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# Lexicon of Traditional Medicinal Plant in Deli Malay: An Ecolinguistic Study

Zahra Rifasyah

Universitas Sumatera Utara, Medan, 20155, Indonesia

Corresponding Author: [rifasyahzahra@gmail.com](mailto:rifasyahzahra@gmail.com)

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### ABSTRACT

This study aims to analyze the segmental phonetic structure of four names of medicinal plants in Deli Malay, namely cinnamon (*Cinnamomum verum*), gambir (*Uncaria gambir*), lime (kapur sirih), and sirih (*Piper betle*). This study also connects linguistic data with the function of plants in the traditional medicinal culture of the Deli Malay community. Using qualitative descriptive methods and an articulatory phonetic approach, the results of the study indicate that each plant name has unique phonetic characteristics that reflect the phonotactic patterns of the language and the accompanying cultural functions. This study contributes to the preservation of local linguistic and ethnobotanical treasures.

**Keywords:** Segmental phonetics, Deli Malay, Medicinal plants, Ecolinguistics

### ABSTRAK

Penelitian ini bertujuan untuk menganalisis struktur fonetik segmental pada empat nama tumbuhan obat dalam Bahasa Melayu Deli, yaitu kayu manis (*Cinnamomum verum*), gambir (*Uncaria gambir*), kapur (kapur sirih), dan sirih (*Piper betle*). Kajian ini juga menghubungkan data linguistik dengan fungsi tanaman dalam budaya pengobatan tradisional masyarakat Melayu Deli. Dengan menggunakan metode deskriptif kualitatif dan pendekatan fonetik artikulatoris, hasil penelitian menunjukkan bahwa setiap nama tumbuhan memiliki ciri fonetik unik yang mencerminkan pola fonotaktik bahasa serta fungsi budaya yang menyertainya. Penelitian ini berkontribusi pada pelestarian khazanah linguistik dan etnobotani lokal.

**Kata kunci:** Fonetik segmental, Melayu Deli, Tanaman obat, Ekolinguistik



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## 1. Introduction

Segmental phonetics is a branch of phonetics that studies the smallest sound units in a language, namely phonemes, in terms of articulation and acoustics. In linguistic studies, phonetic research is not only formal, but can also be directed at cross-cultural studies, such as ecolinguistics. One path that is less explored is the phonetic analysis of the names of medicinal plants in regional languages, which not only store linguistic information, but also the cultural knowledge of the speaking community. The Deli Malay community spread across North Sumatra is known to have a strong traditional medicinal heritage. Plants such as cinnamon, gambir, lime, and betel are not only known as medicinal plants, but also part of their linguistic and cultural identity [1][2][3]. The names of these plants have a distinctive phonological structure and have been used for generations. This study focuses on the description of segmental phonetics which is then associated with the cultural meaning of the use of these plants. Through the study of articulatory phonetics, this study explores the relationship between the sound form of plant names and the sound image associated with traditional Deli Malay medicinal practices [4][5][6].

Expert opinions also support the relevance of this study. The importance of phonetics in accurately describing the sound structure of a language [7][8]. The naming of flora reflects local knowledge and the cultural system of the community [9][10]. That phonemes in local plant names carry culturally important

symbolic values [11]. A review of relevant literature shows a gap in the phonetic study of local plant names, especially in the context of Deli Malay. The symbolism of plants in Malay customs, but did not touch on the phonetic aspect [12]. Plant morphology in the Batak language, without touching on the pronunciation aspect [13]. Examined phonosemantic perception, but did not link it to the concrete articulation of phonemes [14]. Thus, this study formulates the problem of how the segmental phonetic structure of medicinal plant names in Deli Malay relates to their cultural value and medicinal function. The main objective of this study is to describe the segmental phonetic structure and explain the cultural value of the plant names in the context of the Deli Malay community [15][16].

## 2. Method

This study uses a qualitative descriptive method with an articulatory phonetic and ethnolinguistic approach. This study focuses on the segmental analysis of the names of medicinal plants in Deli Malay, namely cinnamon, gambir, lime, and sirih. Each lexicon is analyzed using the International Phonetic Alphabet (IPA) transcription, then phoneme segmentation is carried out to identify its phonological elements. The phonemes found are classified based on articulatory characteristics, such as place of articulation, manner of articulation, vowelity, and sonority level [17].

Data collection techniques are carried out through literature studies by reviewing dictionaries, linguistic journals, and related ethnobotanical literature [18][19]. Data analysis techniques include two stages, namely: (1) phonetic analysis to reveal the segmental structure of plant names, and (2) ethnolinguistic analysis to examine the relationship between phonetic structure and cultural function, such as medicinal benefits and how to use the plant in the traditions of the Deli Malay community. This approach allows for a comprehensive understanding of the relationship between language forms and traditional knowledge systems [20].

## 3. Result and Discussion

Lexicon	Phonetic Transcription	Latin name	Parts Used
Kayu manis	/'kaju 'manis/	Cinnamomum verum	Bark, leaves
Gambir	/'gambir/	Uncaria gambir	Leaves, gum/resin
Kapur	/'kapur/	Kapur sirih	Powder from burning shellfish
Sirih	/'sirih/	Piper betle	Leaves, young stems

### 1. Kayu Manis (/ 'kaju 'manis/)

Syllables	Phoneme	Phoneme Category	Articulation Description
ka	/k/	Voiceless stop consonants	Velar, oral
	/a/	Vocals	Front open
ju	/j/	Semibolal	Palatal, approaching the consonant
	/u/	Vocals	Round back height
ma	/m/	Nasal consonants	Bilabial, nasal
	/a/	Vocals	Front open
nis	/n/	Konsonan nasal	Alveolar, nasal
	/i/	Vokal	Tinggi depan
	/s/	Konsonan frikatif tak bersuara	Alveolar

In the healing tradition of the Deli Malay community, cinnamon plays an important role as one of the herbal plants believed to be able to lower body temperature, improve blood circulation, and provide a warming effect, especially during the rainy season. These properties make cinnamon the plant of choice in maintaining prime physical condition, especially in the face of extreme weather changes. The content of active compounds in cinnamon bark is believed to function as a mild stimulant, which not only helps overcome cold symptoms but is also believed to strengthen the body's immune system naturally without significant side effects [21].

The use of cinnamon in traditional medicine practices is carried out in various ways. The dried bark is boiled to produce extracted water which is drunk warm, either alone or combined with other spices such as ginger or cloves to increase therapeutic effectiveness. In addition, cinnamon leaves are also used as an ingredient in traditional steam baths known in local culture as steam baths or aromatherapy, to provide a relaxing effect and reduce muscle fatigue. This variety of uses shows that the Deli Malay community not only knows the pharmacological benefits of cinnamon, but also integrates it comprehensively into local wisdom-based health practices.

## 2. Gambir (/ˈgambir/)

Syllables	Phoneme	Phoneme Category	Articulation Description
gam	/g/	Voiced stop consonants	Velar, oral
	/a/	Vocal	Front open
	/m/	Nasal consonants	Bilabial, nasal
bir	/b/	Voiced stop consonants	Bilabial, oral
	/i/	Vocal	Front height
	/r/	Vibrating consonants	Alveolar, oral

In the context of the culture of medicine of the Deli Malay community, gambir has a high functional value as a multipurpose medicinal plant. This plant is widely known as a traditional medicine to treat mouth ulcers, accelerate the healing of external wounds, and strengthen gum tissue. Its role is not only limited to the health aspect, but also includes socio-cultural functions, namely as the main ingredient in the practice of chewing betel, a hereditary tradition that reflects the cultural identity of the Malay community. In this tradition, gambir is positioned as an important element that provides a dry sensation and functions as a natural antiseptic in the oral cavity [22].

The way gambir is utilized by the community is generally done by processing the dried plant sap into a solid form. This dry sap is then used in two main ways. First, it is mixed with lime and betel leaves and then chewed as part of the betel chewing ritual. This combination is believed to be able to maintain oral and gum health, as well as provide a refreshing effect. Second, gambir is also dissolved in clean water to be used as a mouthwash, especially in treating mouth ulcers or irritation in the oral cavity. These two methods show that the use of gambir is not only oriented towards physical healing, but also plays a role in maintaining the traditional order and social aesthetics of the Deli Malay community.

## 3. Kapur (/ˈkapur/)

Syllables	Phoneme	Phoneme Category	Articulation Description
ka	/k/	Voiceless stop consonants	Velar, oral
	/a/	Vocal	Front open
pur	/p/	Voiceless stop consonants	Bilabial, oral
	/u/	Vocal	Round back height
	/r/	Vibrating consonants	Alveolar, oral

In the traditional medicine culture of the Deli Malay community, betel lime plays a significant role as a natural antiseptic and a treatment for minor wounds, such as insect bites or skin irritations. In addition to its medical function, lime also holds symbolic value in cultural practices, especially as an important element in the betel chewing tradition. In this context, lime not only functions as a complement to chewing materials, but also symbolizes unification, harmony, and friendliness in the social interactions of the Malay community [23].

Lime is a symbol of acceptance in traditional ceremonies, weddings, and important meetings between residents. In practice, betel lime is used by mixing it with water to form a solution or paste. In traditional medicine, this paste is applied directly to skin that has small wounds, itching, or insect bites, because the alkali content in lime is believed to be able to reduce inflammation and prevent infection. Meanwhile, in the betel chewing tradition, lime is used in the form of a paste mixed with gambir and betel leaves, then chewed. This combination not only provides a distinctive sensation in the mouth, but is also believed to maintain

dental and oral health, as well as containing cultural values that are strongly embedded in the daily lives of the Deli Malay community.

#### 4. Sirih (/ˈsirih/)

Syllables	Phoneme	Phoneme Category	Articulation Description
si	/s/	Voiceless fricative consonants	Alveolar, oral
	/i/	Vocal	Front height
rih	/r/	Vibrating consonants	Alveolar, oral
	/i/	Vocal	Front height
	/h/	Voiceless fricative consonants	Glottis, oral

In the tradition of the Deli Malay community, betel is a plant that has important values both in the context of medicine and culture. As a natural antiseptic, betel plays a role in maintaining cleanliness and health, especially in oral care and body hygiene. Moreover, betel leaves also have strong symbolism as a symbol of purity and respect. This plant is widely used in various traditional rituals, including wedding ceremonies, where betel is part of the equipment for fresh flour, a symbolic series to ask for blessings and protection from bad things.

The use of betel in the daily lives of the Deli Malay community is very diverse. One of the most common ways is to chew betel leaves with gambir and betel lime in the betel chewing tradition. This practice not only aims to maintain oral health, but also becomes a symbol of togetherness and social acceptance. In addition, betel leaves are also often boiled to be used as drinking water or used externally, especially to wash sensitive areas of the body, including post-natal care for women. This practice shows how the Malay community uses local plants integrally, both for health needs and the preservation of cultural values.

#### 4. Conclusion

This study shows that the names of medicinal plants in Deli Malay not only contain a distinctive segmental phonetic structure, but also reflect the close relationship between language and local culture. Analysis of four plants, cinnamon, gambir, lime, and sirih, shows that each name has a phoneme configuration that reflects the typical phonotactic pattern of Deli Malay, and contains symbolic and practical values in the context of traditional medicine. For example, cinnamon is used to improve blood circulation and warm the body, while sirih reflects a symbol of purity and is used in various traditional rituals.

From an ecolinguistic perspective, this study confirms that language structure and cultural knowledge go hand in hand. Traditional medicine practices involving the processing and use of these plants are evidence that the naming of a flora is not merely arbitrary, but is loaded with functional content, symbolism, and social values. Thus, the segmental phonetic study of the names of these medicinal plants not only contributes to the preservation of regional languages, but also strengthens the documentation of traditional knowledge of the Deli Malay community that has been passed down orally.

#### References

- [1] Daulay E and Lubis T 2022 The Revitalization of Mandi Marpangir Tradition in Matondang Village, Padang Lawas Regency *Tradit. Mod. Humanit.* **2** 43–9
- [2] Akmal and Lubis T 2022 The Oral Tradition of Hoyak Tabuik in Pariaman, West Sumatera: An Anthropolinguistic Approach *Tradit. Mod. Humanit.* **2** 16–24
- [3] Sulistyowati H, Mahatmaharti A K and Lubis T 2022 Noun Composition in Narrative Passage *Tradit. Mod. Humanit.* **2** 1–7
- [4] Martina and Lubis T 2022 Swear Word in West Kalimantan Community *Tradit. Mod. Humanit.* **2** 14–27
- [5] Rahmawati, Sibarani R and Lubis T 2022 The Performance of Ruwatan in Javanese Community: An Anthropolinguistic Approach *Tradit. Mod. Humanit.* **2** 1–7
- [6] Tarigan K E and Lubis T 2022 Indexicality of Minyak Karo in North Sumatra : An Anthropolinguistic Perspective *Tradit. Mod. Humanit.* **2** 8–25
- [7] Natsir M, Saragih B and Lubis T 2022 Using Local Wisdom as a Protection from COVID-19 *Tradit. Mod. Humanit.* **2** 39–46
- [8] Wibowo S and Lubis T 2022 Naming Paya Badau at Taman Cadika Pramuka Medan: Semiotic Narative Analysis *Tradit. Mod. Humanit.* **2** 47–55
- [9] Saputra N, Lubis T and Setiawan F 2021 Politeness Strategies for the Speech Acts of Indonesian Language

- Education Students in Pidie Regency *Tradit. Mod. Humanit.* **1** 33–40
- [10] Khaira C N and Lubis T 2024 Language Kinship between Acehese and Tamiang Malay Language *Tradit. Mod. Humanit.* **4** 66–71
- [11] Abus A A, Purba M and Lubis T 2024 Bah Bolon River 1980-2023: The History of Pollution and River Used *Tradit. Mod. Humanit.* **4** 1–7
- [12] Tausya R S and Lubis T 2023 Performance Participation of Peucicap in West Aceh *Tradit. Mod. Humanit.* **3** 11–9
- [13] Narhan R, Solehatun P and Lubis T 2023 Districts Naming in Medan: An Anthropolinguistics Study *Tradit. Mod. Humanit.* **3** 33–41
- [14] Sinaga L D and Lubis T 2023 Toponymy of Village Names at Namo Rambe Sub-district: An Anthropolinguistic Study *Tradit. Mod. Humanit.* **3** 12–20
- [15] Sitorus N and Lubis T 2023 The Lexicon on Natural Knowledge of Umpasa in Batak Toba *Tradit. Mod. Humanit.* **3** 28–34
- [16] Harianja N and Lubis T 2023 Local Wisdom of Menegakgen Rumah Tradition at Tabuyung Village in Mandailing Natal *Tradit. Mod. Humanit.* **3** 54–9
- [17] Shaumiwyaty, Lubis M A, Lubis T, Dardanila, Purba A, Nasution T, Ramlan and Hasrul S 2020 Teacher performance toward students' mathematical literacy in teaching linear program mathematical models *J. Phys. Conf. Ser.* **1663** 012066
- [18] Andriany L, Lubis T, Amalia, Abus A F and Delima 2022 Shaping ethnobotanical tourism on the coastal landscape through Halobanese oral traditions at Banyak Island *IOP Conf. Ser. Earth Environ. Sci.* **1115** 012103
- [19] Abus A F, Lubis T, Abus A A, Saputra N and Abus N A A 2022 The role of local leader on food security campaign toward sustainable goals of agriculture in Simeulue Island *IOP Conf. Ser. Earth Environ. Sci.* **1114** 012091
- [20] Zulkarnain, Lubis T, Ramlan, Dardanila, Hasrul S, Shaumiwyaty and Saputra N 2021 Nandong as a culture-based effort to overcome food security toward COVID-19 pandemic situation in Simeulue Island *IOP Conf. Ser. Earth Environ. Sci.* **807** 022007
- [21] Abus A F, Lubis T and Abus N A A 2021 The landscape concept of environment in Taman Gajah Mada Medan *IOP Conf. Ser. Earth Environ. Sci.* **922** 012035
- [22] Abus A F, Lubis T, Saputra N and Delima D 2022 Ecotourism to improve the quality of Deli riverscape, Medan City, North Sumatra, Indonesia *IOP Conf. Ser. Earth Environ. Sci.* **1082** 012004
- [23] Abus N A A, Suriadi A, Lubis T, Abus A A and Abus A F 2024 Waste Bank management as an alternative community-based waste management strategy in Langsa City, Aceh Province *IOP Conf. Ser. Earth Environ. Sci.* **1375** 012007