R. A. N., Dwinita, D. A., Suwadi, F. F., Arifin, M. A. H., Anggraeni, M., Nurcahyanti, L. M., Ananda, A. T., Winarko, J. B., Nafian, I., Utami, S., Fauziana, E., Kusumaningrum, T. A. I., & Wijayanti, A. C. (2024). Pemanfaatan Pekarangan Rumah Melalui Kegiatan Menanam Tanaman Obat Keluarga di Dusun 4 Tegalsari Weru Sukoharjo. *Warta LPM*, *27*(1), 90–101. https://doi.org/10.23917/warta.v27i1.2757

Safitri, Y. A., Anshari, R., Safwadi, I., Iqbal, & Junita, L. (2026). Household Economic Strategies through Home Garden Optimization and Food Security Preparedness. *Jurnal Rekayasa Lingkungan Dan Keberlanjutan*, *1*(2), 187–197. https://doi.org/10.68728/jrlk.v1i2.18

Salsabila, N., Satria, R. W., & Febrianto, Z. R. (2026). Pemanfaatan Lahan Kosong Desa Berbasis Pangan dan Tanaman Obat Dalam Mendukung Ketahanan Pangan. *Jurnal Pengabdian Kepada Masyarakat Patikala*, *6*(1), 4773–4780. https://doi.org/10.51574/patikala.v6i1.5843

Santoso, S. B., Lutfiyati, H., & Kusuma, T. M. (2021). Pemberdayaan Potensi Masyarakat Melalui Pengelolaan Kebun Tanaman Obat Keluarga. *Community Empowerment*, *6*(3), 391–397. https://doi.org/10.31603/ce.4044

Sembiring, N. A., Islamiyati, D. D., Raksanagara, F. N., Amaliawati, S., Grahita, S., Sipahutar, A. R. N., & Indriana, H. (2024). Ubaran: Pemanfaatan Pekarangan Rumah Melalui Konservasi Tanaman Obat Keluarga (TOGA) Berbasis Elemen Pengembangan Masyarakat. *Parta: Jurnal Pengabdian Kepada Masyarakat*, *5*(1), 59–71. https://doi.org/10.38043/parta.v5i1.5012

Susanti, L. D., Azzahra, N. S., Ansania, A., Tia Larasati, E., Triliyani, I., Khoiriyah, M., Asih, M., Kurniawati, M., Yusuf, M. F. B., Hikmah, S., & Ilmi, U. (2024). Budidaya Tanaman Obat Keluarga sebagai Upaya Pemberdayaan Masyarakat di Desa Tanggulangin. *DEDIKASI: Jurnal Pengabdian Masyarakat*, *6*(2), 145–160. https://doi.org/10.32332/9y0xk656

Trisnaningsih, U., Wahyuni, S., & Nur, S. (2019). Pemanfaatan Lahan Pekarangan Dengan Tanaman Obat Keluarga. *JPPM (Jurnal Pengabdian Dan Pemberdayaan Masyarakat)*, *3*(2), 259. https://doi.org/10.30595/jppm.v3i2.4554

Yani, F. A., & Susilawati, S. (2023). Kearifan Lokal Dalam Pemberdayaan Dan Pemanfaatan Tanaman Obat Keluarga (Toga) Untuk Meningkatkan Kesehatan Masyarakat (Studi Literatur). *Jurnal Medika Nusantara*, *1*(2), 169–179. https://doi.org/10.59680/medika.v1i2.302