



Traditional Use, History of Consumption, and Cultural Context

Leptocarpha rivularis DC. (Asteraceae)

Palo Negro / Kudü Mamëll / Ire-Ire

Leptocarpha rivularis DC., commonly known as **palo negro**, and traditionally referred to in Mapuche ethnobotany as **kudü mamëll** or **ire-ire**, is a plant species native to southern Chile, particularly within the historical territory of the Mapuche people, including the Araucanía region and surrounding areas.

Historical, Linguistic, and Knowledge Transmission Context

Traditional Mapuche knowledge related to medicinal plants developed and was transmitted **primarily through oral tradition over centuries**, as the Mapudungun language **did not have a standardized written form until the work of missionaries, chroniclers, and naturalists**, mainly from the **mid-19th century onward**.

As a result, the earliest written records documenting the traditional use of Mapuche medicinal plants—including *Leptocarpha rivularis*—are largely found in:

- missionary and ethnographic writings,
- Mapudungun–Spanish dictionaries,
- botanical and ethnographic texts, and
- compilations produced by researchers working in Araucanía and southern Chile during the 19th and 20th centuries.

This historical reality explains why **written documentation appears relatively late**, without implying an absence of prior use, and reflects the oral nature of traditional Mapuche knowledge systems.

Modern Institutional Recovery and Documentation

Only in **recent decades** have systematic **public policies and academic initiatives** been implemented in Chile to recover, document, and validate Indigenous cultural heritage, including ethnobotanical knowledge, traditional medicine, and historical uses of medicinal plants.

As a consequence, there is now a **growing body of verified information** produced by universities, public institutions, heritage repositories, and academic research programs. This contrasts with earlier periods, when such knowledge could only be found in fragmented form within specialized botanical texts or missionary accounts.



Traditional Form of Consumption (Food-Form Equivalence)

Ethnobotanical and ethnomedical sources consistently indicate that the **traditional use and historical consumption** of *Leptocarpha rivularis* occurred primarily through **aqueous infusions**, prepared from aerial parts of the plant, particularly the leaves.

This method of preparation corresponds to a **food-like form of consumption**, comparable to herbal teas and tisanes traditionally accepted as foods, and was commonly consumed **before or after meals** as digestive support.

There is no historical evidence of:

- ceremonial or ritualized extreme use,
- toxic applications, or
- consumption in concentrated, purified, or chemically modified forms.

Documented Traditional Uses

Within Mapuche traditional medicine and regional folk medicine of southern Chile, *Leptocarpha rivularis* has historically been used in relation to **digestive well-being**, including:

- relief of stomach discomfort,
- support for indigestion and dyspepsia,
- reduction of bloating and intestinal gas,
- use as a digestive and carminative agent.

These uses are described consistently across historical dictionaries, ethnobotanical studies, academic theses, and institutional publications, demonstrating a **recurrent, coherent, and culturally defined pattern of traditional consumption**.

Cultural Dose Limitation

The traditional context of use inherently imposed **natural limitations on exposure**, as:

- aqueous infusions provide **limited solubility** of plant constituents,
- the bitter organoleptic profile discourages excessive intake, and
- consumption was **occasional and functional**, rather than chronic or high-dose.

These factors are relevant when assessing **historical dietary exposure** and safety.

Historical Continuity and Geographic Containment

The presence of stable vernacular names in Mapudungun (kudü mamëll / ire-ire), their written documentation since the early 20th century, and their continued appearance in subsequent



academic literature support a **continuity of traditional use**, transmitted across generations within a **specific geographic and cultural context** (Araucanía and southern Chile).

There is no evidence of widespread or global traditional use, indicating a **culturally and geographically contained pattern of consumption**, a characteristic commonly observed in botanicals later evaluated under modern regulatory frameworks.

Absence of Historical Adverse Use Reports

Based on a review of available ethnobotanical, patrimonial, and academic sources, **no historical reports of serious toxicity or severe adverse effects** associated with the traditional use of *Leptocarpha rivularis* as an aqueous infusion were identified.

Ethnobotanical–Phytochemical Plausibility

From an ethnobotanical perspective, the traditional digestive and carminative use of *Leptocarpha rivularis* is consistent with phytochemical profiles commonly found in plants used for similar purposes, including **phenolic compounds and flavonoids**, which are widely present in commonly consumed plant-derived foods and beverages.

Data:

Among the earliest modern botanical descriptions, we find those made by **Professor Claudio Gay** in his book *Physical and Political History of Chile*, **Volume IV, page 117 (1859)**.

(<https://books.google.com/cu/books?id=ZLJhAAAACAAJ&hl=es&pg=PA117#v=onepage&q&f=false>)

In the *Mapuche–Spanish Dictionary*, authored by **Friar Félix José de Augusta** in **1906, page 69**, the correct phonetic pronunciation of *Leptocarpha rivularis* in the Mapuche language is described as **“Kudumamell.”**

(<https://geografiauns.wordpress.com/wp-content/uploads/2019/05/augusta-felix-jose-de-1916a.pdf>)

In the **1930** book by **Ernesto Wilhelm de Mösbach** entitled *Life and Customs of the Araucanian Indigenous People in the Second Half of the 19th Century*, **page 90**, the use of *Leptocarpha rivularis* is described as a **purgative**.

(https://benmolineaux.github.io/bookshelf/PascualCona.pdf?utm_source=chatgpt.com)

In the compilation by **Professor Martin Gusinde**, *Medicinal Plants Recommended by the Araucanian Indians*, **page 566, No. 78 (1936)**, a recommendation is found for the **consumption of this shrub to treat stomach ailments**.

(<http://www.jstor.org/stable/40448043>)

In **1955**, **Ernesto Wilhelm de Mösbach**, in his book *Indigenous Botany of Chile*, **page 111**, indicates that **Palo Negro (*Leptocarpha rivularis*)** is used to treat **stomach disorders, digestive complaints, and as a carminative**.

(<https://www.memoriachilena.gob.cl/archivos2/pdfs/MC0027380.pdf>)



The book *Mapuche Woman*, pages 41 and 73 (1985), reports its **traditional use for the treatment of liver and stomach problems**.

(<https://www.memoriachilena.gob.cl/archivos2/pdfs/MC0051353.pdf>)

At the international level, the *Latin American and Caribbean Bulletin of Medicinal and Aromatic Plants*, pages 212, 214, and 215 (2020), highlights its **traditional use in Chile** and emphasizes its **potential antibacterial properties**, as well as its use for the **treatment of severe gastric ailments**, among other applications.

(<file:///C:/Users/Esteban/Downloads/54-Texto%20del%20articulo-93-2-10-20200831.pdf>)

Manual para el dialogo de saberes, Ministerio de las Culturas, Gobierno de Chile, pages 7, 2019. “It serves both the body and the soul.” It helps with indigestion, the accumulation of gases, menstrual dysfunctions, reduces cholesterol, and diabetes. **PEPILKAN LAWEN** (preparation): the leaves, stems, and flowers are used. **PUTOKUAL LAWEN** (infusion): indicates the traditional form of preparation as an infusion.

(<https://www.cetsur.org/wp-content/uploads/2019/05/MANUAL-CURADORAS-OK-17X24.pdf>)

National Cultural Heritage Service (Regional Thesaurus)

The National Cultural Heritage Service of Chile recognizes *Leptocarpha rivularis* and describes its traditional use within a cultural heritage context (the leaves used as stimulants and carminatives in cases of dyspepsia, indigestion, and gas), with bibliographic references cited from the National Museum of Natural History.

(<https://www.tesauroregional.cl/terminos/2074>)

TRANSLATION OF THE CERTIFICATE

Regulatory Context and Purpose of the Certificate

*This certificate is provided as supporting cultural and institutional documentation to substantiate the **existence of documented traditional use** of *Leptocarpha rivularis* within Mapuche medicinal practices. For the purposes of FDA and GRAS evaluation, this document is **not submitted as evidence of therapeutic efficacy or clinical performance**, but rather as **historical and ethnocultural context** demonstrating long-standing oral use in traditional, food-like preparations. Accordingly, the certificate is included to complement the overall **history of use and safety assessment**, while all conclusions regarding safety under the intended conditions of use are supported independently through compositional characterization, exposure assessment, and modern toxicological data.*



CERTIFICATION THAT PALO NEGRO “LAWEN” IS A MAPUCHE TRADITIONAL MEDICINAL PLANT

It is hereby certified that the **Unit of Culture and Education of the National Directorate of CONADI** attests that the Chilean shrub known as “**ME LAWEN**” or “**Palo Negro**” or “**Kurrü Mamüll**” is a **medicinal plant of traditional and ancestral Mapuche use**.

Accordingly, it is a highly significant plant protected by the Mapuche people due to its curative properties, and among the Mapuche agents who use this medicinal plant in the preparation of healing remedies are **Machis** and **Lawentuchefes**, among others.

It is noted that, within the framework of the **Indigenous Cultural Heritage Management and Protection Program** of the Unit of Culture and Education of the National Directorate of CONADI, its guidelines include the strengthening of the traditional ancestral medicine of Indigenous peoples, due to the importance of this cultural knowledge for the recognition, preservation, and use of the heritage of Indigenous peoples.

BACKGROUND

Ms. **MATILDE PAINEMIL**, a Mapuche knowledge holder and artisan from the **Niagara sector, Padre Las Casas commune**, was consulted regarding the properties of the plant known as **PALO NEGRO**, and stated the following:

“It is a very ancient shrub with great healing power; therefore, this plant must be protected. This plant grows in wetlands and where sunlight reaches it, and it is highly sought after by Machis and Lawentuchefes.”

Mr. **JUAN ÑANCULEF HUAQUINAO**, historian and **Kimche** (Mapuche sage), states that **Palo Negro**, also known as “**ME LAWEN**” in Mapudungun, due to its strong scent, is an ancestral medicinal shrub highly protected by the Mapuche people because of its great healing power, and is widely used by **Lawentuchefes** to treat stomach pain. Its properties are currently being scientifically investigated, particularly its **anticancer properties**.

Through online research, reference was found to the contribution made to traditional medicine by **Mr. Rolando Châteauneuf** (Economist, currently dedicated to Traditional Medicine), who states the following:

“It is emphasized in its promotion that this plant possesses a powerful anticancer agent called **leptocarpin**, a substance that acts on diseased cells, restoring them to their normal state. Its effect would be similar to that of organic germanium found in species of the genus *Aloe*.”

(www.rochade.cl/sobre-el-autor/)



Further research on the **Palo Negro** shrub in relation to its curative qualities indicates that it has been well received in cases of **recently diagnosed cancer**, where recovery may be achieved, and in cases of **advanced cancer**, it may improve the patient's quality of life, with reports of total recovery in some cases.

In addition to treating cancer, this shrub is said to be effective in addressing **menstrual disorders, diabetes, indigestion, and gas**, among other conditions. It is prepared **as an infusion and taken throughout the day**. Another source of information indicates that the leaves of this shrub are **stimulant and carminative**, are used in cases of **dyspepsia**, and may also help **reduce cholesterol**.

It is also recommended for **cancer prevention**, where it is again compared to the effects of *Aloe vera*. These species are considered preventive and curative for cancers. The referenced material further states that the shrub known as **Palo Negro** does **not produce adverse effects or allergies**, and therefore may be consumed by any person seeking to treat any of the aforementioned diseases, especially patients with various types of cancer.

Another property discovered in this shrub is its ability to **enhance soil fertility** in the areas where it grows, possibly due to its contribution of organic matter. It is used in **dune stabilization**, to help conserve moisture, and undoubtedly due to its organic matter contribution to sandy soils.

CONCLUSION

By virtue of the accreditation request submitted by **Mr. ESTEBAN FERNÁNDEZ AROS**, of the company **AGRÍCOLA LOS ESTEROS LIMITADA, RUT: 76.396.801-4**, it is hereby certified that the plant known as **Palo Negro – Kurrü Mamüll** is indeed a **medicinal plant of traditional and ancestral Mapuche use**.

Temuco, August 2018

JUAN ÑANCULEF HUAQUINAO

Head (Acting) – Unit of Culture and Education

CONADI – National Directorate



CERTIFICADO

ACREDITASE QUE EL LAWEN PALO NEGRO - SÍ ES UNA PLANTA MEDICINAL DE USO TRADICIONAL MAPUCHE

La **Unidad de Cultura y Educación** de la Dirección Nacional de **CONADI** acredita que, el arbusto chileno denominado "ME LAWEN" o "**Palo negro**" o Kurrū Mamüll, es una planta medicinal, de uso tradicional y ancestral, milenario mapuche. Por lo mismo, es una planta muy significativa y protegida por el pueblo mapuche, por las cualidades curativas que posee y, entre los agentes mapuche que utilizan esta planta medicinal en la preparación de remedios curativos, están las Machi, lawentuchefe, entre otros.

Señalar que, desde el Programa Manejo y Protección del Patrimonio Cultural indígena, de la Unidad de Cultura y Educación de la Dirección Nacional CONADI, entre sus lineamientos se encuentra el fortalecimiento a la medicina tradicional ancestral de los pueblos indígenas, por la importancia que posee este saber cultural para el reconocimiento patrimonial de los pueblos originarios su conservación y uso.

ANTECEDENTES:

Consultada la Sra. MATILDE PAINEMIL, sabia mapuche y artesana del sector de NIAGARA comuna de Padre las Casas, por las propiedades que posee la planta denominada PALO NEGRO señala lo siguiente; *"Es un arbusto muy antiguo con mucho poder curativo, por eso hay que cuidar esa planta, esta planta crece en los humedales y donde llevo el sol, muy buscada por las machi y lawentuchefe"*.

JUAN ÑANCULEF HUIQUINAO, Historiador y Kimche mapuche, señala: El Palo Negro, también llamado "ME LAWEN" en mapuzugun, por su fuerte olor, es un arbusto ancestral medicinal muy protegido por los mapuches debido a su gran poder curativo, muy utilizado por los lawentuchefes para curar dolores estomacales; actualmente sus propiedades han sido investigadas científicamente por sus cualidades anticancerígenas.

Investigando en la Web se encontró el aporte que realiza a la medicina tradicional el Sr. ROLANDO CHATEAUNEUF (Economía, actualidad y Medicina tradicional) señala lo siguiente; *"se destaca en su promoción que la planta posee un poderoso anticancerígeno llamado leptocarpina, sustancia que actúa sobre las células enfermas, reconstituyéndolas a su forma normal. Su efecto sería similar al del germanio orgánico que contendrían las especies del género Aloe"*. www.rochade.cl/sobre-el-autor/



Otras investigaciones a este arbusto **Palo Negro** en relación a sus cualidades curativas que posee, pudiera ser muy bien recibido en casos de cáncer recién diagnosticado, se puede obtener la cura; en casos de cáncer avanzado, se puede mejorar la calidad de vida del paciente y se dan casos de cura total.

Este arbusto además de tratar el cáncer, sería efectiva para solucionar desarreglos menstruales, para tratar la diabetes, indigestión y gases, entre otros, preparada igualmente en infusión y tomada durante el día. Otra fuente de información señala que las hojas de este arbusto son estimulantes y carminativas, se usan en las dispepsias, también serviría para reducir el colesterol.

Es conveniente señalar además que se le recomienda usar para prevenir el cáncer. En este aspecto vuelve a ser parecido al efecto del aloe vera. Son especies preventivas y curativas de los cánceres. En el material revisado señala que el arbusto denominado **Palo Negro**, no generaría efectos adversos ni alergias, por lo cual puede ser consumida por cualquier persona que tenga el propósito de tratar alguna de las enfermedades nombradas, específicamente para los pacientes con diversos cánceres.

Otra cualidad descubierta por este gran arbusto está el proporcionar fertilidad al suelo donde se localice, posiblemente por su aporte en materia orgánica. Se le usa en la contención de dunas, para ayudar a la conservación de la humedad y seguramente por su aporte de materia orgánica al arenal.

CONCLUSIÓN:

En virtud de la solicitud de acreditación realizada por don: ESTEBAN FERNANDEZ AROS, de la Empresas AGRICOLA LOS ESTEROS LIMITADA, RUT; 76.396.801-4, **se Certifica, que efectivamente la planta denominada Palo Negro – Kurrü Mamüll, es una planta medicinal, de uso tradicional y ancestral, milenaria mapuche.**

Temuco, agosto de 2018.

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