

Types of Medicinal Plants found in Kute Titi Pasir, Semadam District, Southeast Aceh Regency

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Abstract: The purpose of this study was to determine the types of medicinal herbs and plant organs used as medicines by the community in Titi Pasir Village, Semadam District, Southeast Aceh Administrative Region. A qualitative description was used, during which the morphological characteristics of plant species, including medicinal plants, found in medicinal research sites were described. The research process consisted of three stages: observation, sampling and identification. The result of the study showed that plants with medicinal properties found in home gardens were red chilli, small chilli, bitter melon, jasmine, pulai, noni and yarrow. Tomato, eggplant, bidura, water spinach and cucumber were found in the gardens. Roots, stems, leaves and fruits were used medicinally in the community.

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Introduction

Indonesia is the second largest country after Brazil that is famous for its rich biodiversity, or the first country in the world whose rich marine life is appreciated in the world. Indonesia is also known as the Biodiversity Country, which means the country with the highest biodiversity. Based on recorded data, Indonesia is home to approximately 30,000 plant species supported by fertile soil and a favorable climate, making Indonesia one of the potential drug-producing countries due to its good flora diversity. People utilize up to 1,000 types of plants to cure diseases, prevent diseases, increase stamina, and restore body freshness. In terms of the number of medicinal plants, only 283 types of plants are utilized in traditional medicine according to the Directorate General of POM (Azwar, 2016).

The content of chemical compounds contained in plants varies. Some of these plants are poisonous and some have medicinal properties so that they are widely used as medicines by the local community. Currently, many people understand the use and utilization of plants as traditional medicine. The reason is, people increasingly understand the importance of using natural ingredients or called back to nature, as well as knowledge of the use of plants as traditional medicines and the emergence of industries that use plants as raw materials. materials develop to the industry, making plants an alternative treatment that is done in addition to medication.

Hasanuddin (2017) states in his book *Take Care of Me Because I Can Take Care of You*: "Health is the most important investment in a person's life, without good health, humans cannot fulfill all their life needs. participate in health development. Alternative nursing work with traditional medicines is a form of participation in public health to support development." There are many medicinal plants around us, such as plants that grow wild in the forest, plants that grow on riverbanks, roadsides, yards or as weeds. "Plants with healing properties are also a legacy of our ancestors and have become traditional medicines known to the Indonesian people for generations in the form of herbal medicines and simplisia. "Simplisia is an ingredient of plant origin that is still very simple, pure, mixed or not processed, but pure and dried" (Mursito, 2017) "Seeds are a group of plants with the highest level of phylogenetic development, characterized by the presence of organs in the form of seeds" (Rahayu et al., 2016).

There are currently around 170,000 species of seed plants worldwide, making up more than half of the world's flora, estimated at around 300,000 plant species. The division of seed plants is traditionally divided into two subsections, namely Gymnosperms and Angiosperms. Both subdivisions are distinguished based on characteristics such as habitat, roots, stems, leaves, flowers and also how they are pollinated.

The availability of the classification of medicinal plants is a very useful factor in research activities and the utilization of medicinal plants and can be used to develop various herbal drink preparations. However, sometimes people lack information about the types and benefits of these herbal plants. each (Muhlisah, 2017). "There are many kinds of plants that have medicinal properties. We are very lucky because there are many kinds of medicinal plants that can grow well in this archipelago, these medicinal plants include spice plants, fruit plants, ornamental plants, fruit plants, vegetable plants and even wild plants, including Noni (*Morinda citrifolia L.*) from *Rubiaceae*, Belu (*Morinda citrifolia L.*) from *Rubiaceae*.) from *Rubiaceae*, Beluntas (*Plucea indica*), Sembung (*Blumea balsamifera*), and Tapak dara (*Vinca rosea*) from the *Apocynacea* tribe are widely known and considered useful by the community as traditional medicinal plants, but in this subcategory there are still many other plants that are beautiful ornamental flowers but also have medicinal properties that we can cultivate so that we can use them (Maryani, 2018). Kute Titi Pasir Subdistrict is one of the many villages in Semadam Subdistrict in Southeast Aceh Province. Kute Titi Pasir has many types of plants that grow both naturally and thanks to the planting of the surrounding community. A small number of medicinal plants have known benefits, but most of their benefits are still unknown, which encourages further research.

Methodology

The data collection method in this study used the exploratory/open method. Field visits were carried out by examining all corners of the research area where medicinal plants were found. After carrying out data collection and collection by direct participation methods of local people, herbalists and village heads who often utilize medicinal plants, herbarium data and identification. The equipment and materials used in this study are as follows:

Table 1. Research Tools

No.	Tools	Usability
1	Camera	To document research and research sources
2	Pocket Book	To record the names of medicinal plants used and the results of interviews
3	Fountain pen	As a writing instrument in recording research results.
4	Medicinal Plant Book	As a medicinal plant guidebook.

Table 2. Research Materials

No.	Material	Usability
1	Medicinal Plants	Used as a research sample to compile a research report

This research procedure consists of several steps, namely:

1. Observation Stage
 In the initial stage, observations were made to obtain primary information in the form of research locations and continued with sampling and interviews with resource persons.
2. Sampling Stage
 At this sampling stage, researchers first asked the community about plants used as traditional medicine. Next, researchers documented sample images.
3. Identification Stage
 At this stage, researchers directly interviewed sources about the production process of traditional medicines from each plant sample.

Results

The results of this study are expected to help increase knowledge about the processing of medicinal plants and the utilization of medicinal plants in the lives of the Kute Titi Pasir community in the area. According to (Yassir and Asnah, 2018), who have conducted the same research in lawe alas sub-district, Southeast Aceh district has increased community knowledge about the utilization of medicinal plants. Based on the results of research in the Kute Titi Pasir area, Semadam District, Southeast Aceh Province, medicinal plant species were used as primary data and recorded in the table. About 12 plant species have been found.

The Types of Medicinal Plants





The types of medicinal plants found in the research location are as follows:

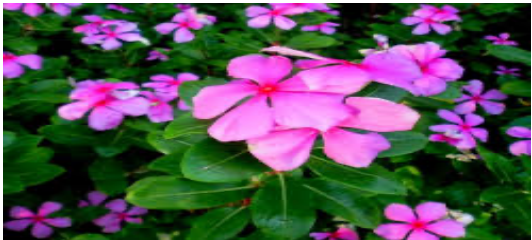





Tabel 3. The types of medicinal plants



No.	Type Name	Local name	Family	Location			
				Dsn 1	Dsn 2	Dsn 3	Dsn 4
<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>6</i>	<i>7</i>	<i>8</i>	<i>9</i>
1	<i>Capsicum annum</i>	Red chili	<i>Tubiflorae</i>	√	-	-	√
2	<i>Capsicum fustesc</i>	Cayenne pepper /	<i>Tubiflorae</i>	√	√	-	√
3	<i>Momordica charantia L.</i>	small chili	<i>Cucurbitales</i>	√	-	-	-
4	<i>Morinda citrifolia L.</i>	Pare	<i>Rubiales</i>	√	√	-	-
5	<i>Catharranthus roseus L.</i>	Noni	<i>Apocynales</i>	-	√	√	√
6	<i>Cucumis sativus</i>	Periwinkle	<i>Cucurbitales</i>	√	-	-	√
7	<i>Solanum lycopersicum</i>	Cucumber	<i>Tubiflorae</i>	√	√	-	-
8	<i>Solanum melongena</i>	Tomatoes	<i>Tubiflorae</i>	√	-	-	√
9	<i>Ipomea aquatica</i>	Eggplant	<i>Tubiflorae</i>	-	-	-	√
10	<i>Jasminum sambac</i>	Kale	<i>Ligustrales</i>	√	√	-	√
11	<i>Calostropis gigantea</i>	Jasmine	<i>Apocynales</i>	√	√	-	-
12	<i>Alstonia scholaris</i>	Biduri Pulai	<i>Apocynales</i>	√	√	-	-

Note:
 √ = Existing
 - = None

Table 4. Images of medicinal plants found in the research location as follows.

No.	Type Name	Scientific Name	Image
1	Red Chili	<i>Capsicum annum</i>	
2	Cayenne pepper / small chili	<i>Capsicum fustesc</i>	
3	Pare	<i>Momordica charantia L.</i>	
4	Noni	<i>Morinda citrifolia L.</i>	

No.	Type Name	Scientific Name	Image
5	Periwinkle	<i>Catharanthus roseus L.</i>	
6	Cucumber	<i>Cucumis sativus</i>	
7	Tomatoes	<i>Solanum lycopersicum</i>	
8	Eggplant	<i>Solanum melongena</i>	
9	Kale	<i>Ipomea aquatica</i>	
10	Jasmine	<i>Momordica charantia L.</i>	

No.	Type Name	Scientific Name	Image
11	Biduri	<i>Calostropis gigantea</i>	
12	Pulai	<i>Alstonia scholaris</i>	

Plant Parts and Their Medicinal Uses

Parts of the plant that are used as medicine by the people of Kute Titi Pasir include roots, stems, leaves and fruit. The process of mixing herbs in medicine can be done individually using only the plant material, it can also be mixed or combined with various types of plants by adding spices such as ginger, galangal, ginger, lime and alum. there is also a mixture of honey, brown sugar, brown sugar and white sugar with preservatives.

Medicinal plants contain alkaloids, tannins, saponins, amino acids, tannins, mimosine and pipecolic acid (Saripah, 2016). This is based on the results of interviews with local communities, namely plant characteristics, components and uses of medicinal plants presented in Table 5.

Table 5. Plant Parts and Their Medicinal Uses

No	Scientific Name	Type Name	Parts that used	Properties as medicine	How to use
1	2	3	4	5	6
1	<i>Capsicum annum</i>	Red chili	Fruit and Leaves	Can treat rheumatic pain, toothache, stomatitis, flu and increase appetite	Can be used with daily meals. Another option is to boil 10 g of chili peppers in ½ cup of hot water and use it as a mouthwash. Mashed chili peppers, given a little water, can be used as heat medicine
2	<i>Capsicum futesce</i>	Cayenne pepper	fruit	Relieves headaches, tired limbs return to normal, cough and nasal congestion disappear, appetite improves.	Headaches are reduced, tired limbs can return to normal, cough and nasal congestion disappear, appetite increases
3	<i>Momordica charantia L.</i>	Pare	Fruit	Treats fever, abdominal pain, dysentery, inflammation of the eyes, ulcers and inflammation in diabetics, increases appetite and strengthens the immune system	It can be drunk or cooked as a vegetable. Alternatively, the leaves can be dried, ground into powder and applied to painful areas on the outside of the body.

No	Scientific Name	Type Name	Parts that used	Properties as medicine	How to use
1	2	3	4	5	6
4	<i>Morinda citrifolia L.</i>	Noni	Roots, fruit, bark, flowers and leaves	Beneficial for strengthening bones, purifying blood, facilitating urine, menstruation, soothing the skin, cough medicine, deworming, laxative, treatment, improving blood flow, removing dandruff.	The fruit can be eaten directly, the leaves can be mashed into juice and drunk.
5	<i>Catharanthus roseus L.</i>	Periwinkle	Whole plant	As an anticarcinogenic, facilitates urination, regulates blood pressure, stops bleeding, facilitates menstruation and has an antipyretic effect as a febrifuge.	The leaves are boiled then the boiled water is drunk.
6	<i>Cucumis sativus</i>	Cucumber	Leaves and fruit	Remedy for diarrhea, dysentery, lowering high blood pressure and relieving skin inflammation	The fruit can be eaten as a vegetable or salad, and the leaves as a drink.
7	<i>Solanum lycopersicum</i>	Tomatoes	Whole plant	It can treat diabetes, bleeding gums, swelling and edema of the skin due to poisoning. Tomatoes are also high in vitamins A, B1 and C.	The fruit can be eaten directly as a fresh vegetable salad or made into a low-sugar juice, it can also be boiled with vegetables, while the stems and leaves are boiled with water until it boils, after which the boiled water can be washed on the affected area.
8	<i>Solanum melongena</i>	Eggplant	Whole plant	It can treat bloody stools, cough, rheumatism, arthritis, chronic sore throat, snake bite wounds, swollen wounds due to infection, itching due to weather allergies.	You can boil the fruit, add brown sugar to it and drink it. Eggplant roots can be cooked with a little sugar to make a syrup. As for external treatment, all parts of the eggplant plant are boiled and then the boiled water is used to wash or rub the affected area.
9	<i>Ipomea aquatica</i>	Kale	Leaves and stems	Treats itching, calluses (hardening of the skin), swelling from centipede bites, colds, toothache, difficulty urinating, piles, and blood in urine and feces.	For internal treatment kale can be boiled and added with sugar, salt and vinegar. As for external treatment, kale and its mixture are usually crushed and applied to the affected area.

No	Scientific Name	Type Name	Parts that used	Properties as medicine	How to use
1	2	3	4	5	6
10	<i>Jasminum sambac</i>	Jasmine	Flowers and leaves	Treat sore eyes, swelling from bee stings, fever, headache, shortness of breath and acne.	The leaves and flowers can be mashed and applied to various painful parts of the body.
11	<i>Calostropis gigantea</i>	Biduri	Leaves	Treat chronic infections, venomous snake bites, pain, stomach irritation and purulent urine	Crush and apply to the injured or painful area.
12	<i>Alstonia scholaris</i>	Pulai	Bark	Cures high blood pressure, fever, swelling and increases vitality.	Boil the bark and use the boiled water as a drink

Discussion

Based on the survey results, it is known that the types of medicinal plants found in the backyard of Kute Titi Pasir residents consist of plants such as red chili, cayenne pepper, bitter melon, jasmine, pulai, noni and tapak dara, while the types of plants in the residents' gardens consist of tomatoes, eggplants, mustard greens, kale, and cucumbers. The use of traditional medicine is generally considered safer than the use of modern medicine. This is because traditional medicine has relatively fewer side effects compared to modern medicine (Lusia, 2016). Traditional medicine is a mixture of natural ingredients that have traditionally been used in medicine based on experience (Katno and Promono, 2019). Found 346 individual medicinal plants from 21 families (*Lauraceae, Oxalidaceae, Cactaceae, Liliaceae, Amaranthaceae, Zingiberaceae, Solanaceae, Myrtaceae, Piperaceae, Arecaceae, Euphorbiaceae, Rutaceae, Fabaceae, Thymelacaceae, Rubiaceae, Apocynaceae, Pandanaceae, Palmae, Caricaceae, Poaceae and Annonaceae*) and 299 of them were found. divided into 3 (three) research locations (Yassir and Meliana, 2019)

The types of plants used to treat external diseases of the body are usually mixed and processed by grinding or kneading then affixed and rubbed on the affected body part. As for internal body diseases, it is usually mixed and made into a potion first by boiling, then the boiled water is drunk according to the required dose, but it can also be consumed directly in its whole form as a vegetable. The advantage of treatment with traditional herbal ingredients is the absence of side effects as in modern medicine (Siswoyo, 2016).

According to research, humans utilize plants to treat many diseases. People often use various herbal plants such as kale, jasmine, thyme, cayenne pepper, red chili, and noni to treat diseases outside the body. In addition, people also use several different plants to treat internal diseases, such as red chili, cayenne pepper, cucumber, noni, bitter melon, pulai, kale and eggplant.

Cayenne pepper is an example of a shrub that reaches 1.5 meters in height. Cayenne pepper is quite spicy compared to other chili varieties, because the level of spiciness reaches 50,000 - 100,000 Scoville scale. Cayenne pepper contains capsaicin (capsaicin), capsanthin, protein, fat. It also contains vitamins A and C (Siswoyo, 2016). Basically, the purpose of using traditional medicine is to maintain health and condition, prevent disease, replace or supplement drugs and restore health (Suhartini, 2019). In addition, the plants are also used as ornamental plants and many of them have medicinal properties and are used in medicine. The science that studies plants is called botany, which is one of the branches of biology (Winarto, 2017).

Conclusion

Based on the results of the research conducted, it can be concluded as follows:

1. There are 12 types of medicinal plants found in Titi Pasir Village, Semadam District, Southeast Aceh Regency, namely Red Chili (*Capsicum annum*), Cayenne pepper (*Capsicum futesce*), Bitter melon (*Momordica charantia D*), Noni (*Morinda citrifolia L.*), Tapak dara (*Catharanthus roseus L.*), Cucumber (*Cucumis sativus*), Tomato (*Solanum lycopersicum*), Eggplant (*Solanum melongena*), Kale (*Ipomea aquatica*), Jasmine (*Jasminum sambac*), Biduri (*Calostropis gigantea*), Pulai (*Alstonia scholaris*).
2. Plant parts that are used as medicine by the community are fruits, bark, leaves, flowers and all parts of the plant.

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