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INVENTORY OF MEDICINAL PLANT IN CAMPUS B UNIVERSITAS NEGERI JAKARTA

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ABSTRACT

Research on the inventory of medicinal plants at Jakarta State University Campus B was conducted from May to June 2020 at Universitas Negeri Jakarta Campus B, which is located on Jalan. Youth No.10, Rawamangun, Jakarta Timur. This study aims to determine the types of medicinal plants at Campus B. The parts of the plants used as medicine, and the types of diseases that can be treated. Research using descriptive method and literature study method. The results of the study were based on the data obtained that medicinal plants in Campus B, Jakarta State University consisted of 17 types of medicinal plants consisting of 17 families.

Keywords: *inventory, medicinal plants, biodiversity*

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INTRODUCTION

Indonesia is one of the countries that has the largest tropical forest in the world, because it is ranked third after Brazil and the Democratic Republic of the Congo. This makes Indonesia rich in biodiversity, one of which is a plant that can be used as medicine or what is commonly called a medicinal plant. Indonesia has around 7,500 plants that can be used as medicinal plants (LIPI Researcher Andria Agusta).

Medicinal plants are plant species that are believed to be plants that can treat certain diseases. Medicinal plants can also be interpreted as types of plants which part or all of the plant parts can be used as medicine and medicinal ingredients. In addition, medicinal plants can be defined as plant species that produce one or more active components that play a role for treatment.

Plants that are efficacious as medicines contain exudate, namely cell contents that spontaneously come out of the plant or in a certain way, which are deliberately removed from the cells and are not yet in the form of chemical substances or pure substances that can be efficacious as drugs (Herdiani, 2012).

These medicinal plants can be grouped into: 1) traditional medicinal plants, 2) modern medicinal plants, and 3) potential medicinal plants. Traditional medicinal plants are plant species that are known or believed by the public to have medicinal properties and have been used as raw materials for traditional medicine. Modern medicinal plants are species of medicinal plants which have been scientifically proven to contain bioactive compounds/ingredients which have medicinal properties and their use is medically justifiable.

Potential medicinal plants are medicinal plants that contain compounds or active ingredients that have medicinal properties (Rubiah et al. 2015).

Jakarta State University Campus B is located at Jl.Pemuda No.10 Rawamangun, City of East Jakarta, Special Capital Region of Jakarta. Campus B has a fairly good potential for plant diversity, but the utilization of natural resources that have the potential as medicinal plants at Campus B, Jakarta State University has never been studied. Therefore, it is necessary to carry out an inventory of medicinal plants in this area. This is important to do, to know its existence and efforts to use it. In addition, the results of this study are expected to help provide information for subsequent research on the inventory of medicinal plants at Campus B, Jakarta State University.

METHODE

The research was conducted at Campus B, Jakarta State University, which is located on Jl. Youth No. 10 Rawamangun, City of East Jakarta, Special Capital Region of Jakarta. The time for conducting the research starts from May to June 2020. Each observation was carried out for approximately 2 hours, starting at 10.00-12.00 WIB.

Tools and materials

The tools used in this study included stationery used to record data collection, camera phones used for documentation, field guides for medicinal plants needed to facilitate identification of the types of medicinal plants found during research, and several scientific libraries that support research data. .

Research methods

This research uses descriptive method and literature study. Descriptive research method is a research method that is carried out with the main objective to make an objective picture or description of a situation. While the literature study method is a data collection technique by conducting a review study of books, literature, notes, and reports that have something to do with the problem being solved (Nazir 2013, p. 93). The results that have been obtained will be analyzed descriptively to find out the types of medicinal plants, the parts of the plants that are used as medicine, and the types of diseases that are treated with the aim of inventory and identification.

DISCUSSION RESULT

The results of research conducted at Campus B, State University of Jakarta found around 17 plant species that have the potential to be used as medicine as shown in Table 1.

Table 1. Types of medicinal plants found on campus B, Jakarta State University

No.	Local Name	Scientific name	Family
1	Suji	*Dracaena angustifolia*	Ruscaceae (Dracaenaceae)
2	Kenari	*Canarium indicum L.*	Burceraceae
3	Pakis Haji	*Cycas rumphii*	Cycadaceae
4	Glodokan Tiang	*Polyathea longifolia*	Annonaceae
5	Mondokaki	*Ervantamia divaricata L.*	Apocynaceae
6	Hanjuang	*Cordyline*	Asparagaceae
7	Pucuk merah	*Syzygium oleana*	Myrtaceae
8	Melati	*Jasminum sambac (L) W.*	Oleaceae
9	Kremah merah	*Altenanthera sessilis*	Amarantaceae
10	Walisongo	*Schefflera grandiflora*	Arailaceae
11	Bidara	*Ziziphus mauritiana*	Rhamnaceae
12	Daun Afrika	*Vernonia amygdalina Del*	Asteraceae
13	Kamboja	*Plumeria acuminata*	Apocynaceae
14	Ketapang	*Terminalia catappa L.*	Combretaceae
15	Sirih	*Piper betle L.*	Piperaceae
16	Katuk	*Sauropus androgynus*	Phyllanthaceae
17	Mengkudu	*Morinda citrifolia L.*	Rubiaceae

1. Suji *(Dracaena angustifolia)*
   The part of the suji plant that is used as medicine is the leaves. Suji leaves are useful for treating gonorrhoea, beriberi, and gastritis. In addition, people traditionally use suji leaves as an ingredient in internal medicine (lungs), dysentery, beriberi, gonorrhea, and menstrual pain medicine (Kinho et. al., 2011).
2. Kenari *(Canarium indicum L.)*
   Kenari contains a myriad of nutrients that are good for the body. Walnuts contain ellagitannin, a polyphenolic compound. Good bacteria in the intestines will convert ellagitannins into urolithin compounds, which are said to protect the body against inflammation and oxidative stress. Apart from ellagitannin, the content of omega 3 fatty acids, magnesium, and the amino acid arginine in these nuts can also help reduce inflammation in the body. Apart from that, walnuts are used to lower blood pressure, control blood sugar, lower cholesterol, and are good for brain health.
3. Pakis Haji (*Cycas rumphii)*
   Pakis haji has various health benefits. The leaves can be used to treat skin diseases, tonsils, high blood pressure, boils or burns. Apart from that, fern leaves can also be used to treat rheumatism, because ferns contain very high levels of calcium and phosphorus. On the stem, can be used to treat hepatitis, while the fruit can be used to treat diabetes mellitus and menstrual bleeding.
4. Glondokan tiang *(Polyathea longifolia)*
   Has many benefits in various parts. As in the seeds which are useful as antioxidants which are very strong so they can be used to remove toxins in the body. In addition, the root bark extract has 50% methanol which can be used to lower blood pressure and can be used to reduce fever and headaches.
5. Mondokaki (*Ervantamia divaricata L.)*
   Mondokaki root is used to treat diarrhea, toothache, pinworms, and chronic eye inflammation (Trachoma). Meanwhile, the leaves can be used to cure sore eyes, coughs, inflammation of the skin and wounds, and inflammation of the breast. In addition, the flowers can be used to cure purulent inflammation of the skin.
6. Hanjuang (*Cordyline)*
   All parts of the hanjuang plant such as flowers, leaves and roots can be used to treat various diseases, including preventing miscarriage, excessive menstruation, bleeding hemorrhoids, bloody urine, stomach and heartburn, tuberculosis (TB) and late menstruation. In addition, this plant can also be used to stop bleeding and relieve swelling due to bruises (antiswelling).
7. Pucuk Merah (*Syzygium oleana)*
   Contains bioactive compounds such as phenols, flavonoids, benarinic acid, alkaloids, triterpenoids, steroids, and saponins which can be used as high antioxidants and antibacterials. Thanks to its fairly diverse content of bioactive compounds, this plant is widely used as a natural medicine to treat various diseases. For example, fighting the growth of cancer cells, treating symptoms of irritable bowel syndrome, improving immune function, and lowering blood sugar levels.
8. Melati (*Jasminum sambac (L) W.)*
   This plant has many properties in every part of the plant, be it flowers, roots, or leaves. In the jasmine flower, can be used to treat fever, runny nose, diarrhea, and shortness of breath. Meanwhile, the leaves contain a source of antioxidants which are very useful for counteracting free radicals that can damage body cells and cause disease or health problems, and can also be used to prevent premature aging because of the antioxidant content they have, can prevent cancer, treat breast milk abundant / excessive, and good for eye health. In addition, at the root can overcome insomnia (difficulty sleeping), sprains, toothache, headache (Vertigo) and intestinal worms.
9. Kremah merah *(Altenanthera sessilis)*
   The leaves can be used to clear clogged heart blood vessels, reduce cholesterol, improve blood circulation, treat kidney disease and also cough up blood.
10. Walisongo (*Schefflera grandiflora)*

Walisongo leaves have various health benefits, namely they can be used to treat rheumatism, improve blood flow and prevent blockages, clean dirty blood, treat sore throats, relieve bone pain, and can help blood clot.

11. Bidara (*Ziziphus mauritiana)*
    It contains phenolics and flavonoids which are highly beneficial for health and can be used as antioxidants, anti-inflammatory, antimicrobial, and prevent tumors. From the phenolic content, it can be used to prevent the growth of bacteria. In addition, bidara leaves are also able to remove toxins contained in the digestive system, cleanse the skin from dirt, treat acne, and protect the skin from damage caused by UV rays from the sun.
12. Daun Afrika (*Vernonia amygdalina Del)*
    Several studies have proven the efficacy and content of African leaves, which can be used as a traditional medicine to treat toothache, gingivitis, anti-malarial, venereal disease, intestinal disease, antioxidant and antibacterial. In addition, it turns out that African leaves are also known as the leaves of a thousand diseases which are believed to be efficacious for treating diabetes, hypertension, reducing bad cholesterol, gout, hardening of the liver and even liver cancer, removing toxins in the body (detoxification), rheumatism, insomnia, tingling, fever, headache, get rid of cylindrical black spots, throat infections, get rid of phlegm, increase urination, strengthen stomach function, cough, strengthen lung function.
13. Kamboja (*Plumeria acuminata)*
    In this plant, the part that can be used as medicine is the flower. Decoction of dried frangipani flowers, efficacious for reducing fever, as a cough medicine and can help digestion. Apart from that, frangipani flower cooking water can also be used to treat scabies and skin diseases.
14. Ketapang (*Terminalia catappa L.)*
    Ketapang is one of the many medicinal plants that grows in Indonesia and has been used traditionally to treat skin, respiratory, stomach and gonorrhea diseases. In the fruit and leaves, efficacious for treating various diseases such as external drugs used to treat cysts, itching, wounds and internal medicine used to treat the digestive tract, respiratory disorders and high blood pressure.
15. Sirih (*Piper betle L.)*
    The part that is efficacious as a medicine is the leaves. Betel leaves are efficacious for preventing the growth of bacteria in the mouth, so as to prevent gum disease and cavities. In addition, betel leaves contain tannin antioxidants which are useful to quickly order the body to clot blood and heal wounds. Therefore, many people use betel leaves to stop nose bleeding (nosebleeds) and treat wounds. Betel leaf can also be used as a medicine for diabetes mellitus, hepatitis, gout, kidney stones, and hypertension.
16. Katuk (*Sauropus androgynus)*
    The leaves have many benefits, including facilitating breast milk, because they contain various nutrients such as vitamins A, B, C, fat, protein, calcium, iron, and phosphorus. In addition, katuk leaves contain ephedrine which is very effective for treating influenza. Katuk leaves also contain high levels of iron which is good for pregnant women to consume to prevent anemia and contain lots of chlorophyll which can clean body tissues and dispose of metabolic waste, as well as overcome parasites, bacteria and viruses in the human body.
17. Mengkudu (*Morinda citrifolia L.)*
    Can be categorized as a functional food, because it has many benefits that can be used to treat various kinds of degenerative diseases such as diabetes mellitus, stroke, cancer, inflammation, kidney, colds and so on. Apart from that, noni fruit is also effective in reducing systolic and diastolic blood pressure. The roots can be used to treat diabetes and eczema. Meanwhile, the bark and fruit flesh can be used to treat dysentery, colitis, coughs, urinary facilitating, swollen spleen, diphtheria, liver, stomach ache, bloody spit, canker sores, dandruff, constipation as well as the seeds, efficacious for moisturizing skin.

CONCLUTION

1. The types of medicinal plants found in Campus B, Jakarta State University consist of 17 species in 17 families.
2. Utilization of the most medicinal plant parts in the leaves.
3. In general, the types of medicinal plants are found to be efficacious for treating internal diseases of the body.

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