Potential Utilization of Non-Herbal Garden Plants in Sawahan Village

Rahmi Idhayanti[a], Rayhan Arrazaq[a*], Romzi Maulana Irwansyah[a]

[a]Environmental Science Study Program, Faculty of Mathematics and Natural Science, Sebelas Maret University, Indonesia

ABSTRACT. The yard of the house in Indonesia is widely used as a medium in various activities, one of which is as a land for planting. The plants selected are various types of functions and uses, one of which is non-herbal plants. These non-herbal plants include ornamental and fruiting plants. Likewise, in Sawahan village, Ngemplak, Boyolali in this study almost all houses have yards planted with non-herbal plants. This is very useful because in addition to being able to make the house yard shady, the plants planted can also be used as fruit and can also be used as vegetables. Optimization of this land greatly affects the level of vegetation in Sawahan village area because it is included in the countryside that is still beautiful. This study aims to determine the type and potential of non-herbal plants in Sawahan village. The data analysis method used is descriptive qualitative because to provide an overview of the phenomena that occur as a whole. Data collection was carried out by interviews and field observations to obtain primary data and literature studies to supplement and strengthen as secondary data. The results showed that there are about 62 species of non-herbal plants in Sawahan village. The conclusion obtained there are 4 types of habitus, namely 4 species of epiphytic plants, 9 species of trees, 25 species of shrubs, and 4 species of spices with the potential use of non-herbal plants as ornamental plants about 51%, as a food source 48%, and utilized wood as much as 1%.

Keywords: fruit, non-herbal, plant, utilization, yard.

1. Introduction

Indonesia, which is included in the tropical climate, has abundant and diverse biodiversity. Various types of plants can thrive in the land of Indonesia due to rainfall that is evenly distributed and balanced in almost every area. Indonesian plants have many types, kinds, and benefits. A plant itself is a plant that intentionally or unintentionally grows in a Home, Garden and/or forest environment that can be benefited directly or indirectly (Harefa, 2020). In general, plants are used to be taken as food, clothing, ornamental, and medicinal. There is a separate classification of each plant taken benefits (Maghfiroh, 2017).

Every house must almost have a yard for a place of household activities. The yard can also be used as a parking lot, playground or where plants grow as a home greening. This often happens in villages that have yards for planting crops to take advantage of. Sawahan village is one example of the application of overgrown yards. Most residents of Sawahan village have very narrow to narrow yards that range from 70-300 square meters. Sawahan village is located in Ngemplak District, Boyolali regency there are many houses where the yard is grown non-herbal plants.

Non-herbal plants include plants that are used but not in the medicinal aspect. This plant is usually only used for appearance and/or as food and wood functions. The function of non-herbal plants is very diverse ranging from decorating the yard, taken the fruit and wood for food and building materials. Usually this plant is not too big because it is in the yard of a citizen's house. The purpose of this study was to determine the type and potential of non-herbal plants in Sawahan village.

2. Materials and Methods

2.1 Methods

Data collection was carried out by field observation and interview methods. The data obtained are based on secondary data with literature studies and primary data by direct observation. Primary Data can be defined as sumber power obtained directly from the original source (Saputra et al., 2018). Meanwhile, secondarydata is the type of data obtained from a reference that is the same as what the researcher is researching (Sari and Zefri, 2019). The results of observations that have been made will be identified using the website identify.plantnet.org to find out the types of non-herbal plants that exist in the yard of Sawahan village. After the plant species data obtained, the authors analyze the potential of the use of non-herbal plants. Data analysis method used is descriptive qualitative. This method refers to a picture of the data that has been obtained related to the phenomenon that occurs as a whole, both naturally occurring and engineering (Akhmad, 2015).

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*Corresponding author: azzaqae@student.uns.ac.id

2.2 Region Research

The study was conducted in July 2022 and was located in Sawahan village, Ngemplak District, Boyolali regency, Central Java. Based on The Central Bureau of Statistics data in 2020, the area of Sawahan village is about 2.66 km2 with a male population of 5,753 people, and 5,684 women.

3. Result and Discussion

Based on the results of interviews with informants, each informant is in Table 1 in the entire age range in Sawahan village is known to have sufficient knowledge related to the types of non-herbal plants and the benefits of these plants that exist in the yard. This is because community activities are still often related to the surrounding plants. The use of non-herbal plants encourages knowledge and insight related to plants more widely and continues from time to time. Based on Table 2 plants have various types of benefits, including ornamental plants (TH), spices (R), kitchen ingredients (BD), fresh fruit (BS), vegetables (S), wood (K), and staple foods (MP). Non-herbal plants are plants that are used other than for medicine. There are so many types of non-herbal plants that can be grown in the yard of the House. As we have observed, Sawahan villagers have various types of plants that live in their yard. The loose and fertile soil easily becomes a growing medium for various types of plants. Starting from food plants, ornamental, and also Woody which of course functions and uses are different. This makes its own potential for Sawahan village residents to utilize their land as much as possible.

In our identification, there are 62 plant species in Sawahan village. If divided by habitus, there are 4 types of habitus, namely 4 species of epiphytic plants, 9 species of trees, 25 species of shrubs, and 4 species of spices. Utilization of plants is high to be used as ornamental plants and garden plants are also high potential to be used as a source of food. In addition, there are residents who plant teak trees in the yard of his house in order to use the wood.

Table 1
Demographics of respondents

Parameter	Specification	Frequency
Gender	Male	13
	Female	17
Age	<26	5
	26-35	12
	36-45	4
	46-55	6
	56-65	56-65 3
	>65	0
Education	Level not School	2
	Elementary School	11
	Junior High School	8
	Senior High School	5
	Collage	4
Jobs	Farmer Job	13
	Entrepreneur	7
	Housewife	5
	Private	3
	Civil servant	2

Table 2
Types of non-herbal plants in Sawahan village

Family	Scientific name	Indonesian name	Categories of benefits	Utilized parts	Amount
Amaranthaceae	*Celosia argentea L.*	Boroco	TH	Leaf	3
Amaranthaceae	*Iresine herbstii Hook.*	Miyana mangkuk	TH	Leaf	9
Anacardiaceae	*Mangifera indica*	Mangga madu (mango)	BS	Fruit	5
Annonaceae	*Annona muricata*	Sirsak (soursop)	BS	Fruit	11
Annonaceae	*Annona sguamosa*	Srikaya	BS	Fruit	16
Apocynaceae	*Adenium obesum*	Kamboja Jepang (cambodia)	TH	Flower	10
Family	Scientific name	Indonesian name	Categories of benefits	Utilized parts	Amount
Araceae	*Alocasia brisbanensis*	Cunjevoi	TH	Leaf	7
Araceae	*Aglaonema sp.*	sri rejeki	TH	Leaf	15
Araceae	*Alocasia brisbanensis*	Talas (besar) (taro)	BD	Tuber	7

Family	Scientific name	Indonesian name	Categories of benefits	Utilized parts	Amount
Araceae	*Colocasia esculenta (L.) Schott*	Kuping gajah	TH	Leaf	8
Araliaceae	*Polyscias guilfoylei (W.Bull) L.H.Bailey*	White Chip Ararea	TH	Leaf	8
Arecaceae	*Cocos nucifera L*	Kelapa (coconut)	BS	All parts	15
Asparagaceae	*Agave americana L.*	Agave	TH	Leaf	5
Asparagaceae	*Asparagus densiflorus (Kunth) Jessop*	Asparagus	S	Leaf	6
Asparagaceae	*Sansevieria trifasciata Prain*	Lidah mertua	TH	Leaf	5
Asteraceae	*Cosmos caudatus Kunth*	Kenikir	TH	Leaf	29
Athyriaceae	*Diplazium esculentum*	Pakis sayur (fern)	S	Fruit	4
Balsaminaceae	*Impatiens balsamina L.*	Pacar air	TH	Flower	11
Cactaceae	*Hylocereus sp.*	Buah naga (dragon fruit)	BS	Fruit	8
Cactaceae	*Nopalea cochenillifera (L.) Salm-Dyck*	Kaktus (cactus)	TH	Stem	21
Campanulaceae	*Hippobroma longiflora (L.) G.Don*	Ki tolod	TH	Leaf	20
Caricaceae	*Carica papaya L*	Pepaya (papaya)	BS	Fruit	27
Commelinaceae	*Callisia repens (Jacq.) L.*	tanaman kribo	TH	Leaf	3
Family	Scientific name	Indonesian name	Categories of benefits	Utilized parts	Amount
Commelinaceae	*Tradescantia spathacea*	Adam Eva	TH	Leaf	5
Compositae	*Zinnia elegans L.*	Bunga kertas	TH	Flower	8
Convolvulaceae	*Ipomoeae batatas*	Ubi jalar (sweet potato)	MP	Tuber	35
Cornaceae	*Cornus alba L.*	Dogwood putih	TH	Leaf	4
Euphorbiaceae	*Acalypha siamensis*	Teh-tehan (tea leaf)	TH	All parts	36
Euphorbiaceae	*Manihot esculenta*	Singkong (cassaba)	S / MP	Leaf / Tuber	27
Euphorbiaceae	*Manihot utilissima*	Ubi kayu (cassava)	MP	Tuber	5
Myrtaceae	*Psidium guajava*	Jambu biji (guava)	BS	Fruit	17
Myrtaceae	*Syzygium aquea L.*	Jambu air (water apple)	BS	Fruit	8
Lamiaceae	*Plectranthus spp.*	Tanaman Iler	TH	Leaf	5
Lamiaceae	*Tectona grandis L.f.*	Jati (teak)	K	Stem and Leaf	34
Leguminosae	*Leucaena leucocephala (Lam.) de Wit*	Lamtoro	TH	Leaf	15
Moraceae	*Artocarpus heterophyllus*	Nangka (jackfruit)	S / BS	Fruit and seed / Fruit	5
Musaceae	*Musa balbisiana*	Pisang Batu (banana)	BS	Fruit	21
Nyctaginaceae	*Bougainvillea spectabilis Willd.*	Bougenvil	TH	Flower	16
Orchidaceae	*Dendrobium bigibbum Lindl.*	Anggrek larat (orchid)	TH	Flower	8

Family	Scientific name	Indonesian name	Categories of benefits	Utilized parts	Amount
Oxalidaceae	*Averrhoa bilimbi L.*	Belimbing wuluh (starfruit)	BS	Fruit	25
Pandanaceae	*Pandanus amaryllifolius Roxb*	Pandan wangi (pandanus)	BD	Leaf	16
Petiveriaceae	*Rivina humilis L.*	getih-getihan	TH	Leaf	1
Poaceae	*Bambusa tuldoides Munro*	Bambu (bamboo)	TH	Stem	60
Poaceae	*Cymbopogon citratus (DC.) Stapf*	Sereh (lemongrass)	BD	Stem	25
Poaceae	*Phyllostachys aureosulcata*	Pring Gading (ivory bamboo)	TH	Stem and Leaf	24
Portulacaceae	*Portulaca grandiflora Hook.*	Krokot	TH	Leaf	30
Rosaceae	*Rosa cinnamomea L.*	Mawar (rose)	TH	Flower	17
Rubiaceae	*Morinda citrifolia*	Mengkudu (noni)	BS	Fruit	5
Rubiaceae	*Pentas lanceolata (Forssk.) Deflers*	starcluster Mesir	TH	Leaf	4
Rutaceae	*Citrus amblycarpa*	Jeruk Limau (lime)	BS	Fruit	4
Rutaceae	*Citrus 脑 aurantiifolia*	Jeruk Nipis (lime)	BS	Fruit	12
Rutaceae	*Citrus maxima*	Jeruk Bali (pomelo)	BS	Fruit	6
Sapindaceae	*Filicium decipiens (Wight & Arn.) Thwaites*	kerai payung	TH	Leaf	2
Sapindaceae	*Pometia pinnata*	Matoa	BS	Fruit	6
Sapotaceae	*Manilkara zapota*	Sawo (sapodilla fruit)	BS	Fruit	12
Family	Scientific name	Indonesian name	Categories of benefits	Utilized parts	Amount
Selaginellaceae	*Selaginella sp.2*	paku lumut (moss fern)	HT	Leaf	27
Selaginellaceae	*Selaginella sp.*	Paku rane (rane fern)	TH	Leaf	15
Solanaceae	*Solanum sp.*	Terong (eggplant)	S	Fruit	42
Solanaceae	*Capsicum spp*	Cabai (chili)	S	Fruit	42
Solanaceae	*Solanum torvum Sw.*	Takokak	BD	Fruit and Seed	2
Xanthorrhoeaceae	*Aloe vera*	Lidah buaya (aloe vera)	BD	Fruit Filling	30
			TH	All parts	39
Zingiberaceae	*Zingiber officinale Rosc*	Jahe (ginger)	R	Root	19

3.1 Utilization Potential

Plants that live in Sawahan village have several potential uses that can be categorized into ornamental plants, food crops, and plants that are used for wood.

a. Food

Human food sources can be taken from various sources, one of which is vegetable food or food sourced from plants. Food crops are plants that can be used as a source of food. The use of plants as food can be done by consuming directly or through processed processes. In this study, several types of plants have been identified that can be used as a food source. Among them, there are types of plants that can be used as a source of carbohydrates or staple foods such as cassava or *Manihot esculenta* and cassava or *Manihot utilissma* from the Euphorbiaceae family, Sweet Potato tree or *Ipomoeae batatas* from the Convolvulaceae family. In addition, there are fruit plants such as grapefruit or *Citrus maxima* trees, limes or *Citrus amblycarpa*, lime or *Citrus aurantiifolia* from the Rutaceae family, soursop trees or *Annona muricata* and srikaya or *Annona sguamosa* from the Annonaceae family.

b. Decorate

Ornamental plants are a type of plant that is used to provide aesthetic value to the environment around the yard. Based on the data in the Table. 2, the number of existing ornamental plants is about 31 kinds of garden plant species. Garden plants in Sawahan village are most widely used as ornamental plants. This shows that the villagers pay attention to the aesthetics of the environment around their homes.

c. Wood

Plants that use wood usually have wood tissue as the structure so that the STEM is classified as hard. The use of this plant can potentially be used as raw material for furniture as well as can be sold to increase revenue. Based on the data in the Table. 2, the number of plants used wood about 1 type of plant that is teak. This type of wood tree is rarely found in Sawahan village because the yard is mostly classified as very narrow to narrow. This is because there is a balance of land use with the availability of land and the selection of plants used.
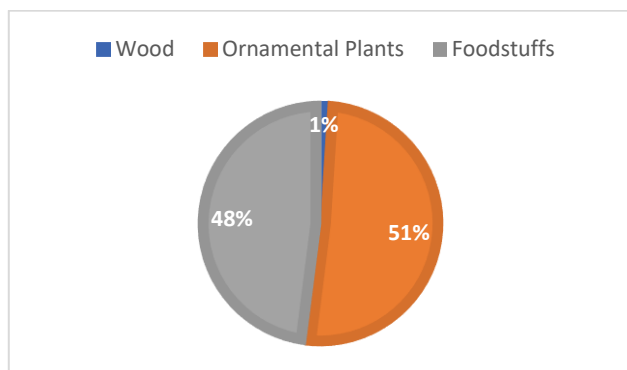

Fig. 1 Plant Utilization Percentage Chart

Based on the data on Fig 1 we obtained, the utilization of non-herbal plants in Sawahan village can be presented in the form of graphs above. The utilization of plants as ornamental plants is classified as the highest with a presentation of 51%, followed by utilization as foodstuffs as much as 48%, then the last Wood is used as much as 1%.

4. Conclusion

Based on the results of research that we have done at several points in the Sawahan village area, there are 62 types of non-herbal plant species planted in the yards of residents ' homes. If divided by habitus, there are 4 types of habitus, namely 4 species of epiphytic plants, 9 species of trees, 25 species of shrubs, and 4 species of spices. The highest utilization of garden plants in Sawahan village is used as an ornamental plant as much as 51% and the second highest utilization is used as a food source as much as 48%, while the other potential is to use the wood as much as 1%.

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