Neyber S.A.S.
Natural & Responsible

It is found in different kinds of forests: temperate humid subtropical, tropical dry, humid subtropical lowland and very humid subtropical warm [1]. It is cultivated and grows freely in Putumayo, Tolima, Cundinamarca, Antioquia, the Amazon region, Guajira, Magdalena, Santa Marta and near the Chicamocha canyon.

Mobile: (+57) 313 294 5676
Phone: (+57) (1) 231 6074
e-mail: info@neyber.co,
comercial@neyber.co
Bogotá-Colombia

www.neyber.co

HISTORY OF LIPPIA ALBA in Colombia

The Lippia alba from the family Verbenaceae is a very aromatic sub-shrub, it is widely distributed and grows spontaneously in Central and South America. It is characterized by changes in chemical composition depending on the stage of development of the plant, the part used for the extraction, the geographical location, the physicochemical characteristics of the soil and the climate (humidity, oxygen concentration and light intensity) where the plant develops , among others. This variability in the chemical composition of L. alba is reflected in several studies on this species cultivated in different regions of the world.

In Colombia the Lippia alba is known as “Pronto Alivio” (quick relief) and is widely used among the communities in infusions or teas such as antispasmodic, disinfectant, antibacterial, antifungal and antioxidant; its similar antioxidant power was shown in vitro to be higher than vitamin E or BHA [2]. Regarding its odor, it has a penetrating, intense and fresh smell of lemon, mint and it is used as flavoring and odorant in different foods and cosmetics.

ECOLOGY

This species grows in preferably sandy clay soils with high humidity and high drainage capacity as it does not bear puddles. The adequate temperature ranges from 15-25°C to 32 °C, with high light intensity and in areas with annual rainfall between 700 and 1,500 mm.

The plant is characterized by its intense and penetrating odor and contains from 0.1 to 1.2% of vol. The chemical composition of the essential oil of Lippia alba depends significantly on the geographical origin of the plant, the conditions of its cultivation, the age and the part of the plant used for the extraction, and some geobotanical factors. The highest content of essential oil is obtained by harvesting it in full bloom.

There is a Lippia alba of a new chemotype containing carvone (40-57%) as a major component in oils obtained by hydrodistillation. In the Lippia alba, oxygenated monoterpenes predominate, such as citral.

ESSENTIAL OIL LIPPIA ALBA NEYBER

Concentration 0,05 % - 0,1%

INCI NAME: Lippia Alba Leaf/Stem Oil.

ACTIVES/MARKERS	MAIN CLAIMS	STUDY		SAFETY
		EFFICACY	RESULTS	
Gas cromatography of main components (Geranial 22,4%; Neral 18,3%, Geraniol 14,0%; Trans-B-cariophyillene 12,2%; Cariophyllene oxide 6,7%; Nerol 3,3%)	**ANTIOXIDANT ANTIMICROBIAL**	**Antioxidant** Essential oil and extract showed higher antioxidant (anti-free radicals) between 74% and 84% higher than vitamin E and BHT. [2] [3]	The oil presented antibacterial activity, generally being higher on gram-positive germs, with values of the inhibitory minimal concentrations between 0, 3 and 0, 63 mg/L. With the aid of capillary gas chromatography, mass spectrometry, and infrared spectroscopy, the volatile components of Lippia alba (Mill.) N.E. Br. essential oil, were studied, achieving the identification of 43 compounds, 20 of them reported for the first time. The antibacterial activity of the essential oil on a bacteria integrated by 9 bacterial species, was evaluated by determining the inhibitory minimal concentrations, and with the use of the method of double dilution series in a liquid medium [3].	**Mammalian cell toxicity: LC50** System: Vero cells (g/mL) — LC_{50}: 48.27 — CI: 39.75-56.78 System: Artemia franciscana (g/mL) — LC_{50}: 15.85 — CI: 17.17 - 4.63 The final result of the test indicates that the product is to be classified as 'harmless' [3].

Reference:

[1] *Porto Verdecia M, Ceballos VR, Ganzó DN, Arévalo MJ, Cáceres A (2000). Agrotecnología para el cultivo de salvia sija o pronto alivio. En: Martínez J V, Bernal H Y, Cáceres A. Fundamentos de Agrotecnología de Cultivo de Plantas Medicinales Iberoamericanas. Ed. Convenio Andrés Bello (CAB) y Programa Iberoamericano de Ciencia y Tecnología para el Desarrollo (CyTED). 2000. Bogotá, D.C, Colombia. 493 pp.*

[2] *Linde, G. A., et al. "Chemotypes, extraction, chemical composition and use of Lippia alba essential oil." Revista Brasileira de Plantas Medicinais 18.1 (2016): 191-200.*

[3] *Orozco M. Comparative study of antioxidant activity (antiradical) of essential oils and extracts of Lippia alba and Lippia origanoides a gel deodorant. (2011) Chemistry School. Universidad Industrial de Santander, Colombia.*

Mobile: (+57) 313 294 5676
Phone: (+57) (1) 231 6074
e-mail: info@neyber.co,
comercial@neyber.co
Bogotá-Colombia

www.neyber.co