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## ETHNOBOTANY OF TRADITIONAL MEDICINE PLANTS OF THE MANDAILING TRIBE IN THE SIMPANG TALAP RIVER BASIN, RANTO BAEK DISTRICT, MANDAILING NATAL REGENCY

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#### ABSTRACT

Documenting the use of medicinal plants began to disappear over time. This traditional medicine is not documented to be delivered only verbally by the elderly and is less in demand among adolescents, causing this knowledge to begin to lag behind and disappear in one generation. This study aims to publish and document the belief system, utilization practices, local knowledge and Cultural Importance Values of traditional medicinal plant species of the Mandailing tribe. The research location was conducted in Manisak Village, Ranto Baek District, Mandailing Natal Regency which was held from December 2021 to March 2022. Data collection was carried out through semi-structured interviews, participatory observations, documentation, collection of plant samples and the manufacture of herbariums. Data are descriptively analyzed qualitatively and quantitatively. The results showed that the Mandailing people used 44 species of medicinal plants covered in 28 families. The highest families are zingiberaceae and asteraceae 4% while the lowest family rutaceae 1%. The highest habitus of terna and the least habitus is liana. The practice of plant utilization by the Mandailing Tribe begins with meeting datu, providing material tools, materials in the form of plants obtained from the advice of datu or parents who understand about the puff of medicinal plants, the most processing method is boiled and how to use it the most by drinking. The medicinal plant species with the highest ICS value is Eme (Oryza sativa) with a value of 71, its utilization as a medicinal material for various diseases and there is no claimant.

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#### Introduction

Ethnobotany can be used as a tool to document the knowledge of traditional people who have used various kinds of plant services to support their lives (Bangun, 2016). Ethnobotany is considered to include all studies that concern the mutual relationship between plants and traditional societies. Documentation of the results of this ethnobotanical research eventually became a means of communication and knowledge for traditional societies (Suryadarma, 2008).

Ethnobotanical research in Indonesia has been carried out in several tribal groups and certain regions, starting from only documenting the use of plants and revealing the cultural value and usefulness value of each plant used by local communities. As ethnobotanical research on the Batak tribe of Angkola North Sumatra has been reported by I'ismi et al., (2018) as many as 107 types of plants used for various uses, including building construction, foodstuffs. and medicine. Research in Mandailing Natal, Nasution et al., (2018) states that the Mandailing tribe mostly utilizes plants for food (41%), and utilization for medicine (31%). Hasairin (2010) stated that traditional knowledge about the use of plants has a high value of benefits to meet daily needs, ranging from food needs, boards, clothing, and for traditional medicine.

This traditional medicine is generally not documented like general science, and is only limited to knowledge that is conveyed orally (Qasrin et al., 2020). So that public knowledge about the use of medicinal plants is not lost by the developments that continue to occur. So, it is necessary to disclose the knowledge of the use of tribal traditional medicinal plants in Indonesia (Leksikowati et al., 2020), one of which is the Mandailing tribe in Ranto Baek District, Mandailing Natal Regency, North Sumatra Province.

At this time, not all members of the community have local knowledge. Local knowledge about the use of plants as traditional medicine is only in demand by the elderly and is less in demand among adolescents. Generally, people who have knowledge of such medicines are traditional elders, shamans, drug compounders and parents. The inheritance of such local knowledge is only conveyed orally without documentation. In addition, the development of the times, technological advances cause this knowledge to begin to lag behind and is prone to be lost in a generation. This is especially dangerous for the preservation of certain species because the rate of loss of the species relates to local knowledge.

Based on the description above, it is considered necessary to conduct research on "Ethnobotanical Study of Traditional Medicine of the Mandailing Tribe in the Simpang Talap River Basin, Ranto Baek District, Mandailing Natal Regency".

## **Materials and Methods**

Ethnobotanical research on traditional medicinal plants was carried out in Manisak Village in the Simpang Talap River Basin, Ranto Baek District, Mandailing Natal Regency. The study was conducted from December 2021 to March 2022.

The tools used in this study were sound recording devices, cameras, scissors, plastic ropes, plastic bags, hanging labels, newsprint, herbarium paper and stationery. The materials in this study were plant samples and 70% alcohol.

Data collection in this study was carried out through semi-structured interviews, participatory observations, documentation, collection of plant samples and the manufacture of herbariums.

- 1. The semi-structured interview was conducted with 8 informants, namely: the father of the village head, the traditional head (Natoras), 2 traditional medicines (Datu), and 5 experts and knew the use of plants as traditional medicine. Wawacara aims to obtain information about traditional medicine plant species, parts of plants used, habitus of plants used, and the benefits of these plants which are carried out with speakers who are or have used, taught, passed on and people who have local knowledge, know the belief system, how to use plants as traditional medicine
- 2. Participatory observation aims to observe all activities of plant utilization as traditional medicine.
- 3. Documentation aims to support and record local knowledge data of the community so that it is not lost.
- 4. Collection of plant samples and the manufacture of herbarium aims to identify plant species that are matched with the key book of identification written by Dr. C.G.G.J. van steenis (Flora), C.A, Backer and R.C. Bakhuizen van den Brink (Flora of Java Vol. I, Flora of Java Vol.II and Flora of Java Vol. III) and Marina Silalahi et al. Sumatra Medicinal (North Plants

Volume I). The scientific name of the plant refers to Accepted Name The Plantlist (2015).

Data on the belief system of local communities related to the use of plants as traditional medicine, local knowledge systems (local names, parts of plants used, plant habitus), as well as data on plant utilization were analyzed through an emic approach using semi-structured interviews. The results of the emic data collection are then tabulated.

Quantitative data of each plant species are analyzed through the calculation of the percentage of plant organs / parts, plant habitus and plant processing methods utilized by traditional medicine using formulas according to Hidayat (2009):

Percentage of parts use	$d = \frac{\sum part used}{\sum all parts used} x$
100%	
Percentage of plant habit	$\sum_{n=1}^{\infty} \sum_{i=1}^{\infty} plant habitus$

Percentage of plant habitus =  $\frac{\sum \text{plant habitus}}{\sum \text{ all plant used}} x$ 100%

Percentage of plant family =  $\frac{\sum \text{ plant family}}{\sum \text{ all plants family}} x 100\%$ 

 $\frac{\sum \text{ processing method}}{\sum \text{ all processing method}} x \ 100\%$ 

Percentage of usage =  $\frac{\sum usage}{\sum all usages} x \ 100$ 

Quantitative data in the form of important values of each plant used as traditional medicine were analyzed using the equation (Turner 1988):

ICS = (q x i x e)1 + (q x i x e)2 + (q x i x e)3+ .... + (q x i x e)n

Information:

ICS: The value of cultural importance

q: Quality value, calculated by scoring the quality value of plant use

i: Intensity value, calculated by scoring the intensity value of plant use

e: The value of exclusivity, calculated by giving the value of the level of favorability of the plant people.

### **Results and Discussion**

Based on the results of interviews that have been conducted with speakers that the use of plants as medicine by the Tribe community Mandailing in the Simpang Talap River Basin, namely: Manisak Village, has beliefs about the use of plants as medicine which is a legacy from ancestors. This legacy is still believed because no one forbids in the sense that all people have the same beliefs in terms of the use of plants as traditional medicine. The people of Mandailing believe that plants can be used in an effort to heal and get healing by the will of Allah Almighty. They also believe in a disease derived from the disorder of an ethereal being called "Alak Bunian", "Habang-kabang" who is annoying because they want to convey a message called "Tarsapo".

According the people to of Mandailing healthy is the mind, body, and feelings of feeling light and good so that they can carry out daily activities as usual. Meanwhile, pain is not good feelings, erratic thinking and the body is not feeling well so that it interferes with daily activities. It was in this condition that they declared themselves sick. After declaring themselves sick, their first step will be to try to find the source of treatment that exists and according to his beliefs. The first thing to do is to meet the "Datu" encountered for consultation about the disease suffered, then tell what plants will be sought to become medicine and how to process and use them. In its use, it is often used prayer-prayer which is read when you want to apply the drug. The prayer used uses Arabic, namely: the sayings of Basmalah, Solawat, Al-fatihah, Ayat Kursi, and long prayers are usually performed by datu.

The community has the most important or best known medicine known as "*tarsapo, pangir, and nabau-bau ubat*". If a person is sick both adults and children are first given *tarsapo* medicine. This *tarsapo* medicine is believed to be able to provide a sense of calm and a feeling of comfort when sick, this tarsapo medicine is also believed to be used to avoid interference by subtle creatures to the sick person. This is because, during illness, a person is easier to be disturbed by ethereal creatures or what is called *alak bunian*.

There are only three kinds of *tarsapo* medicine ingredients, namely: Eme (Oryza sativa L.), Unik (Curcuma domestica Val.) and lasiak lamot leaves (Capsicum frutescence L.), these three kinds of plants were used by our parents in the past because the ingredients of these three plants are plants that must be in the kitchen. Eme is an agricultural product that is used every day as a staple food, Lasiak Lamot and Unik which is used as an additive or spice in cooking. Mandailing society interprets Tarsapo as a reprimand or greeting from a deceased person, if an ethereal being says something to a human being either his speech in a reprimand either "don't go to that place" or "don't do it" then the person who is reprimanded will get sick.

The second drug is *Pangir*. *Pangir* is a drug used to separate ethereal creatures from the human body. Adapaun herb or Mandailing people call it *pulungan*, namely 7 types of plants including: silinjiang nabontar (Cordyline fruticose (L.) A. Cev.), silinjuang narara (Cordyline fruticose (L.) A. Cev.), sisangkil nalomlom (Justica gendarussa Burm.f.), sisangkil nabontar (Justica gendarussa Burm.f.), Dingin-dingin (Kalanchoe Pinnata (Lmk) Pers.), andulpak (Homalanthus populneus (Geisel.) pax.), and balikbaliangin (Mallotus paniculatus (Lmk.) M. A.). Sisangkil and silinjuang are used in two kinds each. The use of andulpak and *balikbaliangin* is believed to be pangombar-ombari (something used to get ethereal beings out of the body). Dingindingin is used as the name implies, which is believed to be *pamborgoi* (conditioning).

In its use, there is a difference between tarsapo and pangir. The people of Mandailing believe that tarsapo medicine is given to the sick as a protector or barrier, because the sick are considered to be easily disturbed by ethereal beings. *Pangir* is given when an ethereal being has entered into a person's body to separate the two.

As for the third drug is *nabau-bau*, this medicine is usually given to pregnant women, childbirth mothers and newborn children. The plants used are plants that have a distinctive smell, as the name implies nabau-bau, namely: Salimbatuk (Acorus calamus L.), lampuyang (Zingiber zerumbet (L.) Sm.), unik bungle (Zingiber cassumunar Roxb.), and dasun (Allium sativum L.), this medicine is used by making three-color ropes, namely black, white and red or the socalled bonang banalu. The black and red threads have the meaning of ethereal creatures and the white threads are considered chastity as an antidote to both, then the three threads are laced and *nabau*bau are formed into necklaces tied to the waist, while in babies it is enough to hang them on the swaddle using pins on or near the crowns. In its manufacture, the pieces of each plant must be of odd number, and before use it must be prayed for first by the datu. The use of odd numbers is believed to be liked by Allah SWT so that it is used in the number of medicinal plants.

Based on the results of interviews conducted with speakers in the Simpang Talap River Basin, namely Manisak Village, there are 44 species of plants used as traditional medicine, which are covered by 28 families. Local Knowledge of the Mandailing Tribe Community of Manisak Village related to the use of plants as traditional medicine is summarized in the following table.

No	Local Name, Latin	Types of diseases	Parts used	Processing Method	How to use
1.	Burangir	Toothache	Leaf	Boiled	gargle
	(Piper betle L.)	Wound	Leaf	Leaves are chewed	Sticked
2.	Eme	Tarsapo medicine / Fever	Fruit	A pinch of danon is soaked in a glass of water,	Drink and smear
	(Oryza sativa L.)	reprimand		then lasiak lamot leaves and turmeric are added.	
				Then the water is prayed for	
		Fever Up and down	Fruit	A pinch of danon plus turmeric and smashed	Sticked
				sirompaspara leaves	
3.	Andarasi	Wound	Stem	The stems are scraped on the layer under the bark	Sticked
	(Ficus aurita Blume.)			(produced with rice)	
4.	Bungaraya	Tarslap	Leaf	The leaves of the botanical flower are kneaded in	smeared
	(Hibiscus rosa-sinensis L.)			a container of water	
		Fever	Flower	Flowers, added with tirangga flowers, long	drink
				flowers, soaked in rice washing water.	
_		_			
5.	Tirangga		Flower		
	(Impatiens balsamina L.)	_			
6.	Bunga Panjang		Flower		
	(Jasminum grandiflorum (L.)				
	Kobuski.)	II'-1 D1-1 IZ' 1-1	Tref		1
7.	Kumis kucing	High Blood, Kidney	Leal	Boned with 3 cups of water to get 1 cup	drink
	(Ormosiphon spicalus (Inuno.)	Stones			
0	Sirungguk	Toothacha	Loof	Roilad	drink
٥.	Strungguk (Salaginalla doadarlainii Hieron)		Leal	Simungguk loovos plus sungka dairi loovos pandan	enraved
0	Sunaka Dairi	ruungan parangon /	Leaf	weasel leaf tips asaya burangir. All ingredients	sprayed
9.	(Bionhytum sensitivum (L.) DC.)	ellest feels stabbed.	Leai	are chewed	
10	Pandan Musang	_	Leaf		
10.	(Pandanus amarvllifolius Roxh)		Lear		
11	Siliniuang	Pangir / fever, reprimand	Leaf	Siliniuang leaves plus sisangkil leaves, cold-cold	Bathed
11.	(Cordyline fruticose (L.) A Chev.)	spirits	Loui	leaves, andulnak leaves, baliangin leaves, cut into	Dunica
12.	Sisangkil		Leaf	small pieces, soaked in water, prayed for	

No	Local Name, Latin	Types of diseases	Parts used	Processing Method	How to use
	(Justica gendarussa Burm.f.)				
13.	Dingin-dingin		Leaf	-	
	(Kalanchoe pinnata (Lam.) Pers.)			-	
14.	Andulpak		Leaf		
	Homalanthus populneus (Geiseler)				
	Pax & Prantl.			-	
15.	Balikbaliangin		Leaf		
	Mallotus paniculatus (Lam.) Mull.				
	Arg.				
16.	Sirompaspara	Fever	Leaf	The leaves are squeezed and soaked in a basin of	Bathed
	Mikania micrantha Kunth.			water and then condensed	
		Wound	Leaf	Sirompaspara leaves plus grape leaves and sweet	Sticked
17.	Angur- angur		Leaf	grass leaves are mashed	
	Ageratum conyzoides L.				
18.	Sambung Nyawa	High blood pressure	Leaf	Boiled	drink
	Gynura procumbens (Lour.) Merr.				
19.	Pultak-pultak	High blood pressure	Leaf	Leaves plus simarcarias leaves, bay leaves,	drink
	Physalis peruviana L.			balimbing leaves, boiled	
20.	Daun salam		Leaf		
	Syzygium polyanthum (Wight)				
	Walp.			-	
21.	Balimbing		Leaf		
	Averrhoa carambola L.			-	
22.	Simarkarias		Leaf		
	Peperomia pellucida (L.) Kunth.	XX 7 1	<b>T</b> C		D 1 1
23.	Srikaya	Wound	Leaf	Boiled	Bathed
	Annona Squamosa L.	Lice	Leaf	Crushed young leaves and fruit	smeared
24.	Gambir	Diarrhea	Leaf	Gambier dried leaves are mashed plus water from	drink
	Uncaria gambir S. Moore.			the burnt coconut leaf stalk (Alopa).	
25.	Arambir	Fever	Fruit	Coconut water mixed with village egg yolks	drink
	Cocos nucifera L				

No	Local Name, Latin	Types of diseases	Parts used	Processing Method	How to use
26.	Gadung jalar Ipomea batatas (L.) Lam.	Boil	Stems and tubers	Stems and tubers mashed	Sticked
	-	Smallpox Snake/ Singal	Bulbs	Smoothed	Sticked
		Malaria	Stems and	Gadung stems and leaves are added with cheep-	Bathed
			leaves	cheek shoots, langkueh shoots, unique Bungle	
27.	Unik Bungle	_	rhizome	shoots, Lampuyang shoots, boiled salimbatuk	
	Zingiber cassumunar Roxb.	_		shoots	
28.	Lampuyang		rhizome		
	Zingiber zerumbet (L.) Roscoe ex				
	Sm.	_			
29.	Salimbatuk		rhizome		
	Acorus calamus L.				
30.	Lasiak Lamot	Panu	Leaf	Smoothed	rubbed
	Capsicum frutescens L.				
31.	Galunggung	Fever	Leaf	Kneaded and soaked in a basin of water,	bathed
	Blumea balsamifera D.C.			condensed	
32.	Langkueh	Panu	Leaf	Smoothed	rubbed
	Alpinia galanga (L.) Willd.				
33.	Incung	Breast pain and swelling	Flower	Burned	Sorted
	Etlingera elatior (Jack) R.M.Sm.				
34.	Akar ali-ali	rheumatism	stem	Boiled	drink
	Tinospora crispa (L.) Miers ex				
	Hook. f. & Thoms.				
35.	Kembang merak	Menstruation is not	Flower	Soak in hot water	drink
	Caesalpinia pulcherrima (L.)	smooth			
	Swartz.	Sprue	Leaf	Boiled then add a little salt	gargle
36.	Pisang	sprain	stem	The young banana stem is cut in half, smeared	Sorted
	Musa paradisiaca L.			with a little cooking oil, baked.	
		Malaria	Fruit	The juice of the fruit is squeezed plus the juice of	drink
37.	Sanduduk	—	Leaf	the leaves of the sage.	
	Melastoma malabathricum L.				

No	Local Name, Latin	Types of diseases	Parts used	Processing Method	How to use
38.	Pining	Hot	Fruit	Chewable young fruit	Sprayed
	Areca catechu L.	Itchy	stem	Young stems (buds) plus boiled kasang jegang	Bathed
39.	Kasang Jegang Vigna sinensis L.		Fruit	leaves and seeds	
40.	Bangun-bangun Coleus scutellarioides (L.) Bth.	Diarrhea	Leaf	The leaves are added with a pinch of rice, grape leaves, roasted until dry, then soaked in hot water after drying.	drink
41.	Ciak-ciak Cymbopogon citratus (DC.) Stapf.	Toothache	stem	Boiled with a little salt	gargle
42.	Inggir-inggir Solanum torvum Sw.	Burns	Fruit	Smoothed	Sticked
43.	Unte asom	Cough	Fruit	Squeeze the fruit with a pinch of salt	drink
	Citrus aurantifolia Sw.	water fleas	Fruit	-	rubbed
44.	Rumput manis	Wound	Leaf	Leaves are chewed	Sticked
	Paspalum conjugatum Berg.	childbirth wound	Leaf	The leaves are added with galunggung leaves, then burned	smoke is bathed ( Marsidudu )

The plant species used by the Mandailing Tribe in medicine can be either one type of plant only or in the form of "*Pulungan*" (several plants are concocted and used together). The shape of the herb is believed to work more optimally because it contains a combination of the properties of several plants. The Muna tribe, Oe Nsuli Village, Kabangka District, Muna Regency, Southeast Sulawesi also uses medicinal plants in a single form or a mixture of several types of plants (Kasmawati et al., 2019).

Based on the results of family calculations of medicinal plant species that are used by the community as a treatment



Figure 1. Percentage of habitus

According to Tjitrosoepomo (2015) the habitus of plant species can be divided into several groups, namely: terna is a woodless plant with a soft and juicy stem, trees are plants that are large tall, woody stems and branched far from the soil surface, shrubs are plants that are not very large, woody stems, branches near the ground surface or even in the soil, shrubs are woody plants that are not very large and branch close to the surface, usually less than 5-6 meters, liana is a woody plant with a stick stick sticking / climbing on other plants. The species that is most commonly found to get types of medicinal plants is the herb species which has the characteristics of a soft stem because it does not form wood, has a height of  $\leq 2$  meters, including grass-type plants, vegetables such as spinach and katuk as well as flowering plants with a red or white color.

solution in daily life is the zingiberaceae family. Mandailing people in Manisak Village use a lot of turmeric to overcome colds, stomach pains and fevers. Marpaung (2018) found that the highest family obtained was zingiberaceae because it has rhizomes with a unique smell and is widely used by the community.

The most popular and most widely used plant habitus is terna that is, the second habitus of trees and shrubs, the fourth of shrubs and the fifth of lianas. The habitus utilization data can be seen in the following figure.



Figure 2. Percentage of Plant Organs

Based on the results of observations. the use of medicinal plants from habitus terna (29%) is more beneficial than trees. In addition to its easy retrieval because it is around the yard of the house both cultivated and wild and its processing is also easy, such as the leaves of Euphorbia heterophylla L., which is used as a constipation remedy. According to Nurmayulis and Hermita (2015), that terna does not need a large space to be planted and the concentration of the yard is part of the use of natural resources and the environment that benefits humans. Terna also has strong competitiveness and high adaptation to other plants so that it is able to grow even in land that lacks water.

In the use of plants by the Mandailing community, there is a part of the plant that is most often used as medicine is the leaf part, while the part of the plant that is least or rarely used is the tuberous part.



The same results were obtained in the study of Leksikowati et al., (2020) that obtained the most widely used organ is the leaves. The percentage of plant parts used by the Mandailing community as a medicine can be seen in the following picture.

The part of medicinal plants that are widely used by the community is leaves because they are easy to get, their taking does not take long and is easy to process, both boiled, brewed and some without processing. The use of the leaf part of a certain medicinal plant is a hereditary knowledge obtained from community elders. Scientifically, the leaf part contains a large content of secondary metabolites. Irawan et al. (2013) revealed that leaves are the most dominant organs used by the people of Sebangar Duri Thirteen Village and Kesumbo Ampai Duri Village, Bengkalis Regency. Leaf organs are most widely used because they are easy for people to obtain and easy to process because of their soft texture. In addition, the leaves have a variety of medicinally efficacious chemical compounds.

The use of leaves as traditional medicine has a positive impact on plant sustainability compared to the use of roots because if only leaf organs are taken, it will not cause a reduction in certain plant species, while if the part taken is plant roots, the plant species will decrease if there is no cultivation effort.



Figure 3. Percentage of Processing Method Figure 5. Percentage How to Use

How to use plants as traditional medicine by the Mandailing community in the Simpang Talap River Basin consists of processing methods and how to use them. The method of processing plants that is carried out is by boiling 22%, chewing 9%, mashing 22%, scraping 2%, kneading 7%, soaking 22%, cutting 4%, burning 7%, squeezing 4%, roasting 2%. This way of processing is known based on hereditary experience and knowledge. This method is usually used when the method of use is drunk. Similarly, the research of Lonita et al., (2019) which shows that the way traditional medicinal plants are processed by boiling is more widely used than in other ways. According to Leksikowati et al., (2020) that the boiling process can release substances contained in plants compared to how it is burned.

The most widely used method of using traditional medicine by the people of Mandailing is 2% gargle, pasted 20%, taken 32%, smeared 7%, sprayed, 5%, bathed 17%, rubbed 7%, sorted 5%, gargle 5%. The most widely used means is to drink. The same results obtained in the research of Utami et al. (2019) showed that the method of using medicinal plants that are most widely used by the ethnic community of Anak Rawa Kampung Penyengat Sungai Apit Siak Riau is to drink. How to use medicinal plants by drinking is a type of consuming potions in the form of liquids from the results of boiling, soaking, and squeezing.

# Conclusion

The people of Mandailing believe that diseases can originate from the exhaustion of the body or damage to certain organs, there are also diseases caused by disorders or reprimands from ethereal beings called "Alak Bunian" or "Nasonida-i". The people of Mandailing believe that plants that have a bitter taste are medicine. Plant species used as traditional medicine by the Mandailing Tribe 44 plant species covered in 28 families. The highest families are zingiberaceae and asteraceae. The part of the plant used as a traditional medicine by the Mandailing Tribe that is most widely used is the leaf part and the least is the tuber. Habitus medicinal plants used as traditional medicine by the Mandailing Tribe the most widely used is habitus terna and the least habitus is liana. The practice of plant utilization by the Mandailing Tribe about the use of plants as traditional medicine such as providing tools and materials used in medicine, ingredients used in the form of plants obtained from the advice of datu or parents who understand about the puff of medicinal plants. Next the plant is processed, then the drug is applied. The use of plants used as traditional medicine by the Mandailing Tribe, the most processing method is boiled and the most used method by drinking. The important value of culture/ Index of Cultural Significanse (ICS) plants utilized by the Mandailing Tribe in the Simpang Talap River Basin, Ranto Baek District, Mandailing Natal Regency has the highest value, namely Eme (Oryza sativa) with an ICS value of 71.

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### Reference

- Get up. (2016). Medicinal Plants and Wisdom Local Community Regency Phakpak West. *Journal bioscience*, *3* (2), 129–142.
- Hasairin, A. (2010). The Existence of Plants That Have Economic Botany In Indonesia. Journal of Community Service, 16(60), 1–7.
- Hidayat, A. (2009). Nursing Research Methods and Data Analysis Techniques . Jakarta: Salemba Medika.
- I'ismi, B., Herawatiningsih, R., and Muflihati. (2018). (Utilization of medicinal plants by people around IUPHHK-HTIPT. Bhatara Alam in Mempawah Regency). Journal of Sustainable Forests, 6(1), 16–24.
- Irawan, A. (2020). Extract and Fraction Activity of Cayenne Pepper (Capsicum frutescens L.) Leaves Against Streptococcus pyogenes Bacteria. *Journal of Medicine* and *Health*, 6 (2), 59-64.
- Kusumawati, E., Apriliana, A., and Yulia, R. (2017). Antibacterial Ability of Jackfruit Leaf Ethanol Extract (*Atrocarpus heterophyllus* Lam.) Against Escherichia coli. *Journal of Science And Health*, 1 (7), 327–332.
- Lexikowati, SS, Oktaviani, I., Ariyanti, Y., Akhmad, AD, and Rahayu, Y. (2020). Ethnobotany of Medicinal Plants of Local People of Lampung Tribe in West Lampung Regency. *Journal of Ocean Biology*, 2 (1), 35–53.
- Lonita, Hendra, M., and Hariani, N. (2019). Types of Traditional Medicinal Plants From the Kenyah Uma Baha Dayak Community in Kelay District, Berau Regency. *Journal of Pro-Life*, 6 (3), 214–223.
- Marpaung, J. (2018). Medicinal Plants and Local Wisdom of Communities Around Tnbg Area, Sibanggor Julu Village, Mandailing Natal Regency. *Journal of Bioscience*, 4(2): 85-91.
- Nasution, A., Chikmawati, T., Walujo, EB, & Zuhud, EAM (2018). Empirical

Utilization of Medicinal Plants in the Mandailing Tribe in Batang Gadis National Park, North Sumatra. *Indonesian Journal of Biotechnology & Bioscience*, 5 (1), 64-74.

- Qasrin, U., Setiawan, A., and Bintoro, A. (2020). Study of Ethnobotany of Medicinal Plants Used by the Malay Tribe, Lingga Regency, Riau Archipelago. Belaantara Journal, 3(2), 139–152.
- Suryadarma, I. (2008). Ethnobotany . Yogyakarta: Yogyakarta State University.
- Tjitrosoepomo, kingpin. (2016). *Taxonomy* of *Medicinal Plants*. Yogyakarta: Gajah Mada University Press.
- Turner NJ. 1988. "The importance of a rose": evaluating the cultural significance of plants in Thompson and Lilloet Interior and Salish. *American Anthropologist*. 90(2):272-290.
- Utami, R, D., Zuhud, E., Hikmat, A. (2019). Ethnobotany and the Potential of Medicinal Plants for the Ethnic Community of the Children of the Swamp Village of Penyengat River, Apit Siak, Riau. *Conservation Media*, 24(1), 40-51.