

# **Ethnobotany *Etlingera elatior* (Jack) R.M. Smith (Cikala) in Ethnic Gayo**

Saudah<sup>1</sup> Fitmawati<sup>2</sup> Dewi Indriyani Roslim<sup>3</sup> Zumaidar<sup>4,\*</sup> Darusman<sup>5</sup> Ernilasari<sup>6</sup>

<sup>1</sup>Graduate School of Mathematics and Applied Science, Universitas Syiah Kuala, Jln. Tgk. Syech Abdul Rauf, Darussalam, Banda Aceh, 23111, Indonesia

<sup>1,6</sup>Faculty of Teacher Training and Education, Universitas Serambi Mekkah, Banda Aceh, 23245, Indonesia

<sup>2,3</sup>Department of Biology, Faculty of Mathematics and Natural Sciences, Universitas Riau, Pekanbaru, Riau, 28293, Indonesia

<sup>4</sup>Department of Biology, Faculty of Mathematics and Natural Sciences, Universitas Syiah Kuala, Jln. Tgk. Syech Abdul Rauf, Darussalam, Banda Aceh, 23111, Indonesia

<sup>5</sup>Faculty of Agriculture, Soil Science Department, Universitas Syiah Kuala, Jln. Tgk. Syech Abdul Rauf, Darussalam, Banda Aceh, 23111, Indonesia

\*Corresponding author. Email: [zumaidar@unsyiah.ac.id](mailto:zumaidar@unsyiah.ac.id)

## **ABSTRACT**

*Etlingera* is a genus of medicinal plants originating from the Indo-pacific region. Traditionally, people have used the *Etlingera* plant as a culinary ingredient, food flavouring, and also as traditional medicine. Gayo tribal people know *Etlingera elatior* by the name cikala. This study aims to determine the use of *Etlingera* plants in the Gayo tribe community. This research was conducted on the Gayo tribe community located in Suka Makmur Jaya Village, Terangun District, Gayo Lues. The method used in this research is exploration and observation using the Participatory Rural Appraisal (PRA) technique is an assessment that is oriented towards the process of involvement and role of the community in research. Resource persons in this study were informants and respondents who were differentiated by gender. The parameters in this study were the types of diseases that were cured using *Etlingera* plants. The results showed the use of *Etlingera elatior* in traditional medicine by the Gayo tribe including the treatment of cough, abdominal pain, bloating, washing wounds, fatigue and fatigue and postpartum medicine. The parts of plants used as medicine are young stems, old stems, fruits and rhizomes. besides being used for medicine *e. elatior* is also used as a food ingredient. Young stem *E. elatior* or also known as terpuik is used by the community as a vegetable. *Etlingera elatior* flower buds are used by the community as a basic ingredient in freshwater fish dishes.

**Keywords:** *Ethnobotany, Cikala, ethnic Gayo, Medicinal Plants*

## **1. INTRODUCTION**

Ethnobotany is the study of the direct interaction between plants and humans in their culture. Human interest in plants began on the need for food, clothing, housing and medicine [1]. Indonesia as a mega biodiversity and ethnic mega country has a wealth of traditional knowledge about the use of plants as medicine. The Gayo ethnic group is an

edicine. The traditional use of medicinal plants has become a prehistoric practice, with traditional knowledge passed down from generation to

ethnic group that inhabits the Gayo highlands in Aceh Province [2]. Until now, the ethnic Gayo community still uses plants as traditional medicine for health maintenance and treatment of various diseases. *Etlingera elatior*, commonly known as cikala flower, has empirically been used by the Gayo people as traditional

generation in families [3]. Traditional health care systems provide valuable information about the efficacy and use of medicinal plants based on local

community knowledge. So it is feared that in the midst of the current development of cultural modernization, this traditional knowledge is slowly being eroded by habits that cause the extinction of knowledge held by the community. Therefore, it is necessary to study of ethnobotany *Etilingera elatior* on ethnic Gayo. This study aims to explore local information from the ethnic Gayo community about the use of *E. elatior* as a traditional medicine, so that people's knowledge of traditional medicine can be preserved. This effort also has the potential to find a standard medicine that can be developed in a modern way to cure degenerative diseases.

## 2. MATERIAL AND METHODS

The research was carried out on the ethnic Gayo community who inhabit the Village of Makmur Jaya, Terangun Regency, Gayo lues. Tools and materials used; a list of questions, stationery, cameras for documentation and GPS (Global Positioning Syastem) recording position points taken medicinal plants.

This study used an exploratory survey with a semi-structural interview technique. The sample in this study consisted of informants (healers or traditional healers) and respondents. Respondents were divided into male and female. The data were analyzed descriptively, in order to obtain results in the form of diseases are cured, part of the plant used, processing methods and ways of utilization.

## 3. RESULT AND DISCUSSION

Respondents who provided information on research data were as many as 34 people consisting of 17 women and 17 men. Types of diseases treated by using the *Etilingera elatior* plant by the ethnic Gayo community include diseases of the respiratory system, diseases of the digestive system, diseases of muscles and joints, diseases of the reproductive system, diseases of the hearing sense, and diseases of skin problems (Figure 1).

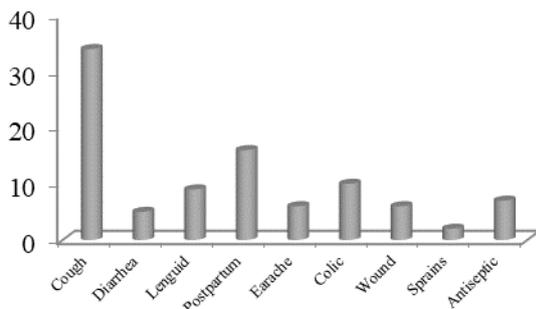


Figure 1. Diseases cured using *Etilingera elatior*

Based on the treatment of types of diseases cured using the *Etilingera* plant by the Gayo tribe community, they are grouped into:

### 1. Respiratory System Disorders

Coughing is a symptom of respiratory disease that is often experienced by people in their daily life [4]. Traditionally, people have used *E. elatior* stems as a herb used to treat coughs. The stems of the *E. elatior* plant are roasted, then squeezed so that they get water. The juice from the *E. elatior* plant is added with a little salt then drunk to soothe the throat. Traditional knowledge on subetnis Batak people have made use of stems and leaves *E. elatior* as cough medicine [5].

### 2. Diseases of the Digestive System

Diarrhea is a digestive disorder caused by gastrointestinal infections characterized by changes in the shape and consistency of loose stools from normal [6]. Diarrhea can be caused by several factors, such as infections caused by bacteria, viruses, parasites and fungi [7]. Ethnic Gayo people have traditionally used water from the juice of *E. elatior* stems which has been burned with gambir (*Uncaria gambir*) to be used as medicine. *E. elatior* contains active compounds such as alkaloids, phenolics, triterpenoids, saponins and glycosides which are beneficial for the body [8]. Pharmacologically, *Etilingera elatior* flower and stem extract has activity as anti-bacterial *Staphylococcus aureus* and *Escherichia coli* [9].

### 3. Disease in muscle and hinge

Apart from stems, *Etilingera elatior* fruit is generally used by the Gayo ethnic community as a medicine to relieve fatigue and fatigue. This concoction is formulated with a mixture of turmeric, ginger, cumin, lempuyang, ginger and added palm sugar and cikala fruit juice [10]. In addition, the mixture of water with the feeling of cikala fruit and whitening is used by the ethnic Gayo community to treat bruises or swelling of the bones due to sprains.

### 4. Reproductive System Diseases

*Etilingera elatior* is also used as a traditional postpartum medicine in the Gayo ethnic community. The types of plants used in this concoction are turmeric, ginger, ginger, pepper, coriander, black cumin, nutmeg, lempuyang cooked with palm sugar and added with cikala fruit juice. This type of herb is also called cool makjun, apart from being used as a traditional

postpartum medicine, cool makjun is also used for cold medicine. The leaves of *E. elatior* are also used as a mixture to remove body odor in postpartum [11-12].

5. Skin disease

The Gayo tribe also uses the *E. elatior* plant as medicine to treat wounds in the ears and wounds on the skin. Traditionally the fruit is used to treat earaches, while the leaves are used to clean wounds [13].

3.1. Plant Parts Used

When viewed from the part of the plant used as a medicinal herb, there are two kinds of parts that are often used, namely, the stem and fruit. The stem is a part of the plant that is often used by the Gayo ethnic community in concocting plants as medicine, amounting to 67%. Apart from being used as a medicinal plant, it is also used as a vegetable. Processing is done in a simple way, namely by roasting the young stems, which are then taken the water. The water produced from the stems is then used as a potion to treat various diseases. The fruit is processed by pounding which then filtering the water to be used as medicine (Figure 2).

Part of the Plant Used as a Herb

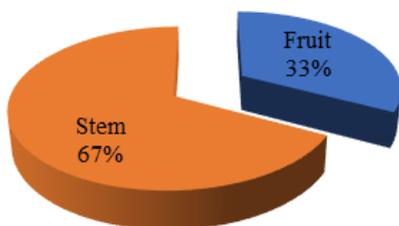


Figure 2. Parts of plants used of medicinal herbs

3.2. Traditional Medicinal herb processing.

Processing is done singly or mixed. Singly, processing is done by roasting and boiling. Processing by roasting is believed to be more effective [14]. Processing of medicinal plants by direct boiling is believed to have proven efficacious for treating certain diseases. Processing by boiling also is the most widely used by some areas of Papua [15], it is believed to be because it has a fast reaction when drunk [16]. The processing is done by grinding the mixture to smooth concoction. Plant processing by using milled stones by the people of the Keraton

Surakarta is directly used because it does not use preservatives[17].

3.3. Use of Herb Medicinal

The use of traditional medicinal ingredients from the *E. elatior* plant is consumed by rubbing, sticking washing and drinking. The most common way to use it is by drinking it (Figure 3).

The use of medicinal herbs by drinking is a practical way for the Gayo ethnic community. This is due to the public belief that the ingredients will react quickly if they are drunk and immediately accepted by the patient's body, thus accelerating healing. The medicinal ingredients used in the Gayo ethnic community are divided into two categories, namely ingredients that are consumed daily for stamina and to maintain a healthy body and ingredients that are made under certain conditions when needed. The herb that is consumed regularly is *makjun sejuk*, which is consumed to relieve fatigue, increase stamina and prevent colds.

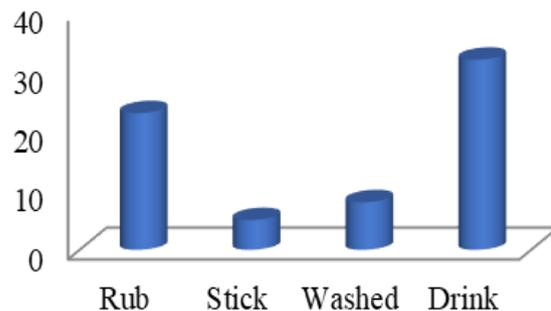


Figure 3. The use of herb as medicine

4. CONCLUSION

Based on the research results, it can be concluded, Gayo people generally use the cikala plant as a practice in traditional medicine. Types of diseases that can be cured include coughing, diarrhea, weakness and lethargy, wounds, sprains, earaches, stomach aches and antiseptics for cleaning wounds. Stems and fruit parts that are most widely used as medicinal herbs. The processing method is done by roasting, grinding, boiling. herb used in drinking

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