



Tradition and plants: Ethnobotany in the perlon unggahan ritual of the bonokeling lineage indigenous people

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ARTICLE INFO	ABSTRACT
<p>Article history Received: 03 July 2024 Revised: 04 December 2024 Accepted: 20 December 2024</p> <p>Keywords: Bonokeling Lineage Ethnobotany Indigenous People of the Perlon Unggahan Ritual</p>	<p>The Bonokeling lineage, known in Indonesian as keturunan Bonokeling, is an indigenous community in Central Java, Indonesia, descended from Ki Bonokeling, a revered spiritual figure. They are known for preserving unique traditions and rituals that blend Javanese cultural values with Islamic teachings. One of their significant rituals is perlon unggahan, a ceremonial event held annually as a form of gratitude and preparation ahead of the fasting month of Ramadan. This study explores the tradition and the role of plants in the perlon unggahan ritual, focusing on their utilization and cultural significance. A qualitative research method with a phenomenological approach was employed, involving participatory observation, semi-structured in-depth interviews, documentation, and literature review. Data was collected from 11 informants selected through purposive sampling. The findings show that the ritual uses 39 plant species from 22 families. The Zingiberaceae family is the most frequently utilized. The most used plant parts are fruits, followed by leaves, stems, seeds, flowers, rhizomes, tubers, and sap. Among all the plants observed, krambil (<i>Cocos nucifera</i> L.) has the highest Species Use Value (SUV), which is highlighting its central role in the ritual. Plant use is categorized into three main functions: food, offerings, and ceremonial equipment. These findings underscore the importance of preserving both the cultural heritage and the biodiversity associated with this traditional ritual.</p>

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INTRODUCTION

Indonesia, with its vast archipelago, is renowned for its rich cultural and biological diversity, which is reflected in the traditions of its indigenous peoples. Among these communities, the Bonokeling lineage, or *keturunan Bonokeling*, stands out as a unique representation of enduring cultural heritage. Located in Pekuncen Village, Banyumas Regency, Central Java, this indigenous group traces its roots to the Javanese tribe and is distinguished by its steadfast commitment to preserving ancestral traditions and local wisdom (Sari et al., 2020). One of their key cultural expressions is the *perlon unggahan* ritual, an annual ceremony before Ramadan. This ritual embodies profound philosophical values, fostering harmony and unity among community members. Central to the ritual is the utilization of plants, which serve as offerings, food, and ceremonial tools. These plants are not only essential for the ritual's implementation but also hold cultural, spiritual, and ecological significance. Studying this ritual reveals the deep connection between their cultural heritage and ethnobotanical knowledge.

In Indonesia, many ethnic groups or tribes use plants as an integral part of their daily lives, including in the implementation of various rituals that are part of their cultural heritage (Saudah et al., 2022; Sitanggang et al., 2022). Based on their local knowledge, each ethnic group believes that plants hold symbolic meanings reflected in their utilization. In rituals, various parts of plants, such as roots, leaves, stems, flowers, fruits, tubers, rhizomes, and so on, have a deep symbolic or spiritual role, decorative elements (aesthetics), and functional roles. Kholifah et al. (2020) also expressed a similar view, stating that plants play a central role in the implementation of rituals, serving as key elements that carry meaning and spiritual power in every step.

In this context, the discipline that studies the interaction between humans and plants, which includes knowledge about the traditional use of plants by a community or ethnic group, is known as ethnobotanical studies (Pei et al., 2020). The connection between ritual practices or traditional ceremonies and ethnobotanical studies is an interesting and closely related foundation, opening opportunities for a deeper understanding of how humans interact with plants in the context of culture and local wisdom. Ethnobotanical studies have great potential to reveal the traditional knowledge of certain ethnic community groups in managing biological resource diversity and their approach to preserving the environment wrapped in cultural values owned by each ethnic community group (Purwanto et al., 2021).

Previous studies have provided an important scientific basis to support the significance of the research to be carried out. One of the previous studies, as mentioned by Safitri et al., (2023), highlighted that the cultural environment of traditional communities is indeed rich in local wisdom, but not much has been revealed about how this wisdom grows and is maintained in the lives of these communities. Therefore, the traditional knowledge of each tribe needs to be documented through ethnobotanical studies so that it is not lost in cultural modernization. Based on this, the researcher sought to fill the void of previously unexamined information, especially the lack of documentation regarding the types of plants used by an ethnic group or tribe as an integral part of their daily lives, including in the performance of various rituals. This creates a need for more in-depth knowledge to understand ethnobotanical practices in this context.

Based on the results of observations and literature studies conducted by the researcher, it was revealed that the indigenous people of the Bonokeling lineage utilize various types of plants in the implementation of the *perlon unggahan* ritual (Arauf, 2023). However, the various species of plants used have not been documented in writing and formally in the context of ethnobotanical studies, where knowledge about the variety of plants is still not well-organized and completely arranged. Therefore, ethnobotanical research is needed that focuses on the utilization of plants in the implementation of the *perlon unggahan* ritual by the indigenous people of the Bonokeling lineage. Through ethnobotanical research, it can be further explored how community knowledge related to plants is passed down from one generation to the next, as well as revealing the secrets of local wisdom related to the selection, use, and symbolism of plants in the context of rituals.

The urgency of this research lies in its contribution to preserving the unique cultural and ethnobotanical heritage of the Bonokeling lineage, a community that differs significantly from other Javanese groups in their integration of traditional beliefs and practices. The Bonokeling people, unlike many Central Javanese communities, have preserved a unique blend of spiritual and cultural traditions, evident in their distinctive use of plants in rituals such as *perlon unggahan*. This research documents not only the specific plants utilized and their cultural significance but also the local wisdom embedded

in these practices, which underscores a deep connection between nature and culture. By highlighting these distinct traditions, this study enriches our understanding of biodiversity and ecosystems while offering a fresh perspective on biology education through the integration of ethnobotanical insights.

METHODS

Research Design

This type of research employs qualitative research methods, specifically the phenomenological approach. The phenomenological approach is a qualitative research method that aims to understand human experiences from the perspective of individuals and focuses on understanding subjective experiences and everyday realities of individuals and communities (Heidegger, 2005). This approach aims to reveal the meaning of events experienced by individuals or groups (Creswell, 2012). This research was conducted from February to March 2024 in the environment of the Indigenous people of the Bonokeling lineage located on Pekuncen Street, Pekuncen Village, Jatilawang District, Banyumas Regency, Central Java, Indonesia.

Population and Samples

In sampling, the method used was non-probability sampling with a purposive sampling technique. In this study, the sample criteria are individuals who have in-depth knowledge about the use of plants in the implementation of the perlon unggahan ritual by the indigenous people of the Bonokeling lineage. The informants who became the sample of this research amounted to 11 people, including the head of Pekuncen village (1 person), the head of the Bonokeling lineage indigenous group (1 person), bedogol Bonokeling lineage (4 people), tunggu bale Bonokeling lineage (1 person), and children of Bonokeling lineage (4 people).

Instrument

In this study, the researcher used an interview guideline as the primary instrument for data collection. The guideline was designed to explore key aspects related to the use of plants in the implementation of the Perlon Unggahan ritual by the Indigenous people of the Bonokeling lineage in Pekuncen Village, Banyumas Regency, Central Java, Indonesia. The instrument focused on several aspects, including 1) the types of plants used in the ritual; 2) the parts of the plants utilized; 3) the cultural and symbolic significance of plants; 4) the sources or origins of the plants (garden, yard, market, forest); 5) the different ways in which the plants are used (offerings, food, equipment); 6) the roles and meanings of plants in the ritual process; 7) traditional knowledge and practices related to plant use; and the participants' perspectives on the continuity and significance of these practices.

Procedure

In the research implementation stage, the preparation of tools and materials is very important. The tools used include cameras for visual documentation, stationery for recording information, and laptops for processing data. Research materials include interview guidelines and an official cover letter from the Dean of the Faculty of Teacher Training and Education, Siliwangi University for legitimization and research permission. Careful preparation is expected to make the research more systematic and efficient. Furthermore, in the administrative stage at the research location, the researcher must submit a research cover letter from the Dean of the Faculty of Teacher Training and Education, Siliwangi University to the Head of Pekuncen Village and the leader of the Bonokeling Indigenous Community before starting the research. This stage also included the necessary planning, document collection, and organizing, applying to obtain the Pekuncen Village profile archived by the Pekuncen Village Office. This step was taken as part of the preparation to gather information that supports and completes the research framework, ensuring that the data obtained has a solid basis for further analysis. In addition, researchers interacted with informants to set interview schedules, ensuring the selection of appropriate informants to obtain quality data on the utilization of plants in the perlon unggahan ritual by the indigenous people of the Bonokeling lineage in Pekuncen Village.

After that, in the data collection stage, the researcher conducted semi-structured interviews with informants related to the utilization of plants in the perlon unggahan ritual by the indigenous people of the Bonokeling lineage in Pekuncen Village, Banyumas. This interview used prepared guidelines. In addition to interviews, researchers also conducted observations and documentation to understand the

research location, culture, and values of the local community. Direct observation of the perlon unggahan ritual during its implementation was also part of the observation and documentation activities. The information obtained from the observation and documentation stages became the basis for further analysis in the context of ethnobotanical research and served to strengthen the data that had been obtained during the interview sessions. Furthermore, the data processing stage in this research includes sorting, organizing, calculating analysis, interpreting results, presenting findings, and making conclusions. The conclusion is expected to contribute to the understanding of ethnobotany and become a biology learning resource in the form of an e-booklet that reviews the utilization of plants in the perlon unggahan ritual by the indigenous people of the Bonokeling lineage.

Data Analysis Techniques

Data analysis includes:

1) Classification of Plant Species Based on Plant Family Used in Perlon Unggahan Ritual

The plants used in the perlon unggahan ritual are grouped based on the plant family used.

Percentage of Plant Family =

$$\left(\frac{\text{total plants in a particular familia group}}{\text{total plants used}} \right) \times 100\%$$

2) Classification of Plant Types Based on Plant Parts Used in Perlon Unggahan Ritual

The plants used in the perlon unggahan ritual are grouped based on the plant parts used.

Percentage of Plant Parts =

$$\left(\frac{\text{total usefulness based on specific parts used}}{\text{total usefulness of all plant parts used}} \right) \times 100\%$$

3) Use Value of Plant Species Used in the Perlon Unggahan Ritual

Species use value is a description of the level of use value of a species (Jadid et al., 2020). Species use value is used to calculate the use value of a plant and to find out how important a plant is used by the indigenous people of the Bonokeling lineage in the context of performing the perlon unggahan ritual. The formula used is =

$$UV_s = \frac{\sum UV_{is}}{n_i}$$

Information:

UVs : Use value (benefit) of a particular species

$\sum UV_{is}$: Total of all uses mentioned by informants from one plant species

n_i : Total number of informants interviewed

RESULTS AND DISCUSSION

Table 1 below presents an overview of plant species utilized in the perlon unggahan ritual by the Bonokeling lineage indigenous people. It includes information on the plant families, local names in Javanese, and scientific names, showcasing the diverse range of species involved in the ritual. The description also includes the plant parts used, such as tubers, rhizomes, roots, stems, leaves, flowers, and fruits, reflecting the community's extensive knowledge of plant morphology. The community categorizes the plants based on their specific roles and applications during the ritual, including their use as offerings, tools, equipment, and foodstuff. The categorization is necessary to better understand the functional diversity of plants within the ritual. Offerings include plants used symbolically or spiritually as a form of homage to ancestors or the divine. Equipment refers to plants used as supporting materials for ritual tools or ceremonial setups, such as leaves used to wrap or present offerings. Foodstuff includes plants prepared and consumed as part of the ritual meal shared by the community, which strengthens social ties and expresses gratitude.

The plants used in the perlon unggahan ritual are sourced from various locations, reflecting their connection to both local and external environments. The Bonokeling lineage cultivates or collects many of the plants from surrounding areas such as yards, gardens, rice fields, or nearby forests, but not all

species are native or readily available in the community's immediate environment. The community obtains plants not found or cultivated locally from markets. This practice exemplifies the community's adaptable approach to ensure the availability of necessary plants for their cultural traditions, even when certain species require external sourcing.

Classification of Plant Species Based on Plant Families Used in Perlon Unggahan Rituals

The plants utilized in the perlon unggahan ritual are categorized according to their respective plant families. The findings revealed the classification of the 39 plant species used into 22 families. The most widely used plant family is the Zingiberaceae family. Figure 1 illustrates that the Zingiberaceae family holds the highest usage percentage of 12.8%. According to the interview, the indigenous people of the Bonokeling lineage often use plant species such as jae (*Zingiber officinale* Roscoe), kapulogo (*Elettaria cardamomum* (L.) Maton), kecombrang abang (*Etilingera elatior* (Jack) R. M. Sm.), kunir (*Curcuma longa* L.), and laos (*Alpinia galanga* (L.) Willd.) belonging to the Zingiberaceae family as a seasoning for becek (opor/gulai) and lemengan dishes, among other dishes that are typical of the Bonokeling lineage.

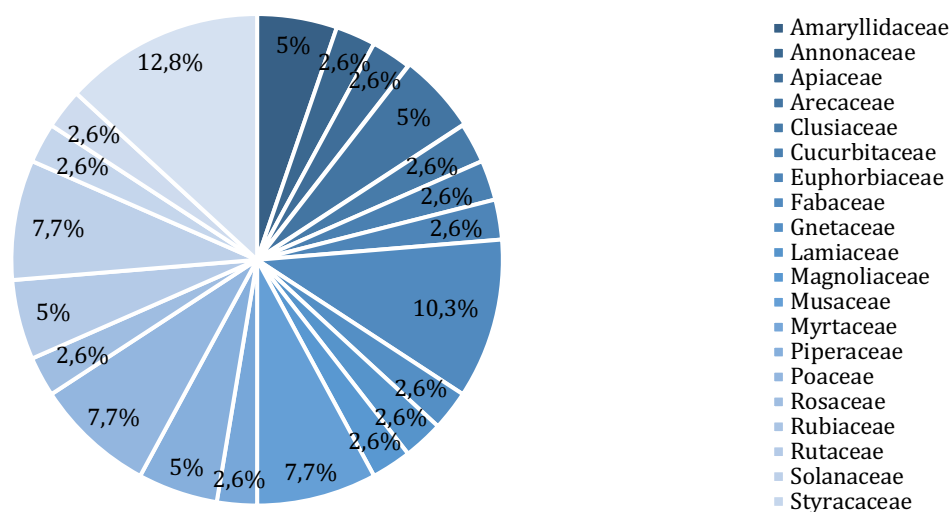


Figure 1. Diagram of Plant Species Based on Plant Families Used in Perlon Unggahan Rituals

The utilization of Zingiberaceae plants reflects both similarities and unique distinctions compared to broader Javanese practices serve multiple purposes, ranging from food ingredients and spices to traditional medicine (Nurhazizah, 2021; Wahidah et al., 2021). However, the Bonokeling lineage's use of these plants is deeply embedded in their spiritual and ritualistic framework. Unlike general Javanese culture, where these plants are primarily valued for their practical culinary uses, in Bonokeling traditions, their preparation and use are intertwined with ancestral veneration and the symbolic meaning of the ritual dishes. This cultural context highlights the uniqueness of the Bonokeling community's practices. The preparation of becek and lemengan involves not just culinary expertise but also adherence to specific spiritual customs, including prayers and offerings dedicated to ancestors. These customs distinguish the Bonokeling lineage from other Javanese groups, emphasizing their distinct approach to integrating plant utilization with cultural and spiritual values.

Table 1

Species of Plants, Plant Parts, Utilization Categories, and the Origin of Plant Species Used in Perlon Unggahan Ritual by Bonokeling Lineage Indigenous People

No	Family	Plants Name		Plant Parts	Utilization Categories	Origin of Plant				
		Local Name (Javanese)	Scientific Name			Pe	K	S	H	Pa
1.	Fabaceae	Sengon	<i>Falcataria falcata</i> (L.) Greuter & R.Rankin	Stems	Equipment: pieces of dried stems are used as firewood when cooking becek (opor/gulai) and lemengan		✓		✓	
2.	Poaceae	Pring	<i>Gigantochloa apus</i> (Schult.f.) Kurz ex Munro	Stems	Equipment: pieces of bamboo stalks are assembled to serve as a cooking stove for lemengan.					
					Equipment: a 60 cm piece of bamboo rod is used as a container when cooking lemengan.					
2.	Poaceae	Pring	<i>Gigantochloa apus</i> (Schult.f.) Kurz ex Munro	Stems	Equipment: pieces of bamboo sticks are used as irus handles/vegetable ladles when cooking becek (opor/gulai).		✓		✓	
					Equipment: splitting bamboo sticks into long and thin pieces and then weaving them into a certain pattern to be used as a container for storing ambeng rice or other dishes in a large capacity, which is then carried by carrying it, called berokoh (tomblok)					
3.	Amaryllidaceae	Brambang	<i>Allium cepa</i> L.	Tubers	Foodstuff: pounded in a mortar to be used as seasoning in becek (opor/gulai), lemengan, and other side dishes that are typical of the Bonokeling lineage.	✓				✓
4.	Amaryllidaceae	Bawang	<i>Allium sativum</i> L.	Tubers	Foodstuff: pounded in a mortar to be used as seasoning in becek (opor/gulai), lemengan, and other side dishes that are typical of the Bonokeling lineage.	✓				✓
5.	Solanaceae	Lombok Keriting	<i>Capsicum annuum</i> L.	Fruit	Foodstuff: pounded in a mortar to be used as seasoning in becek (opor/gulai), lemengan, and other side dishes that are typical of the Bonokeling lineage.	✓	✓			
6.	Solanaceae	Lombok Temen	<i>Capsicum frutescens</i> L.	Fruit	Foodstuff: pounded in a mortar to be used as seasoning in becek (opor/gulai), lemengan, and other side dishes that are typical of the Bonokeling lineage.	✓	✓			
7.	Magnoliaceae	Kanthil	<i>Magnolia × alba</i> (DC.) Figlar	Flowers	Offerings: in general, there are 3 materials used as the main elements of the "kembang telon" offerings, namely white cempaka flowers, rose flowers, and kenanga flowers.	✓				
8.	Rubiaceae	Ghambhir	<i>Uncaria gambir</i> (Hunter) Roxb.	Leaves Stems	Offerings: in general, there are 5 ingredients used as the main elements of the "menginang/nyirih" offerings, namely betel nut, betel lime (njet), areca nut, tobacco, and gambier.					✓
9.	Zingiberaceae	Jae	<i>Zingiber officinale</i>	Rhizomes	Foodstuff: pounded in a mortar to be used as a seasoning	✓	✓			

		Roscoe		ingredient in becek (opor/gulai) dishes.			
10.	Lamiaceae	Jati	<i>Tectona grandis</i> L. f.	Leaves	Equipment: assembled to be used as food wrapping material, e.g. becek (opor/gulai)	✓	✓
11.	Rutaceae	Jeruk Legi	<i>Citrus × sinensis</i> (L.) Osbeck	Fruit	Equipment: laid out to serve as a base when cutting meat		
12.	Rutaceae	Jeruk Purut	<i>Citrus hystrix</i> DC.	Leaves	Foodstuff: used as a seasoning in becek (opor/gulai), lemengan, and other side dishes that are typical of the Bonokeling lineage.	✓	✓
13.	Fabaceae	Dele/Kancadele	<i>Glycine max</i> (L.) Merr.	Seeds	Foodstuff: processed as one of the dishes as a complement to side dishes	✓	✓
14.	Fabaceae	Lentre/Kacang Lanjaran	<i>Vigna unguiculata</i> (L.) Walp.	Fruit	Foodstuff: processed as one of the dishes as a complement to side dishes	✓	✓
15.	Fabaceae	Kacang Krenthul/ Kacang Brol	<i>Arachis hypogaea</i> L.	Seeds	Foodstuffs: boiled peanuts are used as a dish	✓	✓
16.	Zingiberaceae	Kapulogo	<i>Elettaria cardamomum</i> (L.) Maton	Seeds	Foodstuff: pounded in a mortar to be used as a seasoning ingredient in becek (opor/gulai) dishes.	✓	✓
17.	Zingiberaceae	Kecombrang Abang	<i>Etilingera elatior</i> (Jack) R.M.Sm.	Stems	Foodstuffs: processed as a seasoning ingredient for one of the typical dishes of the Bonokeling breed as a complement to side dishes.	✓	✓
				Flowers	Foodstuffs: processed as a seasoning ingredient for one of the typical dishes of the Bonokeling breed as a complement to side dishes.		
18.	Arecaceae	Krambil	<i>Cocos nucifera</i> L.	Leaves	Equipment: young coconut leaves (janur) are woven to form a certain pattern to be used as a food container called sleman. Equipment: old coconut leaves are woven to form a certain pattern to be used as a container for storing ambeng rice or other dishes in a large capacity, which is then carried by being carried, which is referred to as berokoh (tomblok).	✓	✓
				Fruit	Equipment: the dried leaves are used as a natural fuel or wick to light firewood when cooking becek (opor /gulai) and lemengan Offerings: used as a complement to offerings Foodstuffs: the flesh of the fruit is processed into coconut milk which is used in a typical perlon unggahan dish namely becek (opor/gulai) Foodstuffs: the fruit is processed into serundeng, which is grated coconut that is fried dry and used as a side dish.		

					Equipment: part of the coconut shell is used as an irus / vegetable ladle when cooking becek (opor /gulai)			
					Equipment: the coir part of the coconut is used as a natural fuel or wick to light firewood when cooking lemengan			
19.	Styracaceae	Menyan	<i>Styrax benzoin</i> Dryand	Sap	Offerings: used as a complement to offerings			✓
20.	Euphorbiaceae	Miri	<i>Aleurites moluccanus</i> (L.) Willd.	Seeds	Foodstuff: pounded in a mortar to be used as a seasoning ingredient in becek (opor/gulai) dishes.			✓
21.	Annonaceae	Kenongo	<i>Cananga odorata</i> (Lam.) Hook. f. & Thomson	Flowers	Offerings: in general, there are 3 materials used as the main elements of the "kembang telon" offerings, namely white cempaka flowers, rose flowers, and kenanga flowers.	✓		
22.	Apiaceae	Tumbar	<i>Coriandrum sativum</i> L.	Seeds	Foodstuff: pounded in a mortar to be used as a seasoning ingredient in becek (opor/gulai) dishes.			✓
23.	Zingiberaceae	Kunir	<i>Curcuma longa</i> L.	Rhizomes	Foodstuff: pounded in a mortar to be used as a seasoning ingredient in becek (opor/gulai) dishes.	✓	✓	
24.	Zingiberaceae	Laos	<i>Alpinia galanga</i> (L.) Willd.	Rhizomes	Foodstuff: pounded in a mortar to be used as a seasoning ingredient in becek (opor/gulai) dishes.	✓	✓	
25.	Clusiaceae	Manggis	<i>Garcinia mangostana</i> L.	Fruit	Foodstuff: used as a dish		✓	✓
26.	Rosaceae	Mawar	<i>Rosa rubiginosa</i> L.	Flowers	Offerings: in general, there are 3 materials used as the main elements of the "kembang telon" offerings, namely white cempaka flowers, rose flowers, and kenanga flowers.	✓		
27.	Gnetaceae	Mlinjo / Belinjo	<i>Gnetum gnemon</i> L.	Leaves	Foodstuff: processed as one of the dishes as a complement to side dishes			
				Fruit	Foodstuff: processed as one of the dishes as a complement to side dishes	✓	✓	
28.	Piperaceae	Mrico	<i>Piper nigrum</i> L.	Seeds	Foodstuff: pounded in a mortar to be used as a seasoning ingredient in becek (opor/gulai) dishes.			✓
29.	Poaceae	Pari	<i>Oryza sativa</i> L.	Seeds	Foodstuffs: processed to be used as ambeng rice			✓
30.	Arecaceae	Jambe / Jebug	<i>Areca catechu</i> L.	Seeds	Offerings: in general, there are 5 ingredients used as the main elements of the "menginang / nyirih" offerings, namely betel nut, betel lime (njet), areca nut, tobacco, and gambier.			✓
31.	Musaceae	Gedang Ambon	<i>Musa paradisiaca</i> var. <i>sapientum</i> (L) Kunt.	Stems	Equipment: pieces of banana tree trunk (pelepah) strung together to serve as a cooking stove when cooking becek (opor/gulai)	✓	✓	✓
				Leaves	Equipment: banana leaves are strung together to serve as a food			

				container called takir.			
			Fruit	Offerings: used as a complement to offerings Foodstuff: used as a dish			
32.	Musaceae	Gedang Emas	<i>Musa acuminata</i> Colla	Stems Equipment: pieces of banana tree trunk (pelepah) strung together to serve as a cooking stove when cooking becek (opor/gulai) Equipment: pieces of banana tree trunk (pelepah) are assembled to serve as a cooking stove when cooking lemengan	✓	✓	✓
			Leaves	Equipment: banana leaves are strung together to serve as a food container called takir.			
			Fruit	Offerings: used as a complement to offerings Foodstuff: used as a dish			
33.	Musaceae	Gedang Raja	<i>Musa acuminata</i> × <i>M balbisiana</i>	Stems Equipment: pieces of banana tree trunk (pelepah) strung together to serve as a cooking stove when cooking becek (opor/gulai) Equipment: pieces of banana tree trunk (pelepah) are assembled to serve as a cooking stove when cooking lemengan	✓	✓	✓
			Leaves	Equipment: banana leaves are strung together to serve as a food container called takir.			
			Fruit	Offerings: used as a complement to offerings Foodstuff: used as a dish			
34.	Myrtaceae	Manting	<i>Syzygium polyanthum</i> (Wight) Walp.	Leaves Foodstuffs: used as a seasoning ingredient for becek (opor/gulai) dishes		✓	
35.	Poaceae	Kamijara/Sere	<i>Cymbopogon citratus</i> (DC.) Stapf	Stems Foodstuffs: used as a seasoning ingredient for becek (opor/gulai) dishes	✓	✓	
36.	Piperaceae	Suruh	<i>Piper betle</i> L.	Leaves Offerings: in general, there are 5 ingredients used as the main elements of the "menginang / nyirih" offerings, namely betel nut, betel lime (njet), areca nut, tobacco, and gambier.	✓	✓	
37.	Theaceae	Teh	<i>Camellia sinensis</i> (L.) Kuntze	Leaves Foodstuffs: used as a drink			✓
38.	Solanaceae	Mbako	<i>Nicotiana tabacum</i> L.	Leaves Offerings: in general, there are 5 ingredients used as the main elements of the "menginang / nyirih" offerings, namely betel nut, betel lime (njet), areca nut, tobacco, and gambier.			✓
39.	Cucurbitaceae	Timun	<i>Cucumis sativus</i> L.	Fruit Foodstuff: used as a dish		✓	✓

Pe = Yard; K = Garden; S = Ricefield; H = Forest; Pa = Market

Classification of Plant Types Based on Plant Parts Used in Perlon Unggahan Rituals

Plants used in implementing the perlon unggahan ritual are grouped based on the plant parts used. Researchers found that 39 species of plants are used in the perlon unggahan ritual. The stem, leaves, flowers, fruit, seeds, tubers, rhizomes, and sap are some of the plant parts that are used. In the implementation of the perlon unggahan ritual, the most widely used plant part is fruit, with the highest percentage of 28%, followed by leaves (23%), stems (22%), seeds (12%), flowers (6%), rhizomes (4%), tubers (3%), and sap with the lowest percentage of 2%. The prominent use of fruits can be attributed to their versatility. Fruits are used across all utilization categories in the ritual, including as food, offerings, and ceremonial equipment. For instance, the krambil (*Cocos nucifera* L.), a key plant in the ritual, is utilized for its water, pulp, shell, and fiber, demonstrating its multifunctional role. These uses extend beyond sustenance, playing a significant part in the ritual's symbolic and functional aspects.

When compared to general Javanese traditions, the use of fruits in the Bonokeling perlon unggahan ritual shows both similarities and unique cultural adaptations. In broader Javanese practices, fruits like coconuts, bananas, and other produce are also integral components of rituals, primarily as offerings or part of ceremonial feasts (Mukarromah et al., 2024). However, the Bonokeling lineage incorporates fruits with distinct symbolic meanings tied to their ancestral and spiritual connections. For instance, the multifunctional use of coconuts in the perlon unggahan ritual underscores the deep integration of natural resources into their spiritual and cultural framework, which may differ in emphasis from other Javanese communities where fruits are predominantly associated with culinary or decorative purposes.

The Origin of the Plants Used in the Perlon Unggahan Rituals

Based on the interview results, it is known that the various types of plants used in the perlon unggahan ritual by the indigenous people of the Bonokeling lineage do not only come from Pekuncen Village but also from various other regions. This is due to the participation of the children of the Bonokeling lineage who live in other areas, such as Cilacap Regency, who also contribute various types of plants for the ritual. The informants interviewed were the children of the Bonokeling lineage from Pekuncen Village, so in this context, the origin of the plants specifically focused on the scope of the indigenous people of the Bonokeling lineage from Pekuncen Village only. Based on the information obtained during the interview, the researcher concluded that in the implementation of the perlon unggahan ritual, the origin of the most utilized plants was obtained from the garden with the highest percentage of 36%, followed by the yard (28%), market (17%), forest (12%), and rice field with the lowest percentage of 7%, as seen in Figure 2.

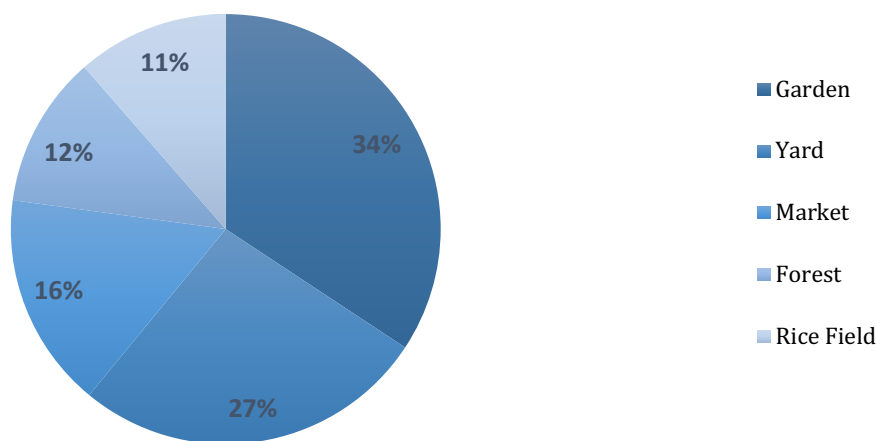


Figure 2. Diagram of The Origin of The Plants Used in The Perlon Unggahan Rituals.

Categories of Plant Utilization Used in Perlon Unggahan Ritual

In the perlon unggahan ritual, various plant parts, such as stems, leaves, flowers, fruits, seeds, tubers, rhizomes, and sap, have important roles that are symbolic, spiritual, aesthetic, and functional.

This utilization is based on the local knowledge possessed by the indigenous people of the Bonokeling lineage. Therefore, based on the researcher's findings, the use of plants in the perlon unggahan ritual by the indigenous people of the Bonokeling lineage is grouped into three main categories, namely food, offerings, and equipment.

The utilization of plants as food in rituals refers to plants that are used as ingredients for making food or drinks (dishes) in the performance of rituals, as seen in [Figure 3](#). These plants serve as vegetables, drinks, edible fruit, seasonings, and staple foods (Sulistiyowati et al., 2022).

This statement is in line with the research results of Sudiana (2018), which state that in the tumpek wariga ceremony, several varieties of plants act as food consumed during the lungsuran procession. After performing prayers, the food that has been offered will be lungsur or requested again and will be distributed to family members and neighbors to enjoy.

The Bonokeling tradition in the perlon unggahan ritual is different from other Javanese traditions because it focuses on using plants as food to bring people together, keep culture alive, and show spiritual gratitude. Unlike the tumpek wariga ceremony, which emphasizes honoring plants for their blessings, perlon unggahan redistributes plant-based foods, prepared from local biodiversity, among family and neighbors to symbolize gratitude and social harmony. This ritual also differs from selamatan traditions by prioritizing seasonal and indigenous plants, showcasing environmental awareness. Through its focus on shared meals and traditional practices, the Bonokeling ritual exemplifies a harmonious blend of cultural heritage and ecological stewardship.

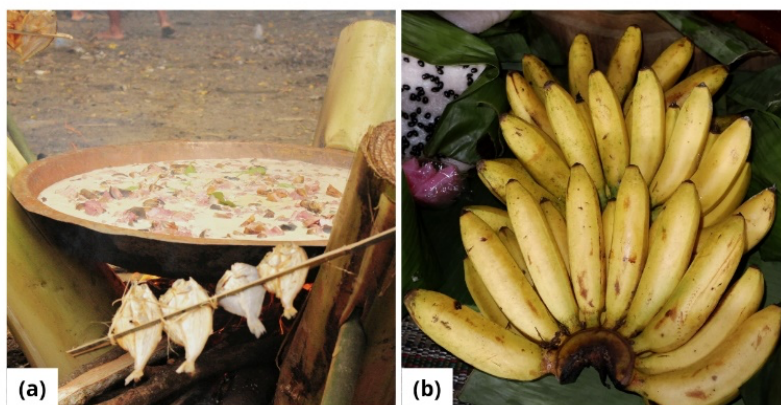


Figure 3. Utilization of Plants as Food (a) Various Spices are Used as Seasoning Ingredients in Becek (Opor/Gulai) Dishes; (b) Bananas Are Used as a Dish.

The utilization of plants as offerings in rituals refers to the use of plants as offerings in the performance of rituals. Plant parts such as roots, leaves, stems, flowers, fruits, tubers, rhizomes, and so on are often used in a series of offerings that are believed to have spiritual and symbolic meanings, as seen in [Figure 4](#). This statement is supported by the results of research by Ristiani et al. (2024), which states that offerings have certain symbolic meanings and serve as a medium to get closer to God Almighty. Offerings function as a form of expression of gratitude and are an effort so that the ritual procession runs smoothly. The study revealed that plants used as offerings in the earth alms tradition include bananas, telon flowers, incense, and others.

In the perlon unggahan ritual, the Bonokeling tradition uses plants as gifts to show spiritual devotion and gratitude, highlighting the area's biodiversity and cultural values. While like the earth alms tradition, where offerings like bananas and telon flowers have symbolic meanings and are believed to ensure the smoothness of rituals, Bonokeling's sacrifices also highlight the close relationship between humans and their natural surroundings. Plant parts such as roots, leaves, fruits, and flowers are carefully selected not only for their spiritual significance but also for their connection to the community's environment and heritage. The Bonokeling tradition is different from other Javanese rituals because it uses plants that are important to the area and traditional symbols. This highlights tradition's role in protecting cultural identity and ecological harmony.



Figure 4. Utilization of Plants as Offerings (a) Young Krambil is Used as a Complement to Offerings; (b) Menyan is Used as a Complement to Offerings.

As shown in [Figure 5](#), the use of plants as equipment in rituals means that plants are used to make different tools that are needed for rituals, tools that are either decorative (aesthetic) or useful. This statement is supported by the results of research by Pertiwi et al. (2022), which states that young krambil leaves (*Cocos nucifera* L.) can be used as a material for making kembar mayang, which are coconut leaves decorated with flowers and banana stems that stand as witnesses to events and represent the change from being single to married in traditional Javanese ceremonies. In addition, bambu apus stems (*Gigantochloa apus* (Schult. & Schult. f.) Kurz) can also be used to make kapara (nyiru) in the Tolaki Mekongga tribe's mosehe wonua traditional feast ritual in Kolaka Regency (Mariati et al., 2021).

The Bonokeling tradition in the Perlon Unggahan ritual showcases a distinctive use of plants as equipment, combining functionality and cultural symbolism. However, Bonokeling's uniqueness lies in its emphasis on locally available plants and traditional craftsmanship, symbolizing harmony between humans and nature while preserving ancestral knowledge. This distinct approach underscores the ritual's role in sustaining both environmental and cultural heritage, setting it apart from other Javanese practices.

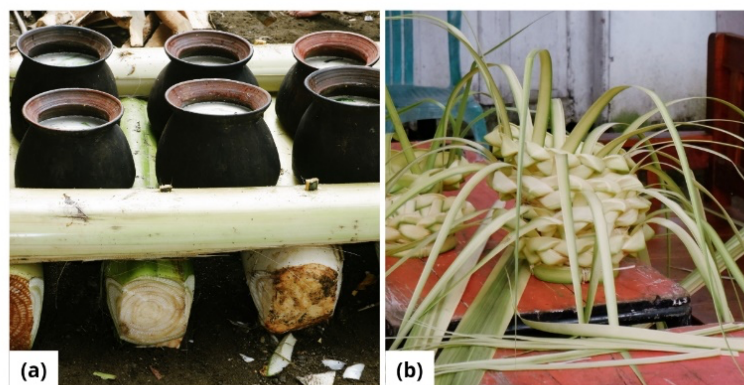


Figure 5. Utilisation of Plants as Equipment (a) A Stove for Cooking Becek (Opor/Gulai) Made from Banana Stems (Pelepah); (b) A Food Container Called Sleman Made from Young Coconut Leaves (Janur).

Symbolic Meanings of Plants Used in Perlon Unggahan Rituals

Based on their local knowledge, each ethnic group believes that plants have symbolic meanings reflected in their utilization. These symbolic meanings reflect the perceptions, beliefs, and cultural values that the indigenous people of the Bonokeling lineage have about these plants. In the implementation of rituals, plants have a central role as a key element that brings meaning and spiritual power to every step (Kholifah et al., 2020). This view is in line with the researcher's findings based on

the results of interviews. This study showed that the native Bonokeling people use different kinds of plants in the perlon unggahan ritual. Plants are the main component that completes the implementation of this tradition. Each type of plant has a deep symbolic meaning and function, reflecting the cultural and spiritual values of the Bonokeling indigenous people related to the cycle of life, death, and human relationships with nature and God Almighty.

For example, krambil (*Cocos nucifera* L.) symbolizes the wholeness of life and purity, with its water often representing cleansing and renewal, reflecting a spiritual rebirth. Gedang ambon (*Musa paradisiaca* var. *sapientum* (L) Kunt.) represents fertility and prosperity, often used to express hope for abundance in life and harmony in relationships. Pring (*Gigantochloa apus* (Schult.f.) Kurz ex Munro) reflects resilience and flexibility, symbolizing strength in facing life's challenges. Moreover, jati (*Tectona grandis* L. f.) embodies durability and permanence, aligning with beliefs about the enduring connection between generations. Flowers such as the kecombrang abang (*Etlingera elatior* (Jack) R.M.Sm.) symbolize beauty and transience, reflecting the impermanence of life and the need to appreciate its fleeting moments. These plants and their parts carry meanings deeply intertwined with the Bonokeling community's understanding of existence and spiritual connections, emphasizing harmony with nature and reverence for life's sacred cycles.

When compared to other Javanese rituals, there are both similarities and unique aspects of the Bonokeling tradition. For instance, in the Javanese slametan ceremony, krambil is also utilized as a symbol of purity and spiritual connection (Syam, 2017), while gedang often represents fertility and hope for prosperity (Iskandar et al., 2018), like their use in Bonokeling rituals. However, the Bonokeling community places distinct emphasis on specific combinations of plants and their alignment with life's cycles and spiritual beliefs, underscoring their unique cultural identity. This nuanced integration of plant symbolism highlights both the shared heritage with broader Javanese traditions and the distinctive spiritual expressions that define the Bonokeling lineage.

Use Value of Plant Species Used in Perlon Unggahan Rituals

Based on the results of interviews and calculations of species use value analysis, the plant species used in the upload perlon ritual have the highest use value of 0.73, namely krambil (*Cocos nucifera* L.). Then, the second highest use value of 0.45 consists of 3 species, namely gedang ambon (*Musa paradisiaca* var. *sapientum* (L) Kunt.), gedang emas (*Musa acuminata* Colla), and gedang raja (*Musa acuminata* × *M balbisiana*). Furthermore, the third highest use value of 0.36 consisted of 1 species, namely bambu apus (*Gigantochloa apus* (Schult. & Schult. f.) Kurz). Meanwhile, the fourth highest use value of 0.18 consisted of 4 species, namely gambir (*Uncaria gambir* (Hunter) Roxb.), jati (*Tectona grandis* L. f.), kecombrang abang (*Etlingera elatior* (Jack) R. M. Sm.), and melinjo (*Gnetum gnemon* L.). While the lowest use value of 0.09 consists of 30 species.

The variation in SUV highlights the diverse roles of plant species in the perlon unggahan ritual. Plants with high SUV values, such as krambil and gedang, are integral due to their multifunctionality and cultural significance. For instance, krambil symbolizes prosperity and is used in nearly every stage of the ritual, while gedang are central to offerings and food preparation. The predominance of plants with low SUV (30 species out of 39) indicates that the ritual also incorporates species with more specialized or symbolic roles. For example, kecombrang abang (*Etlingera elatior* (Jack) R. M. Sm.) is used for its aromatic properties in specific dishes, and melinjo (*Gnetum gnemon* L.) serves as an ingredient in traditional food. This contrast underscores a hierarchical utility, where plants with high SUV provide essential support to the ritual's practical and symbolic elements, while those with low SUV enrich it through specialized or aesthetic contributions.

The disparity in SUV values can also be linked to availability and cultural preferences. Plants with high SUVs are often abundant and versatile, making them indispensable. Meanwhile, plants with lower SUV may be less accessible or play niche roles. This finding aligns with research by Iskandaret al. (2017), which highlights that the frequency and multifunctionality of plant use are key determinants of their perceived importance in rituals. Therefore, it is important to give full attention to the management, effective utilization, and adequate local development planning of plants used (Zenderland et al., 2019). This is so that these plants can continue to make a meaningful contribution to the indigenous people of the Bonokeling lineage in Pekuncen Village and its surroundings.

CONCLUSION

The Bonokeling lineage's indigenous people use 39 plant species, classified into 22 families, in the perlon unggahan ritual. The most widely used plant family is Zingiberaceae, with the highest percentage of utilization at 12.8%. The most utilized plant part is the fruit, with the highest percentage of 28%, followed by leaves (23%), stems (22%), seeds (12%), flowers (6%), rhizomes (4%), tubers (3%), and sap with the lowest percentage of 2%. People gather these plants from a variety of locations, including yards, gardens, rice fields, forests, and markets. The perlon unggahan ritual groups the utilization of plants into three main categories: food, offerings, and equipment. The use of various plant parts not only serves as decorative or functional elements but also has a deeply symbolic and spiritual role related to the cycle of life, death, and human relationships with nature and God Almighty. Krambil (*Cocos nucifera* L.) has the highest SUV of 0.73, which indicates how important this plant is in the performance of rituals.

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