

Inventory of Medicinal Plants for Male and Female Reproductive Health by Ethnic Javanese and Ethnic Dayak Seberuang in Balai Harapan Village, Tempunak District, Sintang Regency

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ABSTRACT

Introduction: Knowledge of the use of plants as medicine is one of the local wisdom of the Javanese and Dayak ethnic communities of Seberuang, Balai Harapan Village, which has been passed down from generation to generation by their ancestors. This research aims to inventory plants that have medicinal properties for male and female reproductive health which are used by the people of Balai Harapan Village, especially the Javanese and Dayak Seberuang ethnic groups. **Methods:** This research used a triangulation technique which is a combination of interviews, observation, and documentation of plant types for male and female reproductive health. The data obtained in this research analyzed and presented narratively for each plant and accompanied by pictures and tables. **Results:** There are 26 types of medicinal plants used by the Javanese and Dayak Seberuang ethnic groups to support reproductive health. **Conclusion:** The plants used as medicine for male and female reproductive health by the Javanese and Dayak Seberuang ethnic groups in Balai Harapan Village come from several families, namely Zingiberaceae, Asteraceae, Poaceae, Lamiaceae, Fabaceae, Polypodiaceae, Rubiaceae, Caricaceae, Melastomataceae, Gleicheniaceae, Dilleniaceae, Phyllanthaceae, Blechnaceae, Schizaeaceae, Piperaceae, Moraceae, and Asparagaceae. The most common types of plants used come from the Zingiberaceae family.

Keywords: Local wisdom; Medicinal plants; Reproduction health.

INTRODUCTION

Indonesia is a country that has high biodiversity, so it is known as a mega-biodiversity country.¹⁻³ Indonesia has the third-largest tropical rain forest after Africa and Brazil.⁴ Kalimantan Island is one of the areas in Indonesia with quite extensive forests.⁵ One of the diversity that can be found in the forests of Kalimantan is medicinal plants.^{6,7} Medicinal plants are a storehouse of chemicals that have many benefits, one of which is as a traditional medicine for various diseases and increasing body immunity.^{8,9} Using plants as medicine is considered safer than using synthetic chemical drugs.^{9,10} Ethnographically, Indonesian society consists of various ethnic groups, so it does not rule out the possibility of differences in the use of plants as traditional medicine.^{11,12}

Indonesian people have the habit of using plants as traditional medicine, both people on Kalimantan Island and outside Kalimantan Island. Several previous studies have been carried out regarding the use of plants as medicine on several islands in Indonesia, including research on the island of Kalimantan conducted¹³⁻¹⁷, then, previous research on the island of Sumatra was conducted.¹⁸⁻²¹ One of the provinces on Kalimantan Island is West Kalimantan. There are two cities in West Kalimantan, namely Pontianak City and Singkawang City, and consist of twelve districts namely Kubu Raya, North Kayong, Ketapang, Mempawah, Landak, Sanggau, Sekadau, Sintang, Melawi, Kapuas Hulu, Bengkayang, and Sambas.²² Tempunak District is one of the many sub-

districts in Sintang Regency. Tempunak District consists of twenty-six villages and one of them is Balai Harapan Village. There are three hamlets in Balai Harapan Village with a total population of 1,481 people or 467 families with an area of 3,384 km². Balai Harapan Village also has ethnic diversity, including Dayak, Javanese, Sasak, Sundanese, Malay, Madurese, and Batak ethnic groups. However, the majority of the residents of Balai Harapan Village are ethnic Javanese, numbering 654 people, and Dayak Seberuang people, numbering 559 people.

Based on the results of interviews with the people of Balai Harapan Village, information obtained that the Javanese are ethnic immigrants who have long migrated to Balai Harapan Village, while the Dayak Seberuang ethnic are native residents of Balai Harapan Village. The Javanese ethnic group has been used medicinal plants since they were in their area of origin, namely Java Island. Until now, the people in Balai Harapan Village still maintain their local wisdom, both from the Javanese and Dayak Seberuang ethnic groups, which have been passed down by their respective ancestors. Ethnic Javanese still maintain their local wisdom in the form of traditional ceremonial activities, such as *tingkeban* (seven months of pregnancy), *sadran* (grave pilgrimage), *tedak siden* (lowering the ground for the baby), and *temu manten* (bringing the bride and groom together during the wedding procession). The Dayak Seberuang ethnic group also usually performs traditional rituals in the form of ceremonies such as rejecting reinforcements, *beuma* (farming), *nugal* (planting rice), *mabau* (pulling grass), *ngetam* (harvesting rice), dances performed before and after

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planting rice, and *gawai* (party). However, the two ethnic groups have differences in local wisdom inherited from their ancestors. However, they have the same local wisdom, one of which is the use of plants as traditional medicine.

The use of plants as traditional medicine by each ethnic group also varies, both in terms of the types of plants used and the processed methods according to the disease. Until now, the people of Balai Harapan Village, especially the Javanese and Dayak Seberuang ethnic groups, still maintain local wisdom, namely the use of plants as medicine which has been passed down from generation to generation since ancient times. In its use, the people of Balai Harapan Village process plants as traditional medicine independently at home. However, it is not uncommon for people to come to traditional healers for treatment, because they are thought to better understand the use of plants as medicine according to the disease they are suffering from. In this way, local wisdom emerges in the form of culture in the use of the values and properties of plants as traditional medicine.²³⁻²⁶

In traditional medicine, each ethnicity can treat various diseases. As a result of interviews conducted with traditional healers from the Javanese and Dayak Seberuang ethnic groups, Balai Harapan Village, it is known that diseases that usually still use plants as medicine include fever, digestive disorders, skin diseases such as snake pox, treatment of broken bones, post-natal care for mothers, childbirth, and respiratory problems. Furthermore, the Javanese and Dayak Seberuang ethnic groups can treat several reproductive health disorders, both men and women. Reproductive health is a collection of methods, techniques, and services that support reproductive health and well-being through preventing and resolving reproductive health problems related to sexual activity, life status, and individual relationships in all aspects

related to the reproductive system, its functions, and processes.^{27,28} Thus, reproductive health is not just about being free from disease, but rather the process a person carries out to be able to have a safe and healthy sexual life.²⁹⁻³¹

Currently, the knowledge of the Javanese and Dayak Seberuang ethnic of Balai Harapan Village regarding plants with medicinal properties, especially for the reproductive health of men and women, is only passed down by their ancestors orally from one generation to the next and this information has not been recorded. Research regarding the inventory of medicinal plants for reproductive health used by the Javanese and Dayak Seberuang ethnic groups in Balai Harapan Village has also never been carried out. This causes a lack of public knowledge regarding medicinal plants for reproductive health and over time this knowledge may be lost because it is not properly documented. Thus, it is necessary to carry out inventory activities of medicinal plants, especially for male and female reproductive health in Balai Harapan Village so that the local wisdom found in the village is maintained and can be preserved in the next generation.

MATERIALS AND METHODS

This research was conducted in Balai Harapan Village, Tempunak District, Sintang Regency, West Kalimantan in August-September 2023. Based on its location, Balai Harapan Village has borders with other areas such as the northern part borders with Tempunak Kapuas, the eastern part borders with Nanga Tempunak, to the south it borders Suka Jaya, and to the west it borders Tanjung Prada (Figure 1). Balai Harapan Village has a population of 1,481 people or 467 families with an area of 3,384 km² and there are three hamlets, namely Trimulya Hamlet, Barak Baru Hamlet, and Harapan Jaya Hamlet.

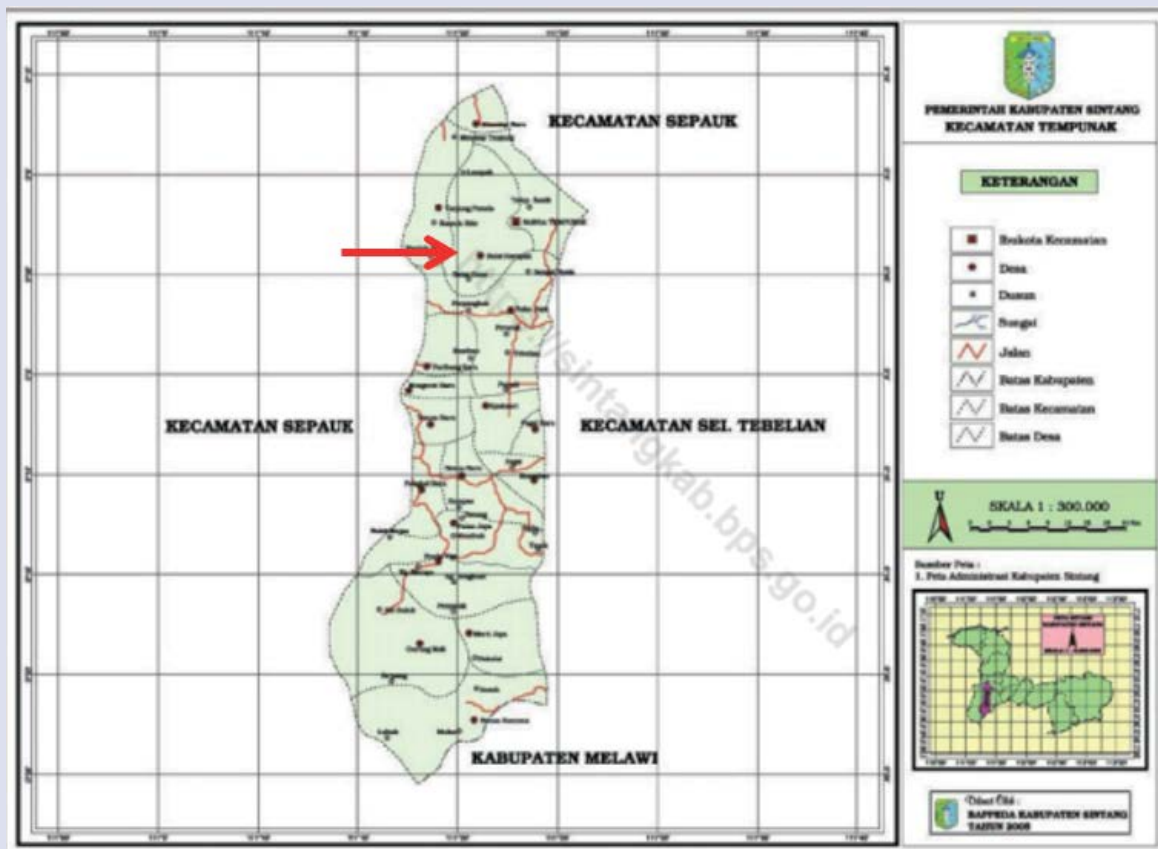


Figure 1. Map of Tempunak District (Source: <https://sintangkab.bps.go.id/>)

→ : Balai Harapan Village.

This research used qualitative research with triangulation techniques which are a combination of interview, observation, and documentation techniques.³² Data analysis in this research was carried out during data collection and after data collection was completed. Data analysis was carried out on the interviewees' answers until the desired data was obtained by the objectives of this research. There are four stages in the research carried out, namely collection and analysis, taking plant samples, making a herbarium, and identification. The first stage is data collection and analysis with four activities, namely data collection, data reduction, data presentation, and conclusions or data verification. Data collection activities were carried out by field observation using triangulation techniques. The activity began with determining informants using purposive sampling techniques, the number of informants were two traditional healers who came from different ethnicities, namely Javanese and Seberuang Dayak ethnicities. This aims to ensure that researchers obtain information that varies according to the characteristics of each traditional healer. The interviews conducted in this research used a structured technique that contained information about types of plants, benefits of plants, parts used, processing methods, and rules for using traditional medicines using interview sheets, then everything seen and heard is recorded. After that, field observations and plant documentation were carried out using a camera. The data reduction activity carried out is to summarize or sort out the important things that have been obtained during data collection. Next, data presentation carried out by presenting the data in narrative form accompanied by pictures and tables containing the results of the interview. The final activity was making conclusions that are supported by valid evidence from research. The second stage was taking plants that are efficacious as medicine for reproductive health based on the results of interviews between researchers and traditional healers regarding the types of plants. The third stage was making a dry herbarium on the plants that have been taken. The fourth stage was herbarium identification at the Biology Laboratory, Faculty of Mathematics and Natural Sciences, Tanjungpura University Pontianak with letter number 182/A/LB/FMIPA/UNTAN/2023.

RESULTS

Based on the results of interviews conducted in Balai Harapan Village, Tempunak District, Sintang Regency, West Kalimantan, 26 plants were found that have medicinal properties for reproductive health (Table 1). The results of plant documentation that have been obtained based on interviews and field observations with informants are presented in Figure 2. The plants used as medicine for male and female reproductive health by the Javanese and Dayak Seberuang ethnic groups in Balai Harapan Village come from several families, namely Zingiberaceae, Asteraceae, Poaceae, Lamiaceae, Fabaceae, Polypodiaceae, Rubiaceae, Caricaceae, Melastomataceae, Gleicheniaceae, Dilleniaceae, Phyllanthaceae, Blechnaceae, Schizaeaceae, Piperaceae, Moraceae, and Asparagaceae. The most common types of plants used come from the Zingiberaceae family. The Using tribe of Banyuwangi Regency also showed that the Zingiberaceae family is a family that is widely used as medicine for women's reproductive health.²⁵

Based on research results, plant organs those can be used to support reproductive health by the Javanese and Dayak Seberuang ethnic groups include fruit, flowers, leaves, stems, roots, and rhizomes. However, the part of the plant that is often used as medicine for male and female reproductive health is the leaves. Leaves are the plant organs most commonly used as medicinal materials for reproductive health by the community in Kuantan District, South Central East Regency¹⁹ and female reproductive health by the community in Kayu Baong Pekawai Hamlet, Sayan District, Melawi Regency.¹³

Based on the results of this research, the processed of plants into medicine by the people of Balai Harapan Village is quite varied, such as

boil and drink the water, cook it into vegetables, mash it then sticking it on, and consume it directly. Most of the plants in this study were processed by boiled them and then drink that water. Simple processing of plants by boiling it so they can be used directly in treatment.¹⁴ People believe that processed plants into medicine by boiling can kill germs in plants, is safer, and can contain more compounds in plants.¹⁵

DISCUSSION

Plants used to support male and female reproductive health by the Javanese and Dayak Seberuang ethnic groups in Balai Harapan Village, Tempunak District, Sintang Regency contain various metabolite compounds that are useful for other treatments. Based on research conducted, the leaves of *telusuh empeliau* (*Schizae dictoma* (L.) Sm) are used by the Seberuang Dayak ethnic group in Balai Harapan Village as a medicine to treat infertility or sterility. So far, no research has been found regarding the content of metabolite compounds contained in *telusuh empeliau*. *Telusuh empeliau* roots have benefits as a medicine to treat coughs and sore throats.¹⁶

The rhizome of *kunyit putih* (*Curcuma zedoaria* (Cristm.) Roscoe) is used by the Javanese ethnic group in Balai Harapan Village as a medicine to help reduce pain during menstruation. *Kunyit putih* rhizomes contain metabolite compounds including flavonoids, steroids, tannins, and saponins.³³ *Kunyit putih* rhizome has other potential, namely as an antibacterial and antidiabetic.³⁴

The stem of *tebu hitam* (*Saccharum officinarum* L) is a *tebu* that almost the same as *tebu kuning*. However, *tebu hitam* has different stem and leaf colors from *tebu kuning*. *Tebu hitam* stalks are usually used by the Seberuang Dayak ethnic group in Balai Harapan Village to treat erectile dysfunction in men. *Tebu hitam* stems contain metabolite compounds including phenolics, flavonoids, tannins, alkaloids, saponins, steroids, and triterpenoids.³⁵ *Tebu hitam* stems have other potential, namely as antioxidants and antibacterials.³⁶

The leaves of *Terntang manu'* (*Cassia* sp.) used by the Dayak Seberuang ethnic group in Balai Harapan Village as a medicine to treat infertility or sterility. So far, no research has been found regarding the content of metabolite compounds contained in *terntang manu'*. However, *terntang manu'* included in the genus *Cassia* which has other species, one of them is the *ketepeng cina* (*Cassia alata* L.). The use of the *ketepeng cina* plant can be used as a medicine for canker sores and to treat bad breath.³⁷

The leaves and tubers of *penekat* (*Brachypodium sylvaticum* (Huds.) P.Beauv) used by the Dayak Seberuang ethnic group in Balai Harapan Village as a medicine to treat infertility or sterility. So far, there is no research has been found regarding the content of metabolite compounds contained in *penekat*. *Penekat* is used as a traditional medicine for cut wounds.⁷

The leaves of *pengelas buluh* (*Mussaenda frondosa* L.) used by the Dayak Seberuang ethnic group in Balai Harapan Village to treat several reproductive health disorders such as menstrual disorders, vaginal discharge, and infertility or sterility. *Pengelas buluh* leaves contain metabolite compounds including flavonoids, saponins, glycosides, sugars, steroids, phenols, and proteins which have the potential to act as antimicrobials and antifungals.³⁸

The rhizome of *lengkuas* (*Alpinia galanga* (L.) Willd.) used by the Seberuang Dayak ethnic group as a medicine to treat erectile dysfunction. The rhizomes of *lengkuas* contain metabolite compounds including flavonoids, alkaloids, saponins, and phenols which have the potential to be antibacterial³⁹ and anti-inflammatory.⁴⁰

The leaves of *ati-ati* (*Coleus scutellarioides* (L.) Benth) used by ethnic Javanese in Balai Harapan Village as a medicine to increase female

Table 1. Species of plants used by the Javanese and Dayak Seberuang ethnic groups in Balai Harapan Village as medicine for reproductive health.

NO	LOCAL NAME	SCIENTIFIC NAME	BENEFIT	PART USED	PROCESSING METHOD	HOW TO USE
1	<i>Telusuh empeliau</i>	<i>Schizae dictoma</i> (L.) Sm	Treat infertility	Leaves	Take enough <i>telusuh empeliau</i> leaves, then the <i>telusuh empeliau</i> leaves can be processed by boiled it	Boiled water from <i>telusuh empeliau</i> is consumed 3 times a day by men and women
2	<i>Kunyit putih</i>	<i>Curcuma zedoaria</i> (Cristm.) Roscoe	Reduces menstrual pain	Rhizome	Take enough <i>temu putih</i> rhizomes, wash them clean and then they can be processed by boiling or making herbal medicine	Boiled water and herbal medicine are consumed twice a day
3	<i>Tebu hitam</i>	<i>Saccharum officinarum</i> L	Treat erectile dysfunction	Stem	Take enough <i>tebu hitam</i> stem, then cut the <i>tebu hitam</i> stem and peel them and extract the <i>tebu hitam</i> juice	<i>Tebu hitam</i> juice is consumed once every 2 days
4	<i>Terntang Manu'</i>	<i>Cassia</i> sp.	Treat infertility	Leaves	Take enough <i>terntang manu'</i> leaves, then the <i>terntang manu'</i> leaves can be processed by crumbling or mashing them	Crushed or mashed leaves of the <i>terntang manu'</i> plant can be used by rubbing them on the stomachs of women and men once every 3 days.
5	<i>Penekat</i>	<i>Brachypodium sylvaticum</i> (Huds.) P.Beauv	Treat infertility	Leaves and tubers	The leaves and tubers of the <i>penekat</i> plant are taken, then the leaves and tubers of the <i>penekat</i> can be processed by boiling them together	Boiled water from <i>penekat</i> plants can be consumed 3 times a day
6	<i>Pengelas buluh</i>	<i>Mussaenda frondosa</i> L.	Treats vaginal discharge, infertility and menstrual disorders	Leaves	Take 3-4 pieces of <i>pengelas buluh</i> leaves, then the <i>pengelas buluh</i> leaves can be processed by boiled it	Boiled water from <i>pengelas buluh</i> leaves can be consumed 3 times a day
7	<i>Lengkuas</i>	<i>Alpinia galanga</i> (L.) Willd.	Treat erectile dysfunction	Rhizomes	Take enough the rhizome of <i>lengkuas</i> , then wash it clean and boil it until it boils	Cooked water from the rhizomes of <i>lengkuas</i> is consumed once a day
8	<i>Ati-ati</i>	<i>Coleus scutellarioides</i> (L.) Benth	Increases female fertility	Leaves	Take 7-8 <i>ati-ati</i> leaves. The leaves that have been taken are then washed clean and boiled	Boiled water from <i>ati-ati</i> or iler leaves is consumed 3 times a day
9	<i>Paku miding</i>	<i>Stenochlaena palustris</i> (Burm. Fil) Bedd.	Facilitates breast milk	Stem and young leaves	Take enough <i>paku miding</i> stem and young leaves fern, then it can be processed by cooking it into vegetables	Consumed during breastfeeding
10	<i>Paku kijang</i>	<i>Platyserium bifurcatum</i> (Cav.) C.Chr.	Facilitates breast milk	Stem and young leaves	Take enough <i>paku kijang</i> stem and young leaves and process them by cooking them into vegetables	Consumed during breastfeeding
11	<i>Kedadai</i>	<i>Ficus hispida</i> L. fill.	Facilitates breast milk	Leaves	Take enough young <i>kedadai</i> leaves, then cook them as a vegetable	Consumed during breastfeeding
12	<i>Sirih</i>	<i>Piper betle</i> Linn.	Tighten the female organs	Leaves	Take 5-7 <i>sirih</i> leaves, then the <i>sirih</i> can be processed by boiled it and used to wash the female organs	Boiled water from <i>sirih</i> leaves is used 2 times a day
13	<i>Sembung</i>	<i>Blumea balsamifera</i> (L.) DC.	Postnatal care	Leaves	Take 3-6 pieces of <i>sembung</i> leaves, then wash the <i>sembung</i> leaves and can be processed by boiled it	Boiled water from <i>sembung</i> leaves can be consumed twice a day
14	<i>Karimunting</i>	<i>Melastoma malabathricum</i> L.	Treat erectile dysfunction	Roots and leaves	Take 10-20 <i>karimunting</i> leaves and enough <i>karimunting</i> roots. Then the leaves and roots of <i>karimunting</i> can be processed by boiled it	Boiled water from <i>karimunting</i> leaves and roots is consumed 3 times a day
15	<i>Cangkok</i>	<i>Breynia androgyna</i> (L.) Chakrab. & N.P.Balacr.	Facilitates breast milk	Leaves	Take enough <i>cangkok</i> leaf shoots, then cook them as a vegetable	Consumed during breastfeeding
16	<i>Tapak liman</i>	<i>Elephantopus scaber</i> L.	Treat erectile dysfunction	Roots and leaves	Take enough leaves and roots of <i>tapak liman</i> , then the leaves and roots of <i>tapak liman</i> can be processed by boiled it	<i>Tapak Liman</i> boiled water can be consumed once a day
17	<i>Kumis kucing</i>	<i>Orthosiphon aristatus</i> (Blume)Miq.	Tighten the female organs	Roots, leaves, flower	Take enough roots, leaves and flowers of <i>kumis kucing</i> , then they can be processed by boiled it	<i>Kumis kucing</i> decoction can be consumed once a day
18	<i>Temu putih</i>	<i>Curcuma zedoaria</i> (Cristm.) Roscoe	Reduces menstrual pain	Rhizome	Take enough <i>temu putih</i> rhizome, then <i>temu putih</i> rhizomes can be processed by grating or boiling to get the juice	<i>Temu putih</i> water that has been grated or boiled is then drunk 2 times a day
19	<i>Sabang merah</i>	<i>Cordyline fruticosa</i> (L.) A.Chev.	Treat erectile dysfunction and menstrual disorders	Roots	Take enough <i>sabang merah</i> roots, then cleaned and the <i>sabang merah</i> roots can be processed by boiled it	<i>Sabang merah</i> root boiled water is consumed 3 times a day

20	<i>Kupu-kupu</i>	<i>Bauhinia variegata</i> L.	Treat erectile dysfunction	Leaves and flower	Take 5-10 <i>kupu-kupu</i> leaves and enough <i>kupu-kupu</i> flowers. Then the <i>kupu-kupu</i> leaves and flowers can be processed by boiling them together until they boil	Drink once a day
21	<i>Pepaya</i>	<i>Carica papaya</i> Linn.	Facilitates breast milk	Leaves	Take enough young <i>pepaya</i> leaves, then the <i>pepaya</i> leaves can be processed by cook them into vegetables	Consumed during breastfeeding
22	<i>Sambung nyowo</i>	<i>Gynura procumbens</i> (Lour.) Merr	Treat infertility	Leaves	Take 3-6 pieces of <i>sambung nyowo</i> leaves, then the splicing life leaves can be processed by boiling until boiling	<i>Sambung nyowo</i> boiled water can be consumed 2 times a day
23	<i>Paku resam</i>	<i>Dicranopteris linearis</i> (Burm.fil) Underw.	Facilitates childbirth	Roots	Take enough of the root of <i>paku resam</i> , then wash the <i>paku resam</i> nail root and boiled it	Boiled water from the roots of <i>paku resam</i> is consumed 2 times a day
24	<i>Simpor</i>	<i>Dillenia indica</i> Linn.	Facilitates breastmilk	Leaves	Take enough young <i>simpor</i> leaves, then <i>simpor</i> leaves can be processed by cooking them into vegetables mixed with <i>paku miding</i> and so on.	Consumed during breastfeeding
25	<i>Buah kaluk</i>	<i>Etlingera elatior</i> (Jack) S.M.Sm.	Facilitates breastmilk	Fruits	Consumed directly	<i>Kaluk</i> fruit is consumed once a day
26	<i>Paku kubok</i>	<i>Nephrolepis bisserata</i>	Facilitates breast milk	Stem and young leaves	Take enough young <i>paku kubok</i> , then it can be processed by cooking it into vegetables	Consumed during breastfeeding



Figure 2. Various plants that can support male and female reproductive health by Javanese and Dayak Seberuang ethnic groups in Balai Harapan Village: 1. *Telusuh empelieu* (*Schizae dictoma* (L.) Sm), 2. *Kunyit putih* (*Curcuma zedoaria* (Cristm.) Roscoe), 3. *Tebu hitam* (*Saccharum officinarum* L), 4. *Terntang Manu'* (*Cassia* sp.), 5. *Penekat* (*Brachypodium sylvaticum* (Huds.) P.Beauv), 6. *Pengelas buluh* (*Mussaenda frondosa* L.), 7. *Lengkuas* (*Alpinia galanga* (L.) Willd.), 8. *Ati-ati* (*Coleus scutellarioides* (L.) Benth), 9. *Paku miding* (*Stenochlaena palustris* (Burm. Fil) Bedd.), 10. *Paku kijang* (*Platynerium bifurcatum* (Cav.) C.Chr.), 11. *Kedadai* (*Ficus hispida* L. fill.), 12. *Sirih* (*Piper betle* Linn.), 13. *Sambung* (*Blumea balsamifera* (L.) DC.), 14. *Karimunting* (*Melastoma malabathricum* L.), 15. *Cangkok* (*Breynia androgyna* (L.) Chakrab. & N.P.Balakr.), 16. *Tapak liman* (*Elephantopus scaber* L), 17. *Kumis kucing* (*Orthosiphon aristatus* (Blume)Miq.), 18. *Temu putih* (*Curcuma zedoaria* (Cristm.) Roscoe), 19. *Sabang merah* (*Cordyline fruticosa* (L.) A.Chev.), 20. *Kupu-kupu* (*Bauhinia variegata* L.), 21. *Pepaya* (*Carica papaya* Linn.), 22. *Sambung nyowo* (*Gynura procumbens* (Lour.) Merr), 23. *Paku resam* (*Dicranopteris linearis* (Burm.fil) Underw.), 24. *Simpor* (*Dillenia indica* Linn.), 25. *Buah kaluk* (*Etlingera elatior* (Jack) S.M.Sm.), 26. *Paku kubok* (*Nephrolepis bisserata*).

fertility. *Ati-ati* leaves contain metabolite compounds including alkaloids, saponins, flavonoids, tannins, essential oils, phenols, fats, polyphenols, phytosterols, and calcium oxalate.⁴¹ *Ati-ati* leaves have other potential, namely as an antioxidant, antidiabetic, anti-inflammatory, immunomodulator, antihistamine, and anthelmintic.⁴²

The stem and young leaves of *paku miding* (*Stenochlaena palustris* (Burm. Fil) Bedd.) used by the Seberuang Dayak ethnic group, Balai Harapan Village, to help facilitate breastfeeding. *Paku miding* fern leaves contain metabolite compounds including phenolics, terpenes, and alkaloids.⁴³ *Paku miding* leaves have other potential, namely as anti-inflammatory, antimalarial, and antioxidant.⁴⁴

The stem and young leaves of *paku kijang* (*Platyserium bifurcatum* (Cav.) C.Chr.) used by the Seberuang Dayak ethnic group, Balai Harapan Village, to help facilitate breastfeeding. So far, no research has been found regarding the content of metabolite compounds in *paku kijang* leaves. However, *paku kijang* leaves have potential as a medicine to treat fever, boils, and fertilizer for pregnant women.⁴⁵

The leaves of *kedadai* (*Ficus hispida* L. fill.) used by the Seberuang Dayak ethnic group, Balai Harapan Village, to help facilitate breastfeeding. *Kedadai* leaves contain metabolite compounds including alkaloids, flavonoids, tannins, steroids, and triterpenoids which have the potential as antioxidants and anticancer.⁴⁶

The leaves of *sirih* (*Piper betle* Linn.) used by the Javanese ethnic group in Balai Harapan Village to tighten the female organs. *Sirih* leaves contain metabolite compounds including flavonoids, saponins, polyphenols, and essential oils.⁴⁷ *Sirih* leaves have another potential, namely as antithrush, anticough, antiseptic, and antibacterial.⁴⁷

The leaves of *sembung* (*Blumea balsamifera* (L.) DC.) used by ethnic Javanese in Balai Harapan Village for postnatal care. *Sembung* leaves contain metabolite compounds including alkaloids, flavonoids, tannins, and steroids/terpenoids.⁴⁸ *Sembung* leaves have other potential, namely as an antioxidant and antibacterial.⁴⁸ *Sembung* leaves also have the potential as an antihypertensive.⁴⁹

The roots and leaves of *karimunting* (*Melastoma malabathricum* L.) used by the Seberuang Dayak ethnic group, Balai Harapan Village, to treat erectile dysfunction. *Karimunting* leaves contain metabolite compounds including alkaloids, saponins, tannins, flavonoids, and steroids.⁵⁰ *Karimunting* leaves have other potential, namely as an antibacterial⁵¹ and antihyperglycemia.⁵²

The leaves of *cangkok* (*Breynia androgyna* (L.) Chakrab. & N.P.Balakr.) by ethnic Javanese from Balai Harapan Village to help facilitate breastfeeding. *Cangkok* leaves contain metabolite compounds including phenolics, tannins, flavonoids, saponins, triterpenoids, and alkaloids.⁵³ Apart from being used to increase breast milk production in breastfeeding mothers, *cangkok* leaves also have another potential, namely to reduce hair loss.⁵⁴

The roots and leaves of *tapak liman* (*Elephantopus scaber* L.) used by ethnic Javanese in Balai Harapan Village as a medicine to treat erectile dysfunction in men. *Tapak liman* leaves contain metabolite compounds including phenols, flavonoids, and saponins.⁵⁵ *Tapak liman* leaves have other potential, namely as an antioxidant, antibacterial, antiviral, and anti-inflammatory.⁵⁵

The roots, stem, and flower of *kumis kucing* (*Orthosiphon aristatus* (Blume) Miq.) used by the Javanese ethnic group in Balai Harapan Village to help tighten the female organs. The leaves of *kumis kucing* contain metabolite compounds including flavonoids, saponins, tannins, and essential oils.⁵⁶ *Kumis kucing* leaves have other potential, namely as an antibacterial⁵⁷ and antioxidant.⁵⁸

The rhizome of *temu putih* (*Curcuma zedoaria* (Cristm.) Roscoe) used by ethnic Javanese in Balai Harapan Village to help reduce menstrual

pain. *Temu putih* rhizomes contain metabolite compounds including polyphenols, flavonoids, saponins, and steroids/triterpenoids.⁵⁹ *Temu putih* rhizome has another potential, namely as an antimicrobial⁶⁰ and antioxidant.⁶¹

The roots of *sabang merah* (*Cordyline fruticosa* (L.) A.Chev.) used by the Seberuang Dayak ethnic group, Balai Harapan Village, to treat erectile dysfunction and also treat menstrual disorders. *Sabang merah* leaves contain metabolite compounds including saponins, flavonoids, polyphenols, alkaloids, steroids, and triterpenoids.⁶² *Sabang merah* leaves have another potential, namely as an antioxidant and antibacterial.⁶³

The leaves of *kupu-kupu* (*Bauhinia variegata* L.) used by ethnic Javanese in Balai Harapan Village as a medicine to treat erectile dysfunction. *Kupu-kupu* leaves contain metabolite compounds including flavonoids, tannins, and phenols.⁶⁴ *Kupu-kupu* leaves have the potential as antimicrobial, antidiabetic, anti-inflammatory, antipyretic, wound healing, antiepileptic, and antidepressant.⁶⁵

The leaves of *pepaya* (*Carica papaya* Linn.) used by ethnic Javanese in Balai Harapan Village to help facilitate breastfeeding. *Pepaya* leaves contain metabolite compounds including flavonoids, phenolics, steroids, alkaloids, terpenoids, phenolics, carotenoids, tannins, saponins, fatty acids, glycosides, glycosylates, and chlorophyll.⁶⁶ *Pepaya* leaves have another potential, namely as anticancer⁶⁶ and antibacterial.⁶⁷

The leaves of *sambung nyowo* (*Gynura procumbens* (Lour.) Merr) used by ethnic Javanese in Balai Harapan Village to overcome infertility. *Sambung nyowo* contains metabolite compounds including saponins, flavonoids, alkaloids, essential oils, and anticoagulants.⁶⁸ *Sambung nyowo* leaves have other potentials, namely as antihyperglycemia and antioxidants.⁶⁸ *Sambung nyowo* leaves also have the potential as anti-inflammatory, antihypertensive, antiproliferation, antibacterial, antidiabetic, anticancer, organ protection, and function improvement sexual.⁶⁹

The roots of *paku resam* (*Dicranopteris linearis* (Burm.fil) Underw.) used by the Seberuang Dayak ethnic group in Balai Harapan Village as a medicine to help facilitate childbirth. *Paku resam* has another potential, namely as an antibacterial because *paku resam* leaves contain metabolite compounds including alkaloids, flavonoids, phenolics, tannins, saponins, triterpenoids, and steroids.⁷⁰

The leaves of *simpur* (*Dillenia indica* Linn.) used by the Seberuang Dayak ethnic group, Balai Harapan Village, to help facilitate breastfeeding. *Simpur* leaves contain metabolite compounds including alkaloids, phenols, tannins, flavonoids, steroids, terpenoids, and saponins.⁷¹ Apart from the leaves which can be used to help facilitate breast milk, the roots of *simpur* have the potential to be anticancer, antibacterial, and antifungal.⁷²

The fruit of *kaluk* (*Etilingera elatior* (Jack) S.M.Sm.) used by the Seberuang Dayak ethnic group in Balai Harapan Village as a medicine to help facilitate breastfeeding. *Kaluk* leaves contain metabolite compounds including alkaloids, flavonoids, polyphenols, steroids, saponins, and essential oils.⁷³ *Kaluk* has other potential, namely as an antimicrobial, anticancer, larvicide, and repellent for leaves, flowers, fruit, stems, and rhizomes.⁷⁴

The leaves of *paku kubok* (*Nephrolepis bisserata*) are used by Dayak Seberuang ethnic group in Balai Harapan Village to facilitate breast milk. *Paku kubok* leaves contain metabolite compounds including alkaloids, phenolics, flavonoids, tannins, and triterpenoids.⁷⁵

CONCLUSION

There are 26 species of medicinal plants used by the Javanese and Dayak Seberuang ethnic groups in Balai Harapan Village,

Tempunak District, Sintang Regency as traditional medicines for male and female reproductive health. The plants used as medicine for male and female reproductive health by the Javanese and Dayak Seberuang ethnic groups in Balai Harapan Village come from several families, namely Zingiberaceae, Asteraceae, Poaceae, Lamiaceae, Fabaceae, Polypodiaceae, Rubiaceae, Caricaceae, Melastomataceae, Gleicheniaceae, Dilleniaceae, Phyllanthaceae, Blechnaceae, Schizaeaceae, Piperaceae, Moraceae, and Asparagaceae. The parts used are various, namely fruit, flowers, leaves, stems, roots, and rhizomes. It can be processed by boil and drink the water, cooked it into vegetables, mash it and stick it on, and consume it directly. However, the part that most widely used the leaves and the most common way of processed it is by boiling it in and then soaking it in the water. Further research is needed to determine the contents of each plant in this study as medicine for male and female reproductive health.

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CONFLICTS OF INTEREST

The authors declare no conflicts of interest.

REFERENCES

- Hadi UK, Takaoka H. The biodiversity of black flies (Diptera: Simuliidae) in Indonesia. *Acta Trop.* 2018; 185: 133-137.
- Bahar I, Veriyani AN. Keanekaragaman kupu-kupu superfamili Papilionoidea (Lepidoptera) di kawasan Taman Hutan Raya Lemo-Lemo Kelurahan Tanah Lemo. *J Celebes Biodiversitas.* 2021; 4(2): 31-35.
- Indrawan KP, Handayani D. Keanekaragaman jamur makroskopis di kawasan Hutan Mangrove Karang Sungai Pisang Kecamatan Teluk Kabung Kota Padang Sumatera Barat. *J Serambi Biol.* 2022; 7(1): 19-23.
- Maulana A, Suryanto P, Widiyatno, Faridah E, Suwignyo B. Dinamika suksesi vegetasi pada areal pasca perladangan berpindah Kalimantan Tengah. *J Ilmu Kehutan.* 2019; 13(2): 181-194.
- Nababan DS. Hambatan implementasi program *Tropical Forest Conservation ACT* (TFCA) di Kutai Barat. *J Ilmu Hub Int.* 2019; 7(3): 1189-1198.
- Nugroho AW. Review: Konservasi keanekaragaman hayati melalui tanaman obat dalam hutan di Indonesia dengan teknologi farmasi: potensi dan tantangan. *J Sains Kes.* 2017; 1(7): 377-383.
- Maryuni AE, Siallagan J, Agustini V, Adetyaningsih C. Pendataan dan penangkaran tanaman obat tradisional dari Hutan Isyo Hill Rhepang Muaf, Desa Nimbokrang, Kabupaten Jayapura. *J Pengabdian Papua.* 2020; 4(1): 16-20.
- Qamariah N, Mulyani E, Dewi N. Inventarisasi tumbuhan obat di Desa Pelangian Kecamatan Mentawa Baru Ketapang Kabupaten Kotawaringin Timur. *Borneo J Pharm.* 2018; 1(1): 1-10.
- Melviani, Rohama, Noval. Penggunaan tanaman sebagai obat pada masyarakat suku Banjar, Dayak, dan Bugis di Kalimantan Selatan. *J Surya Med.* 2022; 8(2): 171-177.
- Akmalia NNN, Maulidia SS. Potensi berbagai tumbuhan obat tradisional di Asia dengan aktivitas antiastma. *Indones Pharm Stud J.* 2020; 7(2): 42-57.
- Due R, Syamswisna, Marlina R. Etobotani tumbuhan obat suku Dayak Pesagan dan implementasinya dalam pembuatan *flashcard* biodiversitas. *Equat Educ Learn J.* 2014; 3(2): 1-15.
- Zumaidar, Saudah, Rasnovi S, Harnelly E. Tumbuhan sebagai obat tradisional pasca melahirkan oleh Suku Aceh di Kabupaten Pidie. *J Biol.* 2019; 12(2): 157-163.
- Ratnasari D, Kartikawati SM, Muflihati. Tumbuhan obat khusus kesehatan reproduksi wanita di Dusun Kayu Baong Desa Pekawai Kecamatan Sayan Kabupaten Melawi. *J Hutan Lestari.* 2017; 5(2): 499-507.
- Santoso EA, Jumari, Utami S. Inventory of medicinal plants for pregnant and postpartum women in *Dayak Tomun* of the Lopus Village Lamandau Regency of Central Kalimantan. *Biosaitifika.* 2019; 11(1): 25-31.
- Panjaitan RGP, Mitalia, Partasasmita R. Indigenous knowledge of the Karya Usaha Hamlet (Kubu Raya, West Kalimantan, Indonesia) on the processing and diversity of plants that enhance toddler's appetite. *Biodiversitas.* 2020; 21(9): 4284-4290.
- Hartini S. Keanekaragaman jenis tumbuhan paku (Pteridophyta) di kawasan Hutan Tumbang Manggu, Kecamatan Sanaman Mantikei, Kabupaten Katingan, Kalimantan Tengah. *Ekologia: J Ilm Ilmu Dasar dan Lingkung Hidup.* 2020; 20(1): 1-13.
- Panjaitan RGP, Titin, Yuliana YGS. Ethno-medicinal plants used for medication of jaundice by the Chinese, Dayak, and Malays Ethnic in West Kalimantan, Indonesia. *Phcog J.* 2021; 13(4): 916-923.
- Yassir M, Asnah. Pemanfaatan jenis tumbuhan obat tradisional di Desa Batu Hamparan Kabupaten Aceh Tenggara. *J Biotik.* 2018; 6(1): 17-34.
- Malo M, Sabuna CA, James N. Tumbuhan obat untuk kesehatan reproduksi di Kecamatan Kuantan Kabupaten TTS. *Med Farm Indones.* 2017; 12(2): 1233-1247.
- Lestari F, Susanti I. Eksplorasi proses pengolahan tumbuhan obat imunomodulator suku anak dalam Bendar Bengkulu. *Bioedukasi: J Pendidik Biol.* 2019; 10(2): 179-183.
- Ikhwan M, Syamsyurizal MD, Chatri M. Inventory of medicinal plants that have the potential to treat diabetes mellitus in Sijunjung District. *J Serambi Biol.* 2021; 6(2): 1-8.
- Badan Pusat Statistik Kalimantan Barat. Provinsi Kalimantan Barat dalam angka 2023. Kalimantan Barat: BPS Provinsi Kalimantan Barat; 2023.
- Nurrani L, Tabba S, Mokodompit HS. Kearifan lokal dalam pemanfaatan tumbuhan obat oleh masyarakat di sekitar Taman Nasional Aketajawe Lolobata, Provinsi Maluku Utara. *For Socio Econ Res J.* 2015; 12(3): 163-175.
- Susanti S, Sukaesih. Kearifan lokal Sunda dalam pemanfaatan tanaman berkhasiat obat masyarakat Cipatat Kabupaten Bandung Barat. *Wacana.* 2019; 16(2): 291-298.
- Azizah NN, Ardiansyah F, Nurcahyati N. Studi etnobotani dan upaya konservasi tanaman yang digunakan sebagai pengobatan tradisional perawatan wanita di suku Using Kabupaten Banyuwangi. *J Biosense.* 2019; 2(2): 31-45.
- Makani M, Billi J, Irawan Y. Penyuluhan tanaman obat tradisional berdasarkan kearifan lokal di Desa Kubu Kotawaringin Barat Kalimantan Tengah. *J Borneo Cendikia.* 2022; 1(2): 34-39.
- Ahmad M. Buku ajar kesehatan reproduksi. 1th ed. Bandung: Media Sains Indonesia; 2020.
- Muharrina CR, Yustendi D, Sarah S, Herika L, Ramadhan F. Kesehatan reproduksi. *J Pengabdian Masy Kebidanan.* 2023; 5(2): 26-29.
- Dida S, Lukman S, Sukarno, Herison F, Priyatna CC, Zaidan AR, et al. Pemetaan perilaku menggunakan media informasi dalam mengakses informasi kesehatan reproduksi di kalangan pelajar di Jawa Barat. *J Kel Berencana.* 2019; 4(2): 35-46.

30. Sekarayu SY, Nurwati N. Dampak pernikahan usia dini terhadap kesehatan reproduksi. *J Abdimas*. 2021; 2(1): 37-45.
31. Marfu'ah, Alwi MK, Mahmud NU. Hubungan pengetahuan, sikap dan orang tua tentang kesehatan reproduksi dengan perilaku seks pranikah. *Window Public Health J*. 2023; 4(4): 547-558.
32. Sugiyono. Metode penelitian pendidikan (kuantitatif, kualitatif, kombinasi, R&D dan penelitian pendidikan). 2th ed. Bandung: Alfabeta; 2019.
33. Lumbangtobi H, Sartini, Rahmiati. Uji aktivitas antibakteri ekstrak daun pepaya (*Carica papaya*) dan ekstrak kunyit putih (*Curcuma zedoaria*) terhadap *Escherichia coli* dan *Staphylococcus epidermidis*. *J Ilm Biol UMA*. 2022; 4(1): 18-26.
34. Wardhani FM, Ong GF, Virgoh L. Uji toksisitas akut ekstrak kunyit putih terhadap kadar gula darah dan kolesterol. *J Med Health Sci*. 2022; 9(3): 135-150.
35. Windiawati, Qodri UL. Analisis fitokimia dan penentuan kadar fenolik total pada ekstrak etanol tebu merah dan tebu hijau (*Saccharum officinarum* L.). *J Farm Tinctura*. 2023; 4(2): 91-102.
36. Wibawa PAH, Andila PS, LUGRAYASA N, Sajarwo W. Studio potensi tanaman tebu ireng (*Saccharum officinarum* L) sebagai antioksidan dan antibakteri. *J Biota*. 2021; 20(1): 57-67.
37. Malaka MH, Wahyuni, Hamid M, Hasanuddin D, Mawarni I. Pemanfaatan tumbuhan ketepeng china (*Cassia alata* L.) sebagai obat sariawan dan bau mulut. *Pharmauho: J Farm Sains Kesehat*. 2019; 5(1): 29-32.
38. Shanthi S, Radha R. Anti-microbial and phytochemical studies of *Mussaenda frondosa* Linn. leaves. *Phcog J*. 2020; 12(3): 630-635.
39. Ifandi S, Alfita IS. Analisis kualitatif fitokimia pada rimpang lengkuas putih (*Alpinia galangan* L.) sebagai antibakteri *Klebsiella Pneumonia*. *J Herb, Clin, and Pharm Sci*. 2023; 4(2): 11-17.
40. Chouni A, Paul S. A review on phytochemical and pharmacological potential of *Alpinia galanga*. *Phcog J*. 2017; 10(1): 9-15.
41. Junaedi F, Kosman R, Herwin. Identification of active chemical components of ethanol extract of painted nettle leaves (*Coleus Scutellarioides* L. Benth) against gastrointestinal infection bacteria using tlc-bioautography and agar diffusion method. *J Microbiol Sci*. 2023; 3(1): 1-12.
42. Novianti H, Susilawati Y. Review: Aktivitas farmakologi daun iler (*Plectranthus scutellarioides* (L.) R.Br.). *Farmaka: J Ilm Farm Indones*. 2017; 15(1): 146-152.
43. Nurmilatina. Analisis komposisi kimia daun kelakai (*Stenochlaena palustris* Bedd) dengan berbagai pelarut menggunakan GCMS. *J Ris Ind Has Hutan*. 2017; 9(1): 9-16.
44. Chai TT, Kwek MT, Ong HC, Wong FC. Water fraction of edible medicinal fern *Stenochlaena palustris* is a potent α -glucosidase inhibitor with concurrent antioxidant activity. *Food Chem*. 2015; 186: 26-31.
45. Zuraida A, Dalem AAGR, Joni M. Inventarisasi jenis-jenis tanaman hias introduksi di Desa Panglipuran, Kabupaten Bangli, Bali. *J Simbiosis*. 2018; 6(1): 25-29.
46. Lushaini S, Wibowo MA, Ardinarsih P. Kandungan total fenol, aktivitas antioksidan dan sitotoksik daun kedadai (*Ficus variegata* Blume). *J Kimia Khatulistiwa*. 2015; 4(2): 1-5.
47. Carolina N, Noventi W. Potensi ekstrak daun sirih hijau (*Piper betle* L.) sebagai alternatif terapi *acne vulgaris*. *J Majority*. 2016; 5(1): 140-145.
48. Ameliana M, Sari NM, Zarta AR, Hermandi MF, Aryani F, Paurru P. Potensi manfaat daun sembung (*Blumea balsamifera*) dengan analisis kandungan fitokimia, aktivitas antioksidan dan antibakteri. *J Trop For*. 2022; 6(2): 188-196.
49. Afrianti R, Novelni R, Yulinda I. Pengaruh pemberian ekstrak etanol daun sembung (*Blumea balsamifera* (Lin.) DC) sebagai antihipertensi terhadap tikus putih jantan. *J Akademi Farm Prayoga*. 2020; 5(1): 1-10.
50. Harahap AP, Ramber R, Paramitha R, Yulanda. Standarisasi dan perbandingan efektivitas antioksidan ekstrak etanol dan dekok daun senggani (*Melastoma malabathricum* L.) dengan metode DPPH. *Forte J*. 2022; 2(1): 11-21.
51. Suwita S, Meldawati. Efektivitas ekstrak daun senggani (*Melastoma polyandrum* D.Don) terhadap bakteri *Staphylococcus epidermidis*. *Jambura J Health Sci Res*. 2022; 4(2): 565-573.
52. Prayoga GR, Huda AS, Sitepu SB, Husnawati. The potency of senggani (*Melastoma malabathricum* L.) leaves in repair of pancreatic beta cell for diabetes mellitus patients: a narrative review. *J Curr Biochem*. 2020; 7(2): 51-70.
53. Rahayu N, Ardigurnita F. Potensi daun katuk sebagai penurun kadar lemak pada produk unggas melalui skrining fitokimia. *J Agric Vet Sci*. 2021; 9(2): 136-139.
54. Fakhrial MA, Saputra KH. Potensi daun katuk dalam mencegah kerontokan rambut. *J Penelit Perawat Profesional*. 2020; 2(2): 193-200.
55. Nasution SW, Lubis N, Zendrato BCL, Silaban SR. Uji aktivitas ekstrak etanol daun tapak liman (*Elephantopus scaber* L) terhadap bakteri *Syentria* dengan metode difusi cakram. *Biospecies: J Ilm Biol*. 2021; 14(1): 18-24.
56. Surahmaida, Umarudin. Studi fitokimia ekstrak daun kemangi dan daun kumis kucing menggunakan pelarut metanol. *Indones Chem Application J*. 2019; 3(1): 1-6.
57. Bachtiar KVA, Andriana D, Widyaningrum I. Uji anti-bakteri ekstrak etanol dan fraksi etanol kumis kucing (*Orthosiphon stamineus*) terhadap *Staphylococcus aureus*. *J Community Med*. 2023; 11(2): 1-8.
58. Salasa AM, Ratnah S, Abdullah T. Kandungan total flavonoid dan aktivitas antioksidan ekstrak daun kumis kucing (*Orthosiphon stamineus* B.). *J Pharm Sci*. 2021; 17(2): 162-167.
59. Marlina L, Sukmawati IK, Juanda D, Anjani E, Anggraeni I. Penapisan fitokimia, kadar kurkuminoid dan aktivitas antibakteri temu hitam (*Curcuma aeruginosa* (Christm) Roscoe), temu putih (*Curcuma zedoaria* Roxb.) dan temulawak (*Curcuma xanthorrhiza* Roxb.). *Herb Med J*. 2021; 4(1): 57-64.
60. Rohma LN, Sjojfan O, Natsir MH. Komposisi minyak atsiri dan aktivitas antimikroba rimpang temu putih dan jahe gajah sebagai fitobiotik pakan unggas. *J Ilm Teknol Peternak*. 2019; 6(9): 181-187.
61. Desmiaty Y, Winarti W, Lindawati, Fahleni. Formulasi *Curcuma zedoaria* sebagai emulgel antioksidan. *Indones J Pharm Sci*. 2020; 18(1): 34-40.
62. Bogoriani NW, Suaniti NM, Putra AAB, Lestari KDP. The activity of cordyline terminalis's leaf extract as antidiabetic in obese Wistar rats. *Int J Pharm Res Allied Sci*. 2019; 8(2): 206-213.
63. Andani L, Sari NM, Salusu HD, Yusdiansyah, Wartomo, Prayitno J, et al. Analisis fitokimia, aktivitas antioksidan dan antibakteri daun andong merah (*Cordyline fructicosa*). *Parrenial*. 2022; 18(2): 39-44.
64. Aryantini D. Aktivitas antioksidan dan kandungan tanin total ekstrak etanol daun kupu-kupu (*Bauhinia purpurea* L.). *J Far*. 2021; 8(1): 54-60.
65. Hada AR, Sumayyah S, Indradi RB. Review article: bioactivity and chemical compound of the butterfly flower plant (*Bauhinia purpurea* Linn.). *Indones J Biol Pharm*. 2023; 3(1): 49-54.
66. Rahmawati AM, Anam K, Sasikirana W. Review artikel: potensi daun pepaya (*Carica papaya* L.) sebagai antikanker. *J Res Pharm*. 2023; 3(1): 27-35.
67. Febryana D, Fitrianiingsih SP. Kajian pustaka potensi aktivitas antibakteri ekstrak daun dan biji pepaya (*Carica papaya* L.). *J Ris Farm*. 2021; 1(2): 150-155.

68. Agustira A, Darwis I, Graharti R, Anggraini DI. Tanaman sambung nyawa (*Gynura procumbens*) sebagai antihiperlipidemia. Med Prof J Univ Lampung. 2019; 9(2): 240-244.
69. Putri NSE, Tjitraesmi A. Aktivitas *Gynura procumbens* untuk terapi farmakologi: sebuah review. *Farmaka: J Ilm Farm Indones* 2017; 15(1): 213-221.
70. Swandi MK, Salmi. *Gleichenia linearis* (Burm.) C.B.Clarke leaves extract potent as a medicinal plant based on its phytochemical profile and the total phenolic content. *Berkala Saintek*. 2018; 11(2): 96-105.
71. Prananda Y. Skrining fitokimia ekstrak etanol daun simpur (*Dillenia indica L.*) sebagai tahapan awal pada pengujian toksisitas. *J Mhs Farm Fak Kedokt*. 2015; 3(1): 1-13.
72. Utami MR, Anjani RD. Analisis fitokimia dan toksisitas ekstrak etanol daun kulit batang akar tanaman simpur (*Dillenia indica* Linn.) dengan metode *Brine Shrimp Lethality Test* (BSLT). *J Pharm Sci*. 2020; 16(2): 230-237.
73. Ratnah S, Salasa AM, Ibrahim HI. Uji potensi antimikroba fraksinasi ekstrak daun kecombrang (*Etlingera elatior*) terhadap *Candida albicans* penyebab keputihan pada ibu hamil. *J Pharm Sci*. 2018; 19(1): 45-50.
74. Farida S, Mazry A. Kecombrang (*Etlingera elatior*): sebuah tinjauan penggunaan secara tradisional, fitokimia dan aktivitas farmakologinya. *Indones J Plant Med*. 2016; 9(1): 19-28.
75. Razoki, Butar RGSB, Neswita E, Sembiring NB, Novriani E, Simanjuntak NJP, et al. Phytochemical screening test and measurement of total flavonoid levels in paku (*Nephrolepis biserrata*) extract with n-hexane, ethyl acetate, and water fractions. *J Pharm Sci*. 2023; 6(3): 1142-1160

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