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Research Article

THE IDENTIFICATION OF PHARMACOGNOSTIC ON THE EXTRACTION OF TRADITIONAL MEDICINE TO LANSAU OF MUNA ETHNIC OF SOUTHEAST SULAWESI PROVINCERuslin*¹, Henny Kasmawati¹, Sunandar Ihsan¹, Suryani¹, Nur Samsiar², Ardiyanti¹,
Zulfikar Tahir¹, Rahmat Darmawan¹, Elsa Alexander¹¹Fakultas Farmasi, Universitas Halu Oleo, Kendari Sulawesi Tenggara²Sekolah Tinggi Ilmu Farmasi Makassar, Sulawesi Selatan**Abstract**

Lansau is a traditional medicine of Muna ethnic which comprised of 44 kinds of plants that was inherited and believed to have a restorative power in healing kinds of diseases that are consumed based on the trust and the philosophy values by Muna ethnic. This study aimed to find out the characteristic of pharmacognostic on traditional plants of lansau comprised of determination of the plants, the experiment on macroscopic (experiments on organoleptic, the observation to the characteristic of morphology) and the experiment on microscopic. The sample of this study was the plant of lansau consisted of: bhangkudu, kamena-mena, patirangka, soni, katapi, ghontoghe, Libbho, kaghai-ghai, lansale, daru, sirikaya, Sandana, Kataba-tabako, Sambiloto, Kambhadawa, Lakoora, Kerseni, Kusambi, Bhea, Dana, Radhawali, Katimboka, Wonta, Bandara, Bumalaka, Kulidawa, Gondu, Patiwala ngkadea, Komba-komba, Ladha, Tongkoea, Kaghuse-ghuse, Kumbou, Kaembu-embu, Rogili, Rogo, Kalamandinga, Kula, Ntanga-Ntanga, Padamalala, Kumis Kucing, Kabote-Bote, Tulasi dan Kasape. The sample was obtained in the District of Bata Laiworu the Regency of Muna Province of southeast Sulawesi. The determination result which was conducted in LIPI Bogor was gained data of name of plants from 44 of the medicine used in the extraction of lansau. Result of macroscopic experiment on color, odor, taste and size of the plants was different from the outcome of plant's microscopic which has the type of stomata, trichomes, and the concentrate of different vessel.

Keywords: Lansau, experiment on pharmacognostic, determination, macroscopic, microscopic.**Corresponding author:****Ruslin,**

Fakultas Farmasi,

Universitas Halu Oleo,

Kendari Sulawesi Tenggara

*email: mahaleo241@yahoo.co.id

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INTRODUCTION:**Background**

Indonesia is a multiethnic country which comprised of 300 group of ethnics [1], one of the ethnics that could be found in the province of Southeast Sulawesi is Muna ethnic. Each of the ethnic belongs their own way of benefiting the plants for the purpose of the medication. The structure of the extraction, composition, the process of making/processing was conducted traditionally based on the practical experience that was inherited by the previously generation [2].

Lansau is a traditional extract of medicine that is believed by muna ethnic from long time ago which comprised of 44 kinds of traditional plants which were taken based on the believe on religious and philosophical value of munaese [3-5]. The development in inventing of the updated medicine which resourced from the nature, should be supported by scientific data concerning to the kinds of the plants, the compound content, and its benefits through the experiment of its pharmacology and other experiments. This study aimed at helping to identify the materials of the plants. The study on pharmacognostic is one of the simple techniques that could help in identifying the standardization of the material of the plants which comprised of macroscopic, microscopic, and phytochemical screening [6-9].

The purpose of this study is to find out the characteristic of pharmacognostic on traditional medicine of lansau utilized by Muna ethnic comprising of the determination of the plants, the experiment of macroscopic (Experiment of

organoleptic, the observation on the characteristic of morphology) and the examination on microscopic.

METHOD OF STUDY:

Method used in this study was descriptive non experimental. Sample of the study employed was lansau consisted of: bhangkudu, kamena-mena, patirangka, soni, katapi, ghontoghe, Libbho, kaghai-ghai, lansale, daru, sirikaya, Sandana, Kataba-tabako, Sambiloto, Kambhadawa, Lakoora, Kerseni, Kusambi, Bhea, Dana, Radhawali, Katimboka, Wonta, Bandara, Bumalaka, Kulidawa, Gondu, Patiwala ngkadea, Komba-komba, Ladha, Tongkoea, Kaghuse-ghuse, Kumbou, Kaembu-embu, Rogili, Rogo, Kalamandinga, Kula, Ntanga-Ntanga, Padamalala, Kumis Kucing, Kabote-Bote, Tulasi dan Kasape. The sample was gained from the District of BataLaiworu the Regency of Muna the Province of Southeast Sulawesi. The process of determination was conducted in LIPI Bogor and the examination of pharmacognostic was conducted in the laboratory of the faculty of Pharmacy of Universitas Halu Oleo.

RESULT AND DISCUSSION:*Result on the determination of the plants*

The determination of the plants was conducted in Herbarium Bogoriense, Lembaga Ilmu Pengetahuan Indonesia. The purpose of determination was to determine the validity of the sample utilized in this study. The following is the determination process that could be seen in table 1

Table : Result of Determination

| No. | Traditional Name | Indonesian | Types | Class |
|-----|------------------|-----------------|--|----------------|
| 1 | Bhangkudu | Mengkudu | <i>Morinda Citrifolia</i> L. | Rubiaceae |
| 2 | Kamena-mena | Bungan Nona | <i>Clerodendrum</i> sp. | Lamiaceae |
| 3 | Patirangka | Pacar Air | <i>Impatiens balsamina</i> L. | Balasanaceae |
| 4 | Soni | Dengen | <i>Dillenia</i> cf. <i>celebica</i> Hoogland | Dilleniaceae |
| 5 | Katapi | Kecapi | <i>Sandoricum koetjape</i> (Burn.f.) | Meliaceae |
| 6 | Libbo | Awar-Awar | <i>Ficus septica</i> Burn.f | Moraceae |
| 7 | Ghontoghe | Timo | <i>Kleinhovia hospita</i> L. | Malvaceae |
| 8 | Daru | Belimbing Wuluh | <i>Averrhoa bilimbi</i> L. | Oxalidaceae |
| 9 | Lansale | Godong Puser | <i>Hyptis capitata</i> Jacq. | Lamiaceae |
| 10 | Kaghai-ghai | Meniran | <i>Phyllanthus niruri</i> L. | Phyllanthaceae |
| 11 | Sirikaya | Srikaya | <i>Annona mucirata</i> L. | Annonaceae |
| 12 | Sandana | Angsana | <i>Pterocarpus indicus</i> Willd. | Leguminosae |
| 13 | Kataba-tabako | - | <i>Blumea</i> sp. | Compositae |
| 14 | Sambiloto | Sambiloto | <i>Andrographis paniculata</i> (Burm.f.) Nees. | Acanthaceae |
| 15 | Kambadhawa | Turi | <i>Sesbania grandiflora</i> (L.) Pers. | Leguminosae |
| 16 | Lakoora | Rumput Belulang | <i>Eleusine indica</i> (L.) Gaertn. | Poaceae |
| 17 | Kerseni | Kersen | <i>Muntingia calabura</i> L. | Elaeocarpaceae |
| 18 | Kusambi | Kesambi | <i>Schleichera oleosa</i> (Lour.) Merr. | Sapindaceae |
| 19 | Dana | Alang-alang | <i>Imperata cylindrica</i> (L.) Raeusch. | Poaceae |

Continue.....

| | | | | |
|----|------------------|------------------------|--|----------------|
| 20 | Bhea | Pinang | <i>Areca catechu</i> L. | Arecaceae |
| 21 | Radhawali | Brotowali | <i>Tinospora crispa</i> (L.) Hook.f. & Thomson | Menispermaceae |
| 22 | Katimboka | Paku Simbar Layangan | <i>Drynaria sparsisora</i> (Desv.) T. Moore | Polypodiaceae |
| 23 | Kulidawa | Jati | <i>Tectona grandis</i> L.f. | Lamiaceae |
| 24 | Kumbou | Nangka Hutannya; Tarap | <i>Artocarpus teysmannii</i> Miq. | Moraceae |
| 25 | Patiwala Ngkadea | Tekelan | <i>Lantana camara</i> L. | Lamiaceae |
| 26 | Ladha | Lengkuas | <i>Zingiber</i> sp. | Zingiberaceae |
| 27 | Kaghuse-guse | - | <i>Dalbergia stipulacea</i> Roxb | Leguminosae |
| 28 | Gondu | Berenuk; Maja | <i>Crescentia cujete</i> L. | Bignoniaceae |
| 29 | Komba-komba | Tembelean | <i>Chromolaena odorata</i> Miq. | Compositae |
| 30 | Bumalaka | Jambu Biji | <i>Psidium guajava</i> L. | Myrtaceae |
| 31 | Wonta | - | <i>Scleria laevis</i> Retz | Cyperaceae |
| 32 | Sau Bandara | Ketepeng Cina | <i>Senna alata</i> Roxb. | Leguminosae |
| 33 | Tongkoea | Pulai | <i>Alstonia scholaris</i> R.Br. | Apocynaceae |
| 34 | Kumis kucing | Kumis kucing | <i>Orthosiphon aristatus</i> Blume | Lamiaceae |
| 35 | Rogili | Sirih | <i>Piper betle</i> L. | Piperaceae |
| 36 | Padamalala | Kumis kucing | <i>Cymbopogon citratus</i> DC. | Poaceae |
| 37 | Ntanga-ntanga | Jarak | <i>Jatropha curcas</i> L. | Euphorbiaceae |
| 38 | Kasape | - | <i>Flemingia strobilifera</i> L. | Leguminosae |
| 39 | Kalamandinga | Petai cina | <i>Leucaena leucocephala</i> Lam | leguminaceae |
| 40 | Rogo | Buas-buas | <i>P. cardifolia</i> | verbenaceae |
| 41 | Tulasi | Selasih | <i>Ocimum tenuiflorum</i> L. | Lamiaceae |
| 42 | Kabote-bote | | <i>Ruellia tuberosa</i> L. | Achantaceae |
| 43 | Kaembu-embu | Sembung | <i>Blumea balsamifera</i> L. | Compositae |
| 44 | Kula | Sirih | <i>Artocarpus altilis</i> | Moraceae |

The Examination of Pharmacognostic

The Examination of Macroscopic

a. The Examination of organoleptic

The examination of organoleptic was conducted could be seen in table 2.

Table 2: The Observation of Organoleptic properties.

| No. | Plants | Parts of plants utilized | Colours | Odor | Taste |
|-----|---------------|--------------------------|----------------|---------------------------------|----------------------|
| 1. | Bhengkudu | Fruit | Dark Green | Distinctive Aroma and sharp | concentrated |
| 2 | Kamena-mena | Leaves | Dark Green | Distinctive Aroma and sharp | tasteless |
| 3. | Patirangka | Leaves | Light Green | Distinctive Aroma and sharp | tasteless |
| 4. | Soni | leaves | Dark Green | Distinctive Aroma and sharpless | tasteless |
| 5. | Katapi | leaves | Dark Green | Distinctive Aroma and sharpless | bitter |
| 6. | Libbo | leaves | Dark Green | Distinctive Aroma and sharpless | bitter and tasteless |
| 7. | Ghontoghe | leaves | Light Green | Distinctive Aroma and sharpless | tasteless |
| 8. | Daru | leaves | Light Green | Distinctive Aroma and sharp | tasteless |
| 9. | Lansale | leaves | Light Green | Distinctive Aroma and sharp | tasteless |
| 10 | Kaghai-ghai | leaves | Light Green | Distinctive Aroma and sharpless | tasteless |
| 11 | Sirikaya | leaves | Light Green | Distinctive Aroma | bitter |
| 12 | Sandana | leaves | Green | Distinctive Aroma and sharpless | Kelat and bitter |
| 13 | Kataba-tabako | leaves | purplish green | Distinctive Aroma and sharp | bitter |
| 14 | Sambiloto | Herbs | green | Distinctive Aroma and sharpless | bitter |
| 15 | Kambadhawa | leaves | dark green | Distinctive Aroma and sharpless | bitter |

Continue.....

| | | | | | |
|----|---------------------|-----------|----------------------|---------------------------------|--------------|
| 16 | Lakoora | Herbs | dark green | Odorless | tasteless |
| 17 | Kerseni | leaves | dark green | sharp aroma | bitter |
| 18 | Kusambi | leaves | green | Distinctive Aroma | tasteless |
| 19 | Dana | Rhizome | pale yellow | no distinctive odor | sweet |
| 20 | Bhea | seeds | brownish | Odorless | Kelat |
| 21 | Radhawali | stem | green gravishness | Odorless | bitter |
| 22 | Katimboka | stem | yellow brownish | Odorless | taste kealt |
| 23 | Komba- komba | leaves | dark green | Distinctive Aroma and sharp | bitter |
| 24 | Bumalaka | leaves | light green | distinctive, odourless | bitter |
| 25 | Ladha | Rhizome | yellow reddish | Distinctive Aroma and sharp | hot |
| 26 | Patiwala Ngkadea | leaves | green | Distinctive Aroma and sharp | bitter |
| 27 | Tongkoea | leaves | green | Distinctive Aroma and sharpless | bitter |
| 28 | Sau Bandara | leaves | green | distinctive, odourless | bitter |
| 29 | Kulidawa | Skin stem | dark green | Distinctive Aroma | tasteless |
| 30 | Kumbou | skin stem | dark green | Odorless | bitter |
| 31 | Kaghuse- ghuse | leaves | green | Distinctive Aroma and sharpless | bitter |
| 32 | Gondu | leaves | dark green | Distinctive Aroma and sharpless | bitter |
| 33 | Wonta | Herbs | green | Odorless | tasteless |
| 34 | Kumis kucing | leaves | dark green | Distinctive Aroma and sharpless | |
| 35 | Rogili | leaves | dark green | Distinctive Aroma and sharp | somewhat hot |
| 36 | Padamalala | leaves | light green | Distinctive Aroma and sharp | somewhat hot |
| 37 | Ntanga- ntanga | leaves | light green | Distinctive Aroma and sharpless | bitter |
| 38 | Kasape | leaves | light green | Distinctive Aroma and sharpless | bitter |
| 39 | Kalamandin ga | leaves | ligh green | Distinctive Aroma and sharp | somewhat hot |
| 40 | Rogo | Leaves | light green | Distinctive Aroma and sharp | somewhat hot |
| 41 | Tulasi | Leaves | light green | Distinctive Aroma and sharp | somewhat hot |
| 42 | Kabote-bote | Leaves | light green | Distinctive Aroma and sharpless | somewhat hot |
| 43 | Kaambu- embu | Leaves | light green | Distinctive Aroma and sharpless | tasteless |
| 44 | Kula | leaves | light green | distinctive aroma | bitter |

b. The Observation on Morphology characteristics

Result on the observation on the characteristic of morphology could be seen in table 3.

Table 3: The Result on the Observation of Morphological characteristic

| No. | Plants | The Outcomes from the Observation |
|-----|----------------|---|
| 1. | Bhangukudu | Fruit is oval or round, the color is green yellowish, flesh of fruit is thick, round seeds, and fruit is shiny and jagged. |
| 2 | Kamena-mena | Single leave, stem, long oval shaped, pointed tip, flat surface, diameter of the leaves is 6-12 cm and the width is 5-8 cm. the color is dark green, the protected leaves is white, length 2-3 cm. |
| 3. | Patirangka | Single leave, big, long leave, jiggged edge, pointed tip, leaf bone pinnate. The bottom part forming a root rosette leaf width is 2 to 4 inch. The base of the leaf is sharp and pointed. |
| 4. | Soni | Single leaf, long oval leaf, length 20-45 cm and width 8-19 cm, winged leaf stalk. the color of leaf is shiny green, winged, shiny color of the leaves, edge of the leaf is jiggged, parallel, round tip, the surface of the leaves is shiny. |
| 5. | Katapi | Intermittent compound leaves, threaded up to 18 cm, pinnate leaves, oval, somewhat round tip, light green on top, dark green at the bottom. |
| 6. | Libbo | Face to face leaves, threaded to 2,5-5 cm, oval leaves, narrow edge of leaves, dull tip of leaves, color of the leaves are shiny green, diameter of the leaves is 6-12cm. Colourful in both side of the leaves due to its pale color dominated the leaves. |
| 7. | Ghontoghe | Single leaf, intermittent, round shape of leaf, yellow |
| 8. | Daru | Intermittent leaves, odd with the number, short small leaves, oval, sharp round tip, flat edge, length 2-10 cm, width 1-3 cm, light green low surface. |
| 9. | Lansale | Long oval leaves, jiggged sides, hairy long leaves in the surface. |
| 10 | Kaghai-ghai | intermittent compound leaves, light green colored, number of small leaves from 15-24, oval shaped, flat edge surface, round tip, dull tip, length to 1.5 cm, width to 7 mm. |
| 11 | Sirikaya | single leaf, interspaced ellipse long leaf, dull tip, sharp short tip, length to 6-17 cm, width 2.5-7.5 cm, flat surface, hairless, the surface of the leaves is shiny green |
| 12 | Sandana | fin intermittent leaves, interspace of odd number of leaves, oval round shaped, oval-shaped, length 4-12,5 cm and width 2-6,5 cm, the edge part of the leaf is sharp, flat surface. Edge part is round, flat surface. Light green colored in the surface, hairless. Major bone of the leaves is tightly hairy, short. |
| 13 | Kataba-tabako | Single and oval-shaped. Sharp long edge tip. Fine bone leaf, hard surface on the leaf. diameter of the leaf is 3-5 and width 9-12 cm. |
| 14 | Sambiloto | Single face to face leaves, lancet to likely lance. Sharp edge and flat surface of leaves. Fin bone of leaves, length of the elevate averages to 3-12 and the width is 1-3 cm. smooth surface on the leaves, thick. |
| 15 | Kambadhaw a | Intermittent double leaves (<i>bippinatus</i>), length of the stem of leaves 20-30 cm, and each of the stem consists of 20-40 pairs of small leaves. Lancet shaped of the leaves' tip is opened, round tip, fin bone of the leaves, flat surface on the leaves, hard surface. |
| 16 | Lakoor | The stem is round shaped, slippery, long straight stem, the size of the growth stem is 12-60 cm. dark green colored. single leaf with long straight line, round tip, open surface leaves, slippery surface and dark green colored, the blossom growth straightly or tend to growth at the side edge. Length of the seeds averages to 2.5-15 cm and white colored. |
| 17 | Kerseni | Single leaf with interspace, oval shaped. Smooth hair of surface, fin bone. |
| 18 | Kusambi | Intermittent leaf, even number leaves ad fin, waved leaf's side, hairless surface. Length of the leaf is 11-25 cm and the width is 2-6 cm. |
| 19 | Dana | Dana could be planted and growth straightly to the height of 0.5-1.5 m. Its rhizome coloured yellowish and bit pale long line, wild and unbreakable, the diameter of its rhizome is 1-4 mm, joint spaces, the part of the bone is appealed. |
| 20 | Bhea | Strong and hard texture triangle shaped short and round tip, length of the leaves 15 mm sampai 30 mm, the surface coloured brownish and greenish. |
| 21 | Radhawali | The length of the plant reached to 2-5 m, soft and wet stem. The surface of the stem is spotted and sided. layer surface lies in on the leaves |
| 22 | Katimboka | this is a type of strong and hard tree, the surface of the tree is hairy of reddish brown, the stem is hanging based on its characteristic |
| 23 | Komba-komba | Its leaf is ovale-shaped, the bottom part is wider, round tip, length of the leaf is 6-10 cm and the width is 3-6 cm. the edge of the leaves is jiggged, face to its peak, the position of the leaves is face to face. The bunch of the bossom lies in its branch (<i>terminal</i>) |
| 24 | Bumalaka | single leaf, short stem, length of the stem is 0,5-1 cm, the leaf is oval shaped and long, length of the leaves is 5-13 cm, width 3-6 cm, the side of the leaves tend to rolled upper position, upper surface is slippery, dark green colored, the bonnes is appealed around its bottom position, fine bonne. |
| 25 | Ladha | slim rhizome, branched tip, upside oval-shaped, in each of the branch there was found a |

- line in the hole. the outer layer of the part is coloured brown yellowish, long, free fibre, short bench and fibered
- 26 Patiwala Ngkadea Kind of a clump plant height 0,5–1,5 m. the characteristic of the colour is brown, hard and spotted dark on its surface. The leaf is green oval-shaped and jiggged. The surface of the leaf is hard as it is hairy. Face to face leaf and the bones is fin, the stem is hairy and spined, the length is less than 2 m. the leaf is rough, aromatic and centimeter length, branches, square shaped. single leaf, oval-shaped, jiggged leaf, hairless, rough surface,
- 27 Tongkoea Waved and spotted skin of stem, thick to 3 mm. outer surface is rough, flat, peel able, fissures, break-coloured, and somewhat fibred.
- 28 Sau Bandara Intermitted leaf, dark and light green coloured of the leaves, oval-shaped, length 3-15 cm, width 2.5-9 cm, tip of the leaf is dull, peak of the leaf is angled, edge of the leaf is flat. Umber of the stem is 2 cm. bone of the branch is appealed at the bottom side of the surface.
- 29 Kulidawa single leaf, weary, dark-brown coloured, ovaled-shaped, length of the leaves is 20-40 cm, width 10-20 cm, sharp round tip, edge of the leaf is flat, bone of the leaf is jiggged, appealed at the surface, hairy,
- 30 Kumbou Kumbou is kind of a big tree plant sized 30-40 m, surface of the tree is crusted, oval-shaped, the stem is exuded, the tip of the peak and the leaf are dull, the surface of the leaf is soft and hairy, fin, tap root.
- 31 Kaghuse-ghuse dintermittent leaf, the colour of the leaves is light green, oval-shaped, length 1-3 cm, width 1-2 cm, tip of the leaf is round, peak of the leaf is round, flat, stem of the leaf 0,5 cm. Bone of the branch is appealed at the bottom of the surface.
- 32 Gondu the habitat of the plant is an annual tree with the height 10-15 m. the stem is wooded, round, branches, yellowish-white coloured, leaves organized intermitted and fin, each of the leaves is oval-shaped, the tip is sharp, length 10–15 cm, short stem, single bossom out of its branch, oval, the seeds is square and brown coloured..
- 33 Wonta Wonta is a monocotile plant, and its habitat is in a grassy area, its stem is wet, sharp and hollowed. The surface is rough and hairy. The growth is up straight (*erectus*). Single leaf with long sharp leaf, length 30 cm, wide 2-4 cm, edge of the leaves flat, dark green colored, greenish-yellow colored, the seeds are colored yellow and intermitted.
- 34 Kumis kucing Kinds of a shrubs plant, straightly growth, rooted, height 2 m. square stem, oval-shaped leaves, lancet, sharp, or dull at the tip part, size of the leaf is 1–10 cm wide 7,5 mm–1,5 cm, the veins are small, hair less, spotted on the surface.
- 35 Rogili Shrubs and vines, height 5-10 meter. The shape of the leaves is thin, like a heart, the stem is likely long, flat, and sharp. The peak of the leaves is hollowed, the bones are fine, the flies is thin, the surface of the leaf is green colored and slippery. Hairless at the bottom side of the bones and short hairy.
- 36 Padamalala Plant of is of green colored and stemmed. The leaves get along with the stem; the leaves are thick, long, and sharp. it has a shape like a ribbon, asthiri aromatic, when the leaves are pressed. rough and sharp tip of the leaves, arranged position, big leaves on the big stem, length of leaves 50-100 cm, wide 2 cm. flesh of the leaf is thin, smooth hairy at the bottom of the surface.
- 37 Ntanga-ntanga Shrubs plant, height 1-7 m, unarranged branch. Latex branch. single leaf, wavy, curved, the leaves fingered to 5-7 main leaves, green colored, the color of the surface is pale compare to the upper surface length 6-15 cm length of the stem 4-15 cm
- 38 Kasape shrub plant, height 0,5-1 m, single leaf, face to face leaf, boned and fin, oval-shaped, round peak, light green coloured, flesh of the leaf is thin, smooth hairy on the surface, length of the leaf is 5-10 cm and wide 3-6 cm
- 39 Kalamandin ga small plant and classified in shrub plant, height to 2-10 m, rough stem, small size, cylindrical, tight hair, intermittent leaf, double fin, perfect, small leaf comprised of memiliki batang pohon keras dan berukuran tidak besar serta batang bulat silindris dan bagian ujung berambut rapat. Daun majemuk terurai dalam tangkai, menyirip genap ganda dua sempurna, anak daun kecil-kecil terdiri dai 5-20 pairs of leaves, lancet shaped, sharp, flat, length of the leaves is 6-21 mm and wide 2-5 mm
- 40 Rogo Medium kind of plant, height to 7 m. dark green colored, smooth hair, long shape, round and sharp tip, jiggged, thick flesh of the leaf, strong odor, width of the leaf around 3-6 cm and the length is 8 cm.
- 41 Tulasi Shrub plant, height to 60 cm to 300 cm. the colour of the leaf is brown-greenish, aromatic odor, somewhat hot, shape of the leaf is round, and oval, dull at the tip, fin bone, length of the leaf is 2,5 cm sampai 7,5 cm and the wide is 1 cm to 2,5 cm
- 42 Kabote-bote seasonal plant, height 0,4-0,9 m, single leaf, face to face, shaped round, sharp at the tip, length of the leaf is 6-18 cm wide 3-9 cm, the surface is slippery the color of the leaf is

- 43 Kaembu-embu dark green. thematic plant height to 0,4-0,9, straight stem, triangle, green color, single leaf, crossed at the front, round shape, round tip, round peak, jugged edge, length of the leaf is 6-18 cm, wider 3-9 cm, slippery, fine bone, the flesh of the leaf is thin, light green colored.
- 44 Kula height is 20 meter, the wood is smooth and rough fibred. The leaf is colored yellowish. The leaves are shaped wider and fingered, the tip of the leaf is sharp, length of the leaves are 20-30 cm, flat, wide face to the peak of the bosom of single plant.

The examination of microscopic

Table4: Result on the observation of microscopic

| No. | Plants | parts of plants | Result of Observation | | |
|-----|------------------|--|--|----------------|---|
| | | | Stomata | Trichoma | vessel line |
| 1. | Bhangkudu | fruit | testa, epikarp, and endokarp. | | |
| 2 | Kamena-mena | leaf | Anomositic | Glandular | Radial |
| 3. | Patirangka | leaf | Anomositic | Nonglandular | - |
| 4. | Soni | leaf | Anisostic | Nonglandular | open-cholateral |
| 5. | Katapi | leaf | Anomositic | Nonglandular | - |
| 6. | Libbo | leaf | Parasitic | | open -cholateral |
| 7. | Ghontoghe | leaf | - | Nonglandular | Bicolateral |
| 8. | Daru | leaf | Anomostic | Nonglandular | consentris amphikibril |
| 9. | Lansale | leaf | Parasitik | Nonglandular | consentris amphikibril |
| 10 | Kaghai-ghai | leaf | - | - | consentris amphivasa |
| 11 | Sirikaya | leaf | Anomositic | Nonglandular | open cholateral |
| 12 | Sandana | leaf | Parasitic | Glandular | vessel system |
| 13 | Kataba-tabako | leaf | Anomositic | Nonglandular | closed cel of leaf of <i>Hellebrous</i> |
| 14 | Sambiloto | Herbs | Bidiasitic | Nonglandular | open-cholateral |
| 15 | Kambadhawa | leaf | Anisositic | Glandular | Amphikribal |
| 16 | Lakoora | Herbas | Diasitic | Glandular | Cholateral |
| 17 | Kerseni | leaf | Parasitik | Nonglandular | Amphivasal |
| 18 | Kusambi | leaf | Anisositic | Nonglandular | closed-cholateral |
| 19 | Dana | Rhizome | - | | open-cholateral |
| 20 | Bhea | seeds | Endosperm, mesokarp, endokarp, seeds of aleuron, canal of noktah | | |
| 21 | Radhawali | Stem the vessel lies inside the layer/endoderm of scheleencim, | | | |
| 22 | Katimboka | stem | | | concentric amphikribal |
| 23 | Komba-komba | leaf | Anomositic | Nonglandular | open cholateral |
| 24 | Bumalaka | leaf | - | Nonglandular | Idioblas |
| 25 | Ladha | Rhizome | | | open-cholateral |
| 26 | Patiwala Ngkadea | leaf | Diasitic | thron trichoma | open-cholateral |
| 27 | Tongkoea | leaf | | | Bikolateral |
| 28 | Sau Bandara | leaf | Parasitic | Papilla | opebn-cholateral |
| 29 | Kulidawa | skin, stem | | | open-cholateral |
| 30 | Kumbou | skin, stem | Diasitic | Multiseluler | closed-cholateral |
| 31 | Kaghuse-ghuse | leaf | Aktinositic | Multiseluler | Radial |
| 32 | Gondu | leaf | Anomositic | Nonglandular | Radial |
| 33 | Wonta | Herbs | Parasitic | | concentric amphikibril |
| 34 | Kumis kucing | leaf | Anomositic | Nonglandular | open=cholateral |
| 35 | Rogili | leaf | Anomositic | Glandular | open-cholateral |

| | | | | | |
|----|---------------|------|------------|--------------|------------------------|
| 36 | Padamalala | leaf | Anisositic | | concentric amphikibril |
| 37 | Ntanga-ntanga | leaf | Parasitic | Nonglandular | consentris amphikibril |
| 38 | Kasape | leaf | Parasitic | Glandular | consentris amphikibril |
| 39 | Kalamandinga | leaf | Diasitic | Nonglandular | open-cholateral |
| 40 | Rogo | leaf | Anomositic | Nonglandular | concentric amphikibril |
| 41 | Tulasi | leaf | Diasitic | Nonglandular | |
| 42 | Kabote-bote | leaf | Diasitic | Nonglandular | concentric |
| 43 | Kaambu-embu | leaf | - | Nonglandular | open-cholateral |
| 44 | Kula | leaf | - | Nonglandular | open-cholateral |

CONCLUSION:

The result of the identification of pharmacognostic and the determination of 44 kinds of lansau, it could be concluded that:

1. The special character of lansau lies from its number kinds of plants in one extraction
2. Plants utilized is known as the medical for the community of Indonesia
3. Most of the utilized from the plants are the leaves, and some parts of the stem and skin, rhizome and herbs.

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