Jurnal Ilmu Pertanian Indonesia (JIPI), April 2025
(Indonesian Journal of Agricultural Sciences)
ISSN 0853-4217 EISSN 2443-3462

Vol. 30 (2): 277–285
http://journal.ipb.ac.id/index.php/JIPI
DOI: 10.18343/jipi.30.2.277

House Yard as a Productive Landscape during the Covid-19 Pandemic in Metro Municipality, Lampung Province

Aisyah Nur Fadila, Hadi Susilo Arifin, Nurhayati*, Aris Munandar

(Received October 2023/Accepted January 2025)

ABSTRACT

This house yard (*pekarangan*) research was conducted at three sites of the Way Seputih-Sekampung watershed, which are represented by the upstream (Mulyosari Village), middle (Margodadi Village), and downstream (Tejosari Village), Metro Municipality, Lampung Province from May to July 2022. The objective of this research is to analyze the yard as a productive landscape by analyzing: 1) plant composition, 2) the diversity of plant species, and 3) utilization of the yard. Surveys and questionnaires were used. The number of yards was determined by purposive sampling, totaling 30 yards belonging to members of the Women Farmers' Group (KWT) at each location. The results showed that horizontal diversity includes ornamental, fruit, vegetable, medicinal, and starch-producing plants. Sixteen types of plants were frequently found in 46% of yards. It was found that the Shannon-Wiener species diversity decreased from upstream to downstream, that is, upstream (2.41), middle (2.33), and downstream (1.82). Although the diversity of plant species is moderate on average, communities use their yards according to their function. The community was aware of the benefits of the yard, particularly its contribution to environmental sustainability, as indicated by the assessment index for the upstream (87%), midstream (93%), and downstream (94%) sites. Thus, the yard is very useful for the community as a place for interaction during the Covid-19 pandemic. Such benefits are said to be better if landscape management is carried out in a planned and environmentally friendly manner.

Keywords: community, home garden utilization, landscape management, pandemic, species diversity

INTRODUCTION

The yard or land around the house can be used optimally to support the welfare of the community and as a provider of additional food for the family. Azizah *et al.* (2022) stated that yard use has social, economic, and environmental effects. On the economic side, the use of yards can reduce household expenses by between IDR5,000 and IDR15,000 per day. Meanwhile, on the social side, it is possible to build social interactions between households to support each other in the use of the yard. On the environmental side, good use of the yard can provide homeowners with a sense of comfort and tranquility. Yards have a dynamic concept, apart from being an ecosystem function, but also have social and cultural functions that play an important role in the development of productive landscapes (Arifin *et al.* 2012).

The yard became a safe place during the Covid-19 pandemic due to mobility restrictions. The restriction of human movement caused by the pandemic is a step toward preventing an increase in the chain of transmission. This was strengthened by the implementation of Community Activities Restrictions Enforcement (CARE) in mid-2021 by the Metro City Government when Covid-19 cases increased. In 2022, the Metro City Health Office reported 2,932 cases, 2,747 recoveries, and 184 deaths. This number is a concern for the public to remain vigilant against the possibility of spreading viral mutations, even though it has entered the phase of adaptation to new habits (*New Normal*). This restriction on outdoor activities makes people interested in new hobbies, namely gardening. This is in line with Baharudin *et al.* (2021), who found that gardening is an alternative approach for mental health-related prevention and healing. Gardening will provide a sense of peace for those affected by *Covid-19*. Gardening activities in this yard can be a starting point for people to care for their yards. According to Siregar and Wahyuni (2018), a yard can make residents feel at home if properly managed. Therefore, an analysis of plant composition, diversity of plant species, and the use of yards was carried out to support community resilience during the Covid-19 pandemic in Metro City.

METHODS

The research site in Metro City was in the Watershed area of Way Seputih-Sekampung, including upstream (Mulyosari Village, West Metro District), middle (Margodadi Village, South Metro District), and

Department of Landscape Architecture, Faculty of Agriculture, IPB University, IPB Campus Darmaga, Bogor 16680, Indonesia
* Corresponding Author: E-mail: nurhayati@apps.ipb.ac.id

downstream (Tejosari Village, East Metro District) locations (Figure 1). The research was carried out in May-July 2022.

Yard samples were determined by purposive sampling of members of the Women Farmers Group (KWT) who were in three respective research locations and simultaneously became respondents in this study. The research material consisted of a base map, survey sheet, and questionnaires. The equipment included mobile phone cameras, stationery, meters, *Microsoft Office Word*, *Microsoft Office Excel,* and *IBM SPSS Statistics 25*.

The analysis of plant composition is in the form of horizontal diversity aspects grouped into 8 plant functions. Plant data were collected through a field survey (Table 1). The analytical approach was determined based on Arifin (1998). Plant species diversity was analyzed by calculating the Shannon-Wiener index (Odum 1993). The criteria for plant diversity (H') include H'<1 (low), 1<H'<3 (medium), and H'>3 (high):

$$H' = -\Sigma \text{ Pi ln } P_i$$
$$P_i = N_i/N_{total}$$

where:
H' = Shannon-Wiener diversity index
P_i = Number of individuals of a species
N_i = Number of individuals of the *i*th species
N_{total} = Total number of individuals

An analysis of yard utilization was conducted by answering a perception questionnaire about the yard. Factors that can affect perception were analyzed using the Spearman test. The test was used to determine the correlation between the characteristics of KWT members and their perceptions of the yard. The correlation size was between −1 and 1, positive and negative. The following is a list of correlation coefficients (Sarwono 2006):
<0.20 = considered non-existent
0.21–0.40 = exist but low
0.41–0.60 = moderate
0.61–0.80 = high
0.81–1.00 = very high

The method for calculating the results of the questionnaire uses the Likert scale, which is a score of 1 (strongly disagree), 2 (disagree), 3 (hesitate), 4 (agree), and 5 (strongly agree). The Likert-scale score obtained from the questionnaire was then recalculated to obtain a new assessment index (degree of importance). The following is the assessment index according to Sugiyono (2013):
0,00–0,20 = Strongly disagree
0,21–0,40 = Disagree
0,41–0,60 = Hesitate

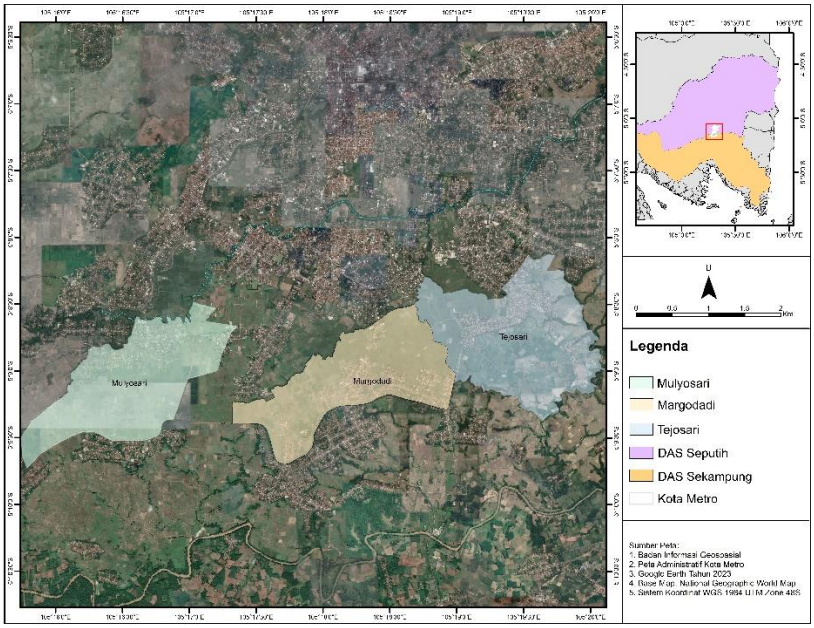

Figure 1 Research location in Metro Municipality, Lampung Province.

Table 1 Characteristics of yards (Arifin1998)

Aspects	Standard		Method
Horizontal diversity (plant function)	- Ornamental - Fruits - Vegetables - Spices - Medicines	- Starch-producing - Industrial raw materials - Others	Survey

0,60–0,80 = Agree
0,81–1,00 = Strongly agree
The formula used is as follows:

$$\text{Index} = \frac{(1)(r) + \ldots\ldots + (5)(r)}{(\Sigma\, r)(5)}$$

where:
r = Number of respondents who chose Likert score
Σr = Total number of respondents

RESULTS AND DISCUSSION

General Conditions

Metro cities are located between 5°6"–5°8" S and 105°17"–105°19" E. The area of Metro City is 73.16 km^2 with a land area of 68.74 km^2. The city of Mentro consists of five sub-districts and 22 sub-districts. The areas of the villages at the research location were Mulyosari 2.99 km^2, Margodadi 2.87 km^2, and Tejosari 3.46 km^2. The distance from each village to the city center was 5 km. The average air temperature was 28.2 °C with an area height of 52.5 m above sea level and a slope of 0–5% and 6–15% in the North and South, respectively. The air humidity ranges from 80 to 88% with an average rainfall of 1,912.07 mm/year, and 179 rainy days in 2021 (BPS 2022).

Land use patterns in Metro City were grouped into 2 types, namely built and unbuilt land. The yards in Metro City occupy 27.76% of the total unbuilt land area. The undeveloped area in the city consists of rice fields with technical irrigation (2,982.15 ha) and dry land yards (1,198.68 ha). The soil is an Ultisol that can be overgrown by almost all types of plants; however, climatic constraints must be considered. The natural fertility of ultisol soils was found on thin horizon A with low organic matter content (Prasetyo and Suriadikarta 2006).

The ecological conditions of Metro City are still dominated by natural structures with organic settlements (Table 2). In addition, undeveloped areas, such as yards, were included in the ideal category to achieve ecological adequacy (critical minimum size of yards) (Arifin 1998), which could be seen from the average yard area of KWT members, which reaches more than 100 m^2. The average yard area of the upstream (458.13 m^2), the middle (593.80 m^2), and the downstream location (311.63 m^2).

The Covid-19 pandemic has made people aware of the importance of healthy food supply, food independence, and sustainability. The yard area owned by KWT members can be used for productive land development, one of which is to support the availability of additional food in accordance with the purpose of establishing KWT. The agency that oversees the existence of KWT is the Metro City Food Security, Agriculture, and Fisheries Service (DKP3). KWT counseling activities can be beneficial for members and have the potential to become a forum for socialization with the surrounding community (Qisthina 2023).

Composition of Yard Plants

Horizontal diversity is a function of the plants in the yard. Plant functions are divided into ornamental, fruit, vegetable, spices, medicine, starch producers, industrial raw materials, and other functional plants (Arifin 1998). In this discussion, it is explained that the functions of plants in 46% of KWT member yards include ornamental, fruit, vegetable, medicinal, and starch-producing plants (Table 3). Yard plants can provide benefits for KWT members in terms of physical and psychological health, food security, and environmental recovery.

a. Ornamental Plants

Ornamental plants can function socially and aesthetically, as an example of the popularity of ornamental plants during the Covid-19 pandemic, which stimulated KWT members to interact with plants because it can reduce boredom during the pandemic. Planting ornamental plants and gardening is one of the plant therapies considered to reduce stress levels so that the heart feels more positive (Efendi and Purbasari

Table 2 Yard documentation at three research locations

Location	Front	Right	Left	Back
Upstream				
Middle				
Downstream				

Table 3 Frequency of plant types and functions widely encountered in Metro City yards

Plant types		Plant function	%			
Local name	Scientific names		Hulu	Tengah	Hilir	Rata-rata
Aglonema	*Aglaonema commutatum* Schott	Ornamental	77	80	63	73
Pepaya	*Carica papaya* L.	Fruit	77	73	67	72
Pisang	*Musa paradisiaca* L.	Fruit	80	73	53	69
Lidah mertua	*Sansevieria trifasciata* Prain	Ornamental	77	60	47	61
Daun bahagia	*Dieffenbachia seguine* (Jacq.) Schott	Ornamental	77	60	47	61
Alpukat	*Persea americana* Mill.	Fruit	63	67	47	59
Cabai rawit	*Capsicum frutescens* L.	Vegetable	53	57	57	56
Singkong	*Manihot esculenta* Crantz	Starch-producing	47	53	53	51
Kamboja jepang	*Adenium obesum* (Forssk.) Roem. & Schult.	Ornamental	40	63	47	50
Daun bawang	*Allium fistulosum* L.	Vegetable	80	53	17	50
Kelapa	*Cocos nucifera* L.	Fruit	60	43	40	48
Nangka	*Artocarpus heterophyllus* Lam.	Fruit	53	47	43	48
Kunyit	*Curcuma domestica* Val.	Medicine	50	53	40	48
Lidah buaya	*Aloe vera* (L.) Burm.f.	Ornamental	50	57	30	46
Mangga	*Mangifera indica* L.	Fruit	53	43	40	46
Jahe emprit	*Zingiber officinale* Rosc. *var. amarum*	Medicine	67	40	30	46

2021). Gardening trends also have a positive impact on biodiversity conservation, oxygen production, and the economy (Setyawan 2022).

Aglaonema (Aglaonema commutatum Schott) is an ornamental plant whose demand is greatly influenced by this trend. This tendency is mostly produced by ornamental plant business actors (Wiraatmaja 2016). As a result of increasing market demand, insufficient availability of plants by traders, and promising prices, the community took the initiative to propagate aglaonema independently in the yard (Haryanto *et al.* 2022). The same thing happened in Metro City, where the Aglaonema plant is in great demand because it has beautifully patterned leaves and is worth selling.

In addition, from an ecological point of view, ornamental plants can improve air quality. Improving air quality is sought to reduce pollutants by presenting the mother-in-law tongue plant (*Sansevieria trifasciata* Prain). The peculiarities of this plant include being highly resistant and being able to absorb 107 types of pollutants in heavy traffic areas and in rooms full of cigarette smoke (Tahir and Sitanggang, 2008). The plant also contains antioxidants (Philip *et al.* 2011) and active ingredients, such as lead metal biosorbents sourced from motor vehicles (Yunisa *et al.* 2017). The potential of in-law tongues planted by KWT members in Metro City is expected to be able to absorb pollutants around the residential environment, as in the research of Faznur *et al.* (2020), where the positive change from the cultivation of the plant has been felt by the people of Kampung Bulak Cinangka, Depok.

Another ornamental plant that can be used as a bi-pesticide for pest control on vegetable plants in the yard is the happy leaf (*Dieffenbachia seguine* (Jacq.) Schott). According to Wardani *et al.* (2022), the sap of happy leaves contains calcium oxalate, which has toxic properties. Biopesticides from the sap of leaves can eradicate aphids that attack horticultural crops. The use of organic pesticides from sap stems provides an alternative for KWT members to meet the pesticide needs of plants in their yards. Organic pest control for vegetable crops is necessary so that they are safe to consume and do not have a negative impact on the body because they leave harmful chemical residues.

Ornamental plants, such as *kamboja jepang* (*Adenium obesum* (Forssk.) Loose. & Schult.) and aloe vera (*Aloe vera* (L.) Burm.f.) It also possesses traditional medicinal properties. The ethanol extract of kamboja has the potential to act as a natural antioxidant to counteract the effects of disease-causing free radicals (Shofi *et al.* 2020). Natural compounds that have antibacterial activity are present in the bark of plant stems (Mursito and Prihmantoro 2011), so they can be used to treat wounds.

Aloe *vera* is an ornamental plant that can be processed into food and drinks. However, KWT members do not use this in their processed form. Processed aloe vera products are low-calorie fibrous foods. Foods made from aloe vera by adding various types of sugar have a good nutritional content for health (Asngad 2008). People have only used aloe vera for hair care because it can be directly applied during shampooing. Public knowledge can be increased by making anti-dandruff gel masks and improving family welfare through agribusiness and aloe cultivation (Ambarwati, 2020).

b. Fruit plants

Consumption of fruit plants can be beneficial for maintaining a healthy body. Fruit plants can be obtained from yards such as papaya (*Carica papaya* L.), bananas (*Musa paradisiaca* L.), avocados (*Persea americana* Mill.), coconuts (*Cocos nucifera* L.), jackfruit (*Artocarpus heterophyllus* Lam.), and mangoes (*Mangifera indica* L.).

Papaya is classified as a non-seasonal plant that can bear fruit at any time. This plant can grow well in the yard because it has a growing environment that is suitable for temperatures ranging from 25 to 30 °C and rainfall of 1,000–2,000 mm/year. People like papaya fruits that are ripe and raw to be cooked, as well as flowers and leaves that are used as vegetables. Papaya is rich in benefits, in addition to its sweet and fresh fruit taste when ripe; papaya leaves, stems, and seeds can be used as medicinal ingredients (Sujiprihatin and Suketi 2009). Bananas are widely planted in the yards of KWT members. This is because in Indonesia, the banana plant is the main element in the food and economic sector (Hapsari *et al.* 2017). Bananas are consumed by the community as table fruits or processed foods, such as chips. Banana chips are a typical food in Lampung Province. Fruit bananas that are consumed fresh are generally due to the sweet taste and fragrant aroma of muli bananas, which are typical of Lampung plants and are synonymous with the etymology of Lampung, namely *Muli* (unmarried girl).

Avocado is efficacious as an antioxidant, antidiabetic, and hyperlipidemic agent and contains nutrients that can meet the daily needs of the body (Hartati *et al.* 2022). During the Covid-19 pandemic, body immunity needs to be considered, especially for KWT members with comorbidities such as diabetes mellitus, heart disease, hypertension, chronic lung disease, old age, and obesity. Boosting the body's immunity by drinking young coconut water is beneficial for health. Young coconut water can prevent anemia, lower blood pressure, heart disease, and oxidative stress in *Covid-19 patients*. Coconut water also contains vitamin C, an antioxidant (Zulaikhah and Wibowo 2022).

Jackfruits are inexpensive and easy to obtain at research sites. Jackfruit has long been used by the community as a food ingredient with a fragrant and sweet aroma, as well as a traditional remedy for diarrhea by consuming young jackfruit of the size of an adult's thumb or finger. The use of jackfruit as a traditional medicine is related to its bioactivity, namely as an antimicrob, anti-inflammatory, antioxidant, antidiabetic, antimelanogenic, and anticancer (Silalahi 2021). Mango is a fruit plant with many benefits, starting from the roots, bark, leaves, fruits, and seeds. Fruit is a source of vitamins for immediate consumption (Parvez 2016). Several studies have shown that there are many chemical compounds from mango leaves that can be used as antioxidants and immunity enhancers (Jutiviboonsuk and Sardsaengjun 2010). The way mango leaves can be consumed by KWT members is to dry them into herbal brews or herbal medicine.

c. Vegetable crops

Vegetable plants in the yards of KWT members include cayenne peppers (*Capsicum frutescens* L.) and chives (*Allium fistulosum* L.). Cayenne peppers are easy to grow, even though they are only spread with chili peppers that have rotted from the kitchen. Some also originated from hybrid seeds grown in polybags. Cayenne peppers harvested in the yard can be used for additional seasoning. The bioactive compounds contained in it have the potential to act as antioxidants. Owing to the high content of capsaicinoids, phenols, flavonoids, and vitamin C (Kusnadi *et al.* 2019). Chives are favored by KWT members because, in addition to being used as complementary ingredients in cooking, they have economic value. The selling price of chives was IDR 15,000.00/bag, which makes them interested in planting leeks during Covid-19. According to Hsu *et al.* (2020), chive has long been used for the treatment of various diseases. The efficacy of chive in the treatment of disease epidemics has been documented in ancient Chinese medical books. Based on this experience, several Covid-19 patients who were infected in the early and mild stages managed to recover by consuming chives porridge twice a day.

d. Medicinal plants

Efforts to control and prevent Covid-19 are needed in the face of the pandemic. The resilience of KWT members must be improved through the improvement of individual health. There are many ways to maintain and increase immunity, especially by implementing healthy lifestyle habits, such as maintaining hygiene, nutritious food, consuming supplements, and traditional or herbal remedies (Widaryanti *et al.* 2021). Traditional medicines, such as rhizomes (*embon-empons*), can increase immunity for the elderly and people who are active outside the home. Rhizome remedies are prepared from spices such as ginger *emprit* (*Zingiber officinale* Rosc. var. amarum), and turmeric (*Curcuma domestica* var.). Ginger has been proven to have an antiviral effect that is able to inhibit the growth of human respiratory syncytial virus (HRSV). Turmeric contains curcumin, which relieves sciatica and pain (Perdani and Hasibuan 2021). The use of turmeric extract also improves the healing of gastric ulcers by stabilizing the pH of stomach acids (Althala 2021).

e. Starch-producing plants

Cassava (*Manihot esculenta* Crantz) is planted in the yard as a starch-producing crop or as an alternative source of carbohydrates to replace rice. KWT members process cassava tubers into a variety of foods, such as *gaplek*, *getuk*, chips, fried foods, boiled foods, and other processed foods. Processing cassava tubers with the main raw material of cassava tubers can create a more modern food, namely cheese cassava balls. In addition to tubers, young cassava leaves can be consumed because they contain protein, fat, carbohydrates, and vitamins A and B1; however, they must be boiled and wilted to reduce the toxic levels of hydrocyanic acid (HCN). Cassava leaves that have been wilted in the sun are also commonly used as animal feed by the community. In addition, the stem

part of cassava can be reused as a seedling and the base of the stem for firewood (Muntoha *et al.* 2015).

Diversity of Plant Types

The plant species diversity index (H') is indicated by the number of plant species and individuals found in 90 house yards (Table 4). The average H' values in the upstream, central, and downstream locations were 2.41, 2.33, and 1.82, respectively. The highest diversity is in the upstream location, whereas the lowest is in the downstream location because the number of plant types is the least among other locations. The average H' of the three locations is 2.19 or the medium category.

The diversity of plant types obtained is in line with the research of Irwan *et al.* (2018) that yard ecosystems with moderate indices require yard planning with the addition of types and numbers of plants, as well as planting arrangements, so that the quality of the ecosystem is maintained in a sustainable manner. The addition of plants, both in number and type, can be done at all sizes of yards, because the yard area does not have a real effect on the diversity of yard plants (Ali *et al.* 2022). Plants that can be planted in limited yards, such as ornamental, fruit, vegetables, spices, and medicinal or annual plants, are still available on the land.

Yard Utilization

Characteristics of KWT members

KWT members in Metro City have different backgrounds based on education level, family income, type of job, and age (Figure 2). The education level of KWT members in the upstream location is dominated by housewives (50%), with education levels that are only elementary school graduates or even not in school (40%). Family income ranged from 0 to IDR1 million (57%), and the age range was 56 to 65 years (33%).

KWT members in the central location were also dominated by housewives (57%), such as upstream members. The education level of members was high school graduates (30%) and aged 46–55 years. Family income ranged from 0 to IDR 1 million (60%). KWT members in downstream locations were the same as those in the previous two locations, namely as housewives (60%). The income was also 0–IDR 1 million (57%), with a dominance of 56–65 years. Many of them do not go to school or only receive education up to the elementary level (43%) due to financial limitations, so they cannot afford to continue their education.

Table 4 *Shannon-Wiener* (H') type diversity index in yards in Metro City

Location	H'	Category
Upstream	2.41	Medium
Middle	2.33	Medium
Downstream	1.82	Medium
Average	2.19	Medium

Remarks: Low (H<1), medium (1<H<3), and high (H>3).

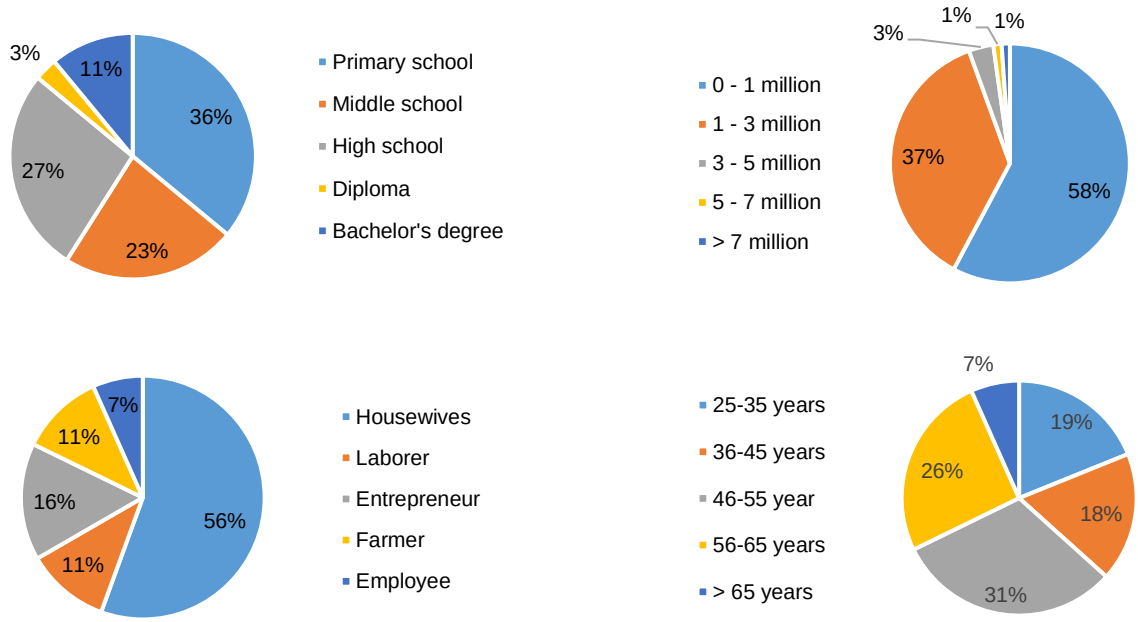

Figure 2 Characteristics of KWT members based on a) Education, b) Income, c) Occupation, and d) Age.

Perception of the Yard

Perceptions can be influenced by the characteristics of the KWT members (Table 5). A positive correlation means that the higher the level of education, the greater the understanding of the importance of the existence of a yard in supporting environmental sustainability. This indicates that KWT members with educational backgrounds such as high school, diploma, and bachelor's degree have a broader knowledge of various fields, the ability to think critically, and an open attitude, making it easier to receive new insights related to the environment. Education can change human perceptions, attitudes, and behaviors to make people more concerned about the environment. Concern for the environment will result in sustainable development, namely, development that meets the needs of the present and future generations (Priyanto *et al.* 2013).

The degree of importance (DK) of perception leads to the readiness of KWT members to utilize and develop the yard as a productive landscape. Respondents' knowledge of the importance of the existence of yards as productive land was very good (0.96) in the upstream and middle locations, then (0.95) in the downstream locations. The contribution of yards to environmental sustainability is also well known. The role of family members, especially wives, influences the development of productive yards. The type of work of KWT members is mostly housewives, which means that they have a greater opportunity to manage the yard into productive land. Knowledge of income from yard products as an alternative source of income is quite evenly distributed, but respondents in upstream locations have better knowledge. Respondents who have experience selling crops from the yard are certainly interested in continuing to use their yards. The price of medicinal plants increased during the pandemic; for example, ginger plants were sold at IDR 40,000.00/bag or IDR 30,000.00/kg. The increase in plant prices is due to the high market demand for medicinal plants as ingredients for warming the body, cough medicine, fever, and immune boosters during the Covid-19 pandemic. Therefore, efforts to increase immunity as an optimization of the yard by planting productive plants, such as food and herbs (Arifin *et al.* 2021). However, respondents who did not perceive the benefits of the yard tended to be hesitant. The yard products are only consumed according to the family's daily needs.

Productive habits in the use of yards should be maintained even though the situation has returned to normal to support a healthy lifestyle. Agricultural extension workers, KWT administrators and members, and local governments can collaborate to develop programs for planting potential commodities, both economically and environmentally. In the next step, KWT members are expected to become pioneers in the management of productive yards.

Table 5 Results of correlation test between the characteristics of KWT members and perception of the yard (α value)

Perception	Education	Income	Profession	Age
The importance of the yard	0.94	0.95	0.37	0.18
Contribution of yards in environmental sustainability	0.03*	0.83	0.89	0.33
The role of family members in yard management	0.30	0.51	0.80	0.29
Consumption of yard produce	0.87	0.82	0.21	0.20
Income from yard products	0.47	0.45	0.48	0.95
Yard management is still carried out during the Covid-19 pandemic	0.66	0.62	0.21	0.05
Knowledge of plant efficacies in the yard	0.23	0.83	0,98	0.43
Planting of aromatic plants	0.48	0.35	0.62	0.98
Production of yard to support daily needs	0.46	0.59	0.56	0.44

Remarks: * = Significant correlation at α level of 0.05.

Table 6 Degrees of importance of assessing public perception of the yard

Assessment aspects	Upstream		Middle		Downstream	
	Index	DI	Index	DI	Index	DI
The importance of the yard	0.95	SA	0.96	SA	0.95	SA
Contribution of yards in environmental sustainability	0.87	SA	0.93	SA	0.94	SA
The role of family members in yard management	0.79	A	0.81	SA	0.81	SA
Consumption of yard produce	0.80	A	0.83	SA	0.84	SA
Income from yard products	0.76	A	0.67	A	0.54	H
Yard management is still carried out during the Covid-19 pandemic	0.75	A	0.86	SA	0.78	SA
Knowledge of plant efficacies in the yard	0.77	A	0.79	A	0.67	S
Planting of aromatic plants	0.69	A	0.67	A	0.49	H
Production of yard to support daily needs	0.77	A	0.81	SA	0.77	A

Remarks: DI = Degree of importance; SS = Strongly agree, S = Agree, H = Hesitant.

CONCLUSION

The conclusion of this study is that plants that are often found in yards have ornamental functions and are producers of fruits, vegetables, medicines, and starch. The level of diversity of the plant types was in the medium category. Diversity is related to the use of yards through planting of various types of plants that have not been optimally planted. The yard area is not directly proportional to the level of diversity of plant types because plant planting can still be done on narrow lands vertically or by choosing the type of plant that is in accordance with the availability of land. The community has a strong interest in productive yards for food production, comfortable housing, social space, and environmental sustainability.

REFERENCES

Ali MS, Arifin HS, Arifin NHS. 2020. Dinamika pekarangan Kampung Selahuni 2, Desa Ciomas Rahayu, Bogor. *J Pengelolaan Sumber Daya Alam dan Lingkungan*. 10(3): 364–373.

Ali MS, Arifin HS, Nurhayati, Astawan M. 2022. The Pekarangan model for supporting food resiliency at the household level in the transmigration area of East Lampung. *J of Natural Resources and Environmental Management*. 12(3): 522–533. https://doi.org/10.29244/jpsl.12.3.522-533

Ambarwati NSS, Supiani T, Laksmi NA, Atmanto D. 2020. Peningkatan kesejahteraan keluarga dengan pemanfaatan lidah buaya untuk perawatan kulit kepala dan rambut. *J Kesejahteraan Keluarga dan Pendidikan*. 7(2): 117–129. https://doi.org/10.21009/JKKP.072.01

Arifin HS. 1998. Study on vegetation structure of pekarangan and its changes in West Java. Indonesia. [Dissertation]. Japan (JP): Okayama University.

Arifin HS, Munandar A, Kaswanto RL, Schultink G. 2012. The role and impacts of small-scale, homestead agro-forestry systems (“pekarangan”) on household prosperity: an analysis of agro-ecological zones of Java, Indonesia*. International Journal of Agrcultural Science*. 2(10): 896–914.

Arifin HS, Nurhayati, Kaswanto, Budiadi, Irwan SNR, Faisal B, Dahlan MZ, Nadhiroh SR, Wahyuni TS, Ali MS. 2021. Landscape management strategy of *pekarangan* to increase community immunity during the covid-19 pandemic in Java Indonesia – inductive research. *IOP Conference Series: Earth and Environmental Science*. 918: 1–14. https://doi.org/10.1088/1755-1315/918/1/012029

Asngad A. 2008. Pemanfaatan lidah buaya (*Aloe vera*) menjadi produk makanan berserat dengan penambahan berbagai jenis gula. *Jurnal Penelitian Sains & Teknologi*. 9(2): 144–155.

Athala S. 2021. Efektivitas gastroprotektif rimpang kunyit (*Curcuma domestica* Val*)* pada lambung yang di induksi aspirin. *J Ilmiah Kesehatan Sandi Husada*. 10(2): 402–407. https://doi.org/10.35816/jiskh.v10i2.616

Azizah BOP, Soedarto T, Parsudi S. 2022. Pemanfaatan lahan pekarangan dan peran kelompok wanita tani melalui program Pekarangan Pangan Lestari di Kota Malang. *Agroinfo Galuh*. 9(3): 956–970. https://doi.org/10.25157/jimag.v9i3.7905

[BPS] Badan Pusat Statistik Kota Metro. 2022. *Kota Metro dalam Angka 2022*. Kota Metro (ID): BPS.

Baharudin DF, Ali K, Jalil MA, Rofiq AA. 2021. Berkebun sebagai terapi kesihatan mental sewaktu pandemik *Covid-19*. *Journal of Islamic Social Sciences and Humanities*. 25(1): 97–114. https://doi.org/10.33102/abqari.vol24no2.376

Efendi AZ, Purnasari I. 2021. *Plant therapy* sebagai upaya menjaga kesehatan mental di masa pandemi. *Buletin Pemberdayaan Masyarakat dan Desa*. 1(1): 27–31. https://doi.org/10.21107/bpmd.v1i1.12022

Faznur LS, Wicaksono D, Anjani R. 2020. Inovasi tanaman *Sansevieria* (lidah mertua) sebagai sirkulasi udara alami di lingkungan Kampung Bulak Cinangka. *Seminar Nasional Pengabdian Masyarakat*. 1–10.

Hapsari L, Kennedy J, Lestari DA, Masrum A, Lestarini W. 2017. Ethnobotanical survey of bananas (Musaceae) in six districts of East Java, Indonesia. *Biodiversitas Journal of Biological Diversity*. 18(1). https://doi.org/10.13057/biodiv/d180122

Haryanto LI, Sukrianto, Maulana FA, Ulum M. 2022. Keragaan dan pendapatan usahatani tanaman hias *Aglaonema* di masa *New Normal*. *Seminar Nasional Penelitian LPPM UMJ*. 1–11.

Hartati S, Yunus A, Nandariyah, Yuniastuti E, Pujiasmanto B, Purwanto E, Samanhudi, Sulandjari, Ratriyanto A, Prastowo S, Manurung IR, Suryanti V, Susilowati A, Artanti AN, Mulyani S, Dirgahayu P. 2022. Diversifikasi tanaman pekarangan dengan tanaman alpukat untuk meningkatkan gizi keluarga. *Jurnal SEMAR*: *Jurnal Ilmu Pengetahuan, Teknologi, dan Seni bagi Masyarakat*. 11(2): 161–166. https://doi.org/10.20961/semar.v11i2.61199

Hsu E, Zhu B, Ding Z. 2020. *Allium fistulosum* congee as a home remedy to ward off the corona virus at an early stage. *Integative Medicine Research*. 9(3): 1–2. https://doi.org/10.1016/j.imr.2020.100463

Irwan SNR, Rogomulyo R, Trisnowati S. 2018. Pemanfaatan pekarangan melalui pengembangan lanskap produktif di Desa Mangunan, Kabupaten Bantul Yogyakarta. *Jurnal Ilmu Pertanian Indonesia*. 23(2): 148–157. https://doi.org/10.18343/jipi.23.2.148

Jutiviboonsuk A, Sardsaengjun C. 2010. Mangiferin in leaves of three thai mango *(Mangifera indica* L.*)* varieties. *International Journal of Physical Sciences*. 6(3): 122–129.

Kusnadi J, Andayani DW, Zubaidah E, Arumingtyas EL. 2019. Ekstraksi senyawa bioaktif cabai rawit (*Capsicum frutescens* L.) menggunakan metode ekstraksi gelombang ultrasonik. *Jurnal Teknologi Pertanian*. 20(2): 79–84.

Muntoha, Jamroni, Khoiruzaad M. 2015. Pelatihan pemanfaatan dan pengolahan ketela pohon menjadi bola-bola singkong keju. *Jurnal Inovasi dan Kewirausahaan*. 4(3): 177–183.

Mursito B, Prihmantoro H. 2011. *Tanaman Hias Berkhasiat Obat*. Jakarta (ID): Penebar Swadaya.

Odum EP. 1993. *Dasar-dasar Ekologi. Terjemahan Tjahjono Samingan. Edisi Ketiga*. Yogyakarta (ID): Gadjah Mada University Press.

Parvez GMM. 2016. Pharmacological activities of mango (*Mangifera indica*): a review. *Journal of Pharmacognosy and Phytochemistry*. 5(3): 01–07.

Perdani MS, Hasibuan AK. 2021. Analisis informasi tanaman herbal melalui media sosial di tengah masyarakat pada pandemi Covid-19: sebuah tinjauan literatur. *Bencoolen Journal of* Pharmacy. 1(1): 11–25.

Philip D, Kaleena PK, Valivittan K, Kumar CPG. 2011. Phytochemical screening and antimicrobial activity of *Sansevieria roxburghiana* Schult. and Schult. F. *Middle East Journal of Scientific Research*. 10 (4): 512–518.

Prasetyo BH, Suriadikarta DA. 2006. Karakteristik, potensi, dan teknologi pengelolaan tanah ultisol untuk pengembangan pertanian lahan kering di Indonesia. *Jurnal Litbang Pertanian*. 25(2): 39–47.

Priyanto Y, Djati MS, Soemarno, Fanani Z. 2013. Pendidikan berperspektif lingkungan menuju pembangunan berkelanjutan. *Wacana.* 16(1): 41–51.

Qisthina N, Kaswanto RL, Arifin HS. 2023. Manajemen pekarangan ramah lebah tanpa sengat sebagai upaya peningkatan jasa lanskap perkotaan. *J Ilmu Pertanian Indonesia.* 28(1): 46–58. https://doi.org/10.18343/jipi.28.1.46

Sarwono J. 2006. *Metode Penelitian Kuantitatif dan Kualitatif*. Yogyakarta (ID): Graha Ilmu.

Setyawan D. 2022. Tinjauan peningkatan penjualan tanaman hias di masa pandemi dengan *Life Cycle Assessment* (LCA). *UMJember Proceeding Series*. 1(2): 185–193.

Shofi M, Suwitasari F, Istiqomah N. 2020. Aktivitas antioksidan ekstrak etanol kamboja jepang (*Adenium obesum*) dan kamboja putih (*Plumeria acuminata*). *Al-Kauniyah: Jurnal Biologi*. 13(2): 167–178.

Silalahi M. 2021. Pemanfaatan nangka (*Artocapus heterophyllus*) sebagai obat tradisional dan bioktivitasnya. *Husada Mahakam: Jurnal Kesehatan*. 11(1): 42–53.

Siregar NN, Wahyuni S. 2018. Optimalisasi pemanfaatan lahan pekarangan sebagai Sumber pangan. *Jurnal Pengabdian Kepada Masyarakat*. 2(1): 146–149. https://doi.org/10.32696/ajpkm.v2i1.106

Sugiyono. 2013. *Metode Penelitian Pendidikan (Pendekatan Kuantitatif, Kualitatif, dan R&D)*. Bandung (ID): Alfabeta.

Sujiprihatin S, Suketi K. 2009. *Budi Daya Pepaya Unggul*. Jakarta (ID): Penebar Swadaya.

Tahir MI, Sitanggang M. 2008. *165 sansevieria ekslusif*. Jakarta (ID): PT AgroMedia Pustaka.

Wardani NPZK, Prasetyo P, Wardhani IP, Putri MTP, Shalihah S, Nabilah S, Nurhasanah L, Veronica JM, Ramadhani NI, Lubis D. 2022. Pemanfaatan sri rejeki (*Dieffenbachia seguine*) sebagai biopestisida pembasmi hama kutu untuk tanaman hortikultura. *Jurnal Pusat Inovasi Masyarat*. 4(2): 203–209. https://doi.org/10.29244/jpim.4.2.75-81

Winardi. 2013. Profil pertanian terpadu lahan pekarangan di Kota Padang: Tinjauan budi daya pertanian. *Jurnal Pertanian Tropik*. 1(1): 21–32.

Wiraatmaja IW. 2016. *Bahan Ajar Teknologi Budidaya Tanaman Hias*. Denpasar (ID)*: Fakultas Pertanian UNUD*.

Wirdayanti R, Muflih, Hiswati ME. 2021. Pemanfaatan tanaman herbal untuk meningkatkan imunitas tubuh selama pandemi Covid-19. *Jurnal Pengabdian Dharma Bakti*. 4(2): 85–91.

Yunisa TR, Susanto NS, Estiasih T, Panca NI. 2017. Potensi daun lidah mertua (*Sansevieria trifasciata)* sebagai biosorben logam timbal. *Jurnal Pangan dan Agroindustri*. 5(4):66–70.

Zulaikhah ST, Wibowo JW. 2022. Edukasi tentang manfaat air kelapa muda untuk meningkatkan imunitas di masa pandemi Covid-19. *J Abdimas-KU: Jurnal Pengabdian Masyarakat Kedokteran*. 1(2): 73–81.