



## BOILING TECHNIQUE AS A WAY OF PROCESSING ANTIDIABETIC MEDICINAL PLANTS OF THE ANAK TRIBE IN THE KIJANG RIVER, ULU RAWAS DISTRICT

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### Abstract:

The tributary tribe in the Kijang River is a tribe that is scattered and found in the hamlet of Sungai Kijang, Rawas Ulu district, and for generations has carried out treatment using plants, such as treating diabetes whose sufferers do not look at age. People generally treat this disease by consuming synthetic drugs that for a long time have side effects for other parts of the body. Therefore, proper processing of medicinal plants can be a solution to minimize the side effects of synthetic drugs. The method used in the study used the cruising method with observation techniques, interviews with the head of the Deer River tribe, the use of primary sources, and documentation. The results of exploring the forest along the Antelope River for approximately 1 month show that the boiling technique is a technique that is often used by the Anak tribe in processing plants into antidiabetic drugs. It is concluded that nature has great potential to prevent, treat, and also as the body's immune system from disease.

**Keywords:** antidiabetic, boiling, Orang Rimba (Orang Rimba Tribe), Sungai Kijang

### INTRODUCTION

Based on data released by the International Diabetes Federation (IDF) in 2021, it is known that Indonesia is the fifth most country, namely there are 19.5 million Indonesians aged 20-79 years who suffer from this diabetes (IDF, 2021). Diabetes mellitus is a degenerative disease that shows a greater process of cell destruction and a decrease in nerve cell resistance and results in faster cell



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death (Suiraoaka, 2012). However, long-term use will negatively affect the body. Taking pharmacological drugs can result in decreased kidney work (Sanjoyo, 2018), the forms of kidney disorders most often caused by drug disorders are interstitial nephritis and glomerulonephritis. South Sumatra Province is a province in Indonesia consisting of several cities and regencies, one of which is North Musi Rawas Regency where there is an increase in the prevalence of non-communicable diseases, namely diabetes (South Sumatra Provincial Health Office, 2021).

So far, Indonesian people are still dominant in using chemical drugs due to the rapid response in lowering blood sugar levels, namely in the form of drug classes from sulfonylurea, meglitinides, phenylalanine derivatives, biguanides, tiazolidindione,  $\alpha$ -glucosidasae inhibitors (Ministry of Health of the Republic of Indonesia, 2016). Synthetic chemical treatment has characteristics that come from the west, use chemicals, drug absorption 50%-70%, are antibiotics, reduce the immune system, overcome symptoms, cause side effects and efficacy faster but dedruktive (Hasdianah, 2012). Therefore, to reduce the negative impact of chemical drug consumption, traditional medicinal plants are one solution. Medicinal plants are types of plants that are partly or fully used as medicines, ingredients or medicinal herbs (Jo, 106; Jennifer and Saptutyarningsih, 2015; Lestari and Yunita, 2021). One tribe that until now still uses plants as medicine to treat diabetes is the Anak Rimba Sungai Kijang located in Sungai Kijang village, Rawas Ulu District, North Musi Rawas Regency.

Based on the results of observations and initial interviews with the head of the deer river tribe, it is known that several plants are used as diabetes medicine, namely sambiloto leaves by boiling or chewing directly. The use of plants as medicine by this tribe because it is passed down from ancestors, is easy to obtain, and certainly does not cost much. Medicinal plant treatment is easily found around us (Pranata, 2014). Herbal plants can be found growing wild in rice fields, gardens, and roadsides so that people can take them freely without having to spend money (Pranata, 2014; Cotesea, et al., 2017). The plants used by the tributary tribe in the antelope river are quite abundant but only known by this tribe, so there needs to be an effort to provide extensive information to the general public, especially teenagers who hardly know that plants can be used as medicine.

The general objectives of this study are: (1) exploring potentially antidiabetic medicinal plants used by the Anak Dalam Sungai Kijang Tribe, (2) describing the types of medicinal plants, (3) describing the plant parts used, and (4) describing how to process potentially antidiabetic medicinal plants.

## METHOD

### 1. Research Methods

This research was carried out in the Orang Rimba Sungai Kijang, Musi Rawas Utara Regency and was carried out in February-July 2023. This research focused on potentially antidiabetic medicinal plants. Data collection in this study used several techniques, namely: observation, interviews, and documentation.

## 2. Data Collection

The collection and exploration of potentially antidiabetic medicinal plants will be carried out through direct observation to the field, interviews, and documentation using research tools and field guidebooks. Data collection was collected through observation sheets, interview questionnaires, and documentation (Yustian, 2017).

## 3. Data Analysis

The data analysis used was in the form of descriptive analysis with a qualitative approach, consisting of the types, parts used, and ways of processing potentially antidiabetic medicinal plants known by the Anak Dalam Tribe of Sungai Kijang, Rawas Ulu District.

## RESULTS AND DISCUSSION






### 1. Result



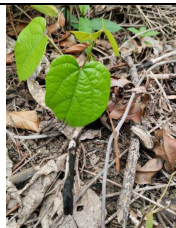



#### a. Description of Observations and Interviews




This research was conducted on the Orang Rimba (SAD) of Sungai Kijang Village, Rawas Ulu District in July 2023. Which aims to find out the types of medicinal plants used by the Orang Rimba (SAD) Sungai Kijang Village, Rawas Ulu District, and later can be used as a source of information and reference by the community in general about medicinal plants used by the Orang Rimba (SAD) Sungai Kijang Village, Rawas Ulu District.

Based on the results of research that has been conducted in the Orang Rimba (SAD) Sungai Kijang Village, Rawas Ulu District, there are 14 types of plants used as medicines, namely Marasi, Uncomfortable Plants, Tin Roots, Pasak Bumi, Kratom, Yellow Roots, Sekubung, Mendururat, Kemeran, Lentemuan, Passion, Okinawan Spinach, Kerisan, and Gembili. The types of plants found in the Orang Rimba (SAD) of Sungai Kijang Village, Rawas Ulu District can be seen in table 1 below:

**Table 1. Types of Medicinal Plants in Orang Rimba (SAD) Sungai Kijang Village, Rawas Ulu District**

No	Plant Name		Parts Used	Processing Methods	Benefit	Picture
	Common Name	Name Local				
1	Marasi <i>Hynenaea courbaril</i>	Laninang	Root	Washed, eaten directly	Diabetes	
2	Brachypodium sylvaticum	Tanaman risih	Root	In washing, the roots are eaten immediately	Dry cough	
3	Sarsaparilla <i>Smilax glabra</i>	Akar timah	Root	In the cut, water on the stem drips into the eyes	Eye pain	
4	Pasak bumi <i>Eurycoma longifolia</i>	Pasak bumi	Batang dan Root	Boiled, drunk	Fever, chills and diabetes	
5	<i>Mitragyna speciosa</i>	Kratom	Leaf	Boiled, drunk		

6	<i>Akar kuning</i> <i>Arcangelisia flava</i>	Akar kuning	Root	Boiled	Vertigo	
7	<i>Cocoloba mollis</i>	Sekubung	Bagian dalam batang	Cleaned from the outer skin, take the clear part directly in the meal	Diarrhea	
8	<i>Cercis canadensis</i>	Menduurat	Leaf	Boiled, drunk	Rematic	
9	Daun ampelas <i>Tetracera scandens</i>	Kemeran	Root	Soaked in brine	Postpartum cleaning	
10	Randu hutan <i>Bomba ceiba</i>	Lentemuan	Root	Warmed on fire	Toothache	
11	Bunga gairah <i>Passiflora suberosa</i>		Leaf	Directly used as a dining pad	Appetite enhancer	

12	Bayam okinawa <i>Gynura bicolor</i>	Racun angin	Leaf	Boiled	High fever	
13	Kerisan <i>Scleria sumatrensis</i>	Rija-Rija	Root	Washed and eaten immediately	Diabetes	
14	Gembili <i>Dioscorea esculenta</i>	Umbi soan	Umbi	In washing,  In boiled,  The water is drunk	Prostate	

#### b. How to Process Medicinal Plants

Based on the results of research conducted in the Orang Rimba (SAD) in Sungai Kijang Village, Rawas Ulu District, how to process medicinal plants can be seen as a percentage in table 2.

**Table 2. How to Processing Medicinal Plants**

**In Orang Rimba (SAD) in Sungai Kijang Village, Rawas Ulu District**

No	Processing Methods	Sum	Percentage (%)
1	Washed	4	16,67
2	Eaten immediately	4	16,67
3	Cut	1	4,16
4	By rebus	6	25
5	Drops into the eyes	1	4,16
6	On the drink	4	16,67
7	Cleansed from skin	1	4,16
8	Soaked with brine	1	4,16

9	Washed on fire	1	4,16
10	Direct to use	1	4,16
<b>Sum</b>		<b>24</b>	<b>100%</b>

Based on table 2 above, it shows that the method of processing medicinal plants by the Orang Rimba (SAD) community in Sungai Kijang Village, Rawas Ulu District, is the most by boiling, which is 25%, the following is how to process medicinal plants (figure 1):

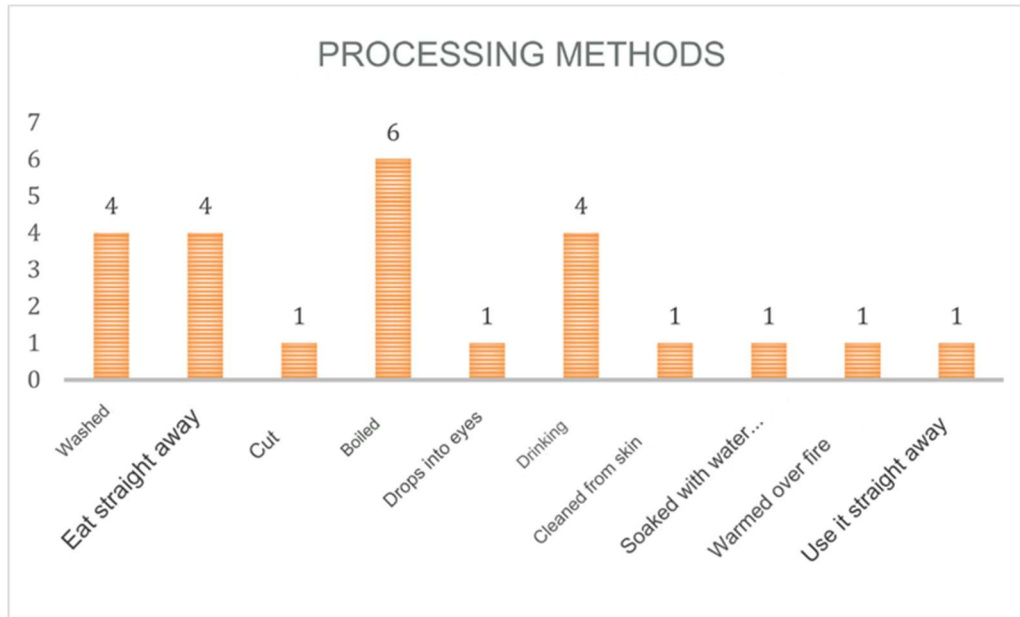


Figure 1 how to process medicinal plants

## 2. Discussion

The results of research on medicinal plants found in the Orang Rimba (SAD) in Sungai Kijang Village, Rawas Ulu District, amounted to 14 types of plants. Each type of plant has a different function, from the results of interviews and direct observations found that almost all plants found come from the wild without being planted. The use and knowledge of the oat plant is inherited from generation to generation from the ancestors and understanding of the Orang Rimba (SAD) community only based on direct experience without knowing the content of substances in the plant.

Based on the results of interviews at the Orang Rimba (SAD) in Sungai Kijang Village, Rawas Ulu District, plant parts used as medicine by the community include roots, stems, and tubers. The most widely used part of the plant is the root and the second part that is often used is the leaf. Compounds contained in leaves such as tannins, alkaloids, and essential oils that are useful as drugs stored in tissues on leaves (Kartika, 2015: 40). Phytochemical screening tests with the decoxy method show that yellow wood root contains alkaloid compounds and saponins that are believed to be efficacious as drugs (Ministry of Health, 2018; Ratnasari and Handayani, 2018). In

addition, yellow root can be used to treat jaundice (Hepar), digestion, intestinal worms, strong drugs/tonics, anti-cancer (Futwembun, et al., 2019), anti-bacterial (Pratama, 2016), menstrual decay, and antidiabetes (Mulyani, 2020).

The method of processing plants as medicine carried out by the community in the Orang Rimba (SAD) in Sungai Kijang Village, Rawas Ulu District is a simple way, does not require many tools, and does not require a long time. The most widely used method of processing plants based on the results of interviews with the Orang Rimba community is by boiling. The boiling process can lift substances contained in plants and has a reaction that is so fast when drunk (Gunadi, 2017). Processing plants by boiling can reduce bland and bitter taste compared to being eaten directly, and by boiling more sterile because it can kill pathogenic germs or bacteria (Novianti, 2017).

The way of managing medicinal plants in SAD varies greatly, with the variety of various ways of processing, it is expected to be an alternative to the use of medicinal plants in nature, and can minimize the use of chemical drugs that can have an impact on health if consumed in the long term and if consumed continuously (Lestari and Susanti, 2019).

## CONCLUSION

Based on research that has been done, it is known that the main source of treatment from the Orang Rimba Sungai Kijang comes from organs in the form of roots by processing the most by boiling. There are 14 types of plants found, namely Marasi, Uncomfortable Plants, Tin Roots, Pasak Bumi, Kratom, Yellow Roots, Sekubung, Mendururat, Kemeran, Lentemuan, Passion, Okinawa Spinach, Kerisan, and Gembili. How to process 14 medicinal plants as the most antidiabetic is by boiling technique.

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