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Boldo peumus boldus pdf

Boldo *peumus boldus*. Boldo plante. Boldo folium. Boldo properties

Species of plant For other uses, see Boldo (disambiguation). Boldo Scientific classification Kingdom: Plantae Clade: Tracheophytes Clade: Angiosperms Order: Laurales Family: Monimiaceae Genus: *Peumus* Binomial name *Peumus boldus* Molina Synonyms *Ruizia fragrans* Ruiz & Pav. *Peumus fragrans* (Ruiz & Pav.) Pers. *Boldus chilense* Poepp. ex Meisn. *Boldu chilanum* Nees *Boldu boldus* (Molina) Lyons *Boldea fragrans* (Pers.) Endl. *Boldea fragrans* (Ruiz & Pav.) Gay *Boldea boldus* (Molina) Looser Peumus boldus, commonly known as boldo (from the Mapuche name *folo*), is a species of tree in the family Monimiaceae and the only species in the genus *Peumus*. It is endemic[1][verification needed] to the central region of Chile, between 33° and 40° southern latitude. Boldo has also been introduced to Europe and North Africa, though it is not often seen outside botanical gardens. Due to its common name, it is often confused with the species *Plectranthus ornatus*, known as falso boldo ("fake boldo"), boldo paraguayo or boldo rastrero, which has led to confusion about the uses, properties and toxicity of both species. Description Boldo, together with litre, quillay, peumo, bollén and other indigenous plants, is a characteristic component of the sclerophyllous forests endemic to central Chile. Its leaves, which have a strong, woody and slightly bitter flavor and camphor-like aroma, are used for culinary purposes, primarily in Latin America. The leaves are used in a similar manner to bay leaves and are also prepared as an herbal tea, primarily in Chile and Argentina. The edible fruits are small drupes about 2 centimeters in diameter, green in color and having a pleasant flavor. Though not well known outside their native range, boldo fruits, which appear between December and February, are very tasty, nutritious, small, green, edible spheres. Boldo's assertive flavor comes primarily from the presence of the chemical ascaridole, which is also present in the epazote plant. Uses In Brazil, Argentina, Chile, Uruguay, and Paraguay, boldo is mixed with yerba mate or other teas to moderate its flavor. Some families keep a boldo plant at home for this purpose, although boldo teabags are readily available in nearly all supermarkets. Boldo and plants with similar properties are widely used as mild folk medicine in various South American countries in both urban and rural areas, even among people who do not usually drink herbal teas other than mate beverage. In Brazilian pharmacopoeia, boldo is an officially listed phytotherapeutic plant, as a cholagogue and choleric used for treatment of mild dyspepsia.[2] Boldo is in the family Monimiaceae, which is closely related to the family Lauraceae (which includes many other plants used for their aromatic leaves, such as cinnamon, cassia, bay leaf, and camphor laurel.) Boldo leaves have a slightly bitter, soft flavor and a bit of a rough, coniferous taste when brewed in tea.



They are used as a culinary herb to spice many savory dishes including fish, mushrooms, and vegetables and as a component in sauces. In some local South American kitchens boldo leaves are also popular for wrapping frying fish and meat. Boldo fruits, when dried, are used to make spicy condiments.^[3] Toxicity Boldine In 2009, the European Medicines Agency assessed boldo as follows: Boldo leaf contains the alkaloid boldine. Boldo leaf also contains 2-4% of volatile oil. Major constituents reported as: ascaridole (16-38%), 1,8-cineole (11-39%) and p-Cymene (9-29%).^[4] Mariano, Xavier Maia; Souza, Wanderson Fernando Mello de (2019). "Bioactive volatile fraction of Chilean boldo (*Peumus boldus* Molina) – an overview". Journal of Essential Oil Research. 31 (6): 474–486. doi:10.1080/10412905.2019.1617797. S2CID 198351342. Retrieved 2021-08-19. Ascaridole is highly toxic, and this raises concerns about the suitability of boldo leaf in traditional herbal medicinal products. Abortifacient and teratogenic effects in rats were observed with very high doses (800 mg/kg) of a dry ethanolic extract of boldine in the first days of pregnancy, not present at lower doses.^[5] Most investigations have been carried out using boldine.^[citation needed] Limited information is available on herbal preparations of boldo leaf and where studies have been reported, details of the preparations are usually lacking. There are no reported genotoxicity or carcinogenicity studies with herbal preparations of boldo leaf. Boldo oil should not be used internally or externally. Where boldo leaf is used, the total exposure to ascaridole should be considered from a safety standpoint. The levels of ascaridole in herbal medicinal products should be quantified. In view of the low solubility of ascaridole in water, the use of aqueous extracts including herbal teas could be accepted.^[medical citation needed] The use of ethanolic extracts of boldo leaf is not considered acceptable for traditional herbal medicinal products, in view of the potentially higher levels of the toxic ascaridole constituent.^[5]

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External links "Boldo leaves (*Peumus boldus* Molina)". Gernot Katzer's Spice Pages.
"Pictures and information of Boldo tree, leaves and flowers". "Plantas de la flora de Chile cultivadas en España" [Chilean plants cultivated in Spain] (PDF) (in Spanish). Archived from the original (PDF) on 2009-03-20. Retrieved 2009-06-27. Retrieved from " 2 Eucalyptol Names IUPAC name 1,3,3-Trimethyl-2-oxabicyclo[2.2.2]octane Other names 1,8-Cineole1,8-Epoxy-p-menthanecajeputol1,8-epoxy-p-menthane, 1,8-oxido-p-menthane eucalyptole1,3,3-trimethyl-2-oxabicyclo[2.2.2]octanecineolcineole. Identifiers CAS Number 470-82-6 Y 3D model (JSmol) Interactive image Beilstein Reference 105109 5239941 ChEBI CHEBI:27961 ChEMBL ChEMBL485259 Y ChemSpider 2656 Y DrugBank DB03852 Y ECHA InfoCard 100.006.757 EC Number 207-431-5 Gmelin Reference 131076 IUPHAR/BPS 2464 KEGG D04115 Y PubChem CID 2758 UNII RV6J6604TK Y CompTox Dashboard (EPA) DTXSID4020616 InChI InChI=1S/C10H18O/c1-9(2)8-4-6-10(3,11-9)7-5-8/h8H,4-7H2,1-3H3 YKey: WEEGYLXZBRQIMU-UHFFFAOYSA-N YInChI=1/C10H18O/c1-9(2)8-4-6-10(3,11-9)7-5-8/h8H,4-7H2,1-3H3Key: WEEGYLXZBRQIMU-UHFFFAOYAY SMILES O2C1(CCC(CC1)C2(C)C)C Properties Chemical formula C10H18O Molar mass 154.249 g/mol Density 0.9225 g/cm³ Melting point 2.9 °C (37.2 °F; 276.0 K) Boiling point 176–177 °C (349–351 °F; 449–450 K) Magnetic susceptibility (χ) –116.3×10⁻⁶ cm³/mol Pharmacology ATC code R05CA13 (WHO) Hazards GHS labelling: Pictograms Signal word Danger Hazard statements H226, H304, H315, H317, H319, H411 Precautionary statements P210, P233, P240, P241, P242, P243, P261, P272, P273, P280, P301+P310, P302+P352, P303+P361+P353, P305+P351+P338, P321, P331, P332+P313, P333+P313, P337+P313, P362, P363, P370+P378, P391, P403+P235, P405, P501 Except where otherwise noted, data are given for materials in their standard state (at 25 °C [77 °F], 100 kPa). Y verify (what is YN ?) Infobox references Chemical compound Eucalyptol (also called cineole) is a monoterpenoid colorless liquid, and a bicyclic ether.[1] It has a fresh camphor-like odor and a spicy, cooling taste.[1] It is insoluble in water, but miscible with organic solvents. Eucalyptol makes up about 70–90% of eucalyptus oil.[2][3] Eucalyptol forms crystalline adducts with hydrohalic acids, o-cresol, resorcinol, and phosphoric acid. Formation of these adducts is useful for purification. [4] In 1870, F. S. Cloez identified and ascribed the name "eucalyptol" to the dominant portion of *Eucalyptus globulus* oil.[2] Uses Because of its pleasant, spicy aroma and taste, eucalyptol is used as a flavoring at low levels (0.002%) in various products, including baked goods, confectionery, meat products, and beverages.[1][5] In a 1994 report released by five top cigarette companies, eucalyptol was listed as one of the 599 additives to cigarettes.[6] It is claimed to be added to improve the flavor.[1] Eucalyptol is an ingredient in commercial mouthwashes,[1] and has been used in traditional medicine as a cough suppressant.[7] Other Eucalyptol exhibits insecticidal and insect repellent properties.[8][9] In contrast, eucalyptol is one of many compounds that are attractive to males of various species of orchid bees, which gather the chemical to synthesize pheromones; it is commonly used as bait to attract and collect these bees for study.[10] One such study with *Euglossa imperialis*, a nonsocial orchid bee species, has shown that the presence of cineole (also eucalyptol) elevates territorial behavior and specifically attracts the male bees. It was even observed that these males would periodically leave their territories to forage for chemicals such as cineole, thought to be important for attracting and mating with females, to synthesize pheromones.[11] Toxicology Eucalyptol has a toxicity (LD₅₀) of 2.48 grams per kg (rat).[1] Ingestion in significant quantities is likely to cause headache and gastric distress, such as nausea and vomiting.[1] Because of its low viscosity, it may directly enter the lungs if swallowed, or if subsequently vomited. Once in the lungs, it is difficult to remove and can cause delirium, convulsions, severe injury or death.[1] Biosynthesis Eucalyptol is generated from geranyl pyrophosphate (GPP) which isomerizes to (S)-linalyl diphosphate (LPP). Ionization of the pyrophosphate, catalyzed by cineole synthase, produces eucalyptol. The process involves the intermediacy of alpha-terpinyl cation.[12][13][14] Plants containing eucalyptol *Aframomum corrorima*[15] *Artemisia tridentata*[16] *Cannabis*[17] *Cinnamomum camphora*, camphor laurel (50%)[18] *Eucalyptus globulus*[19] *Eucalyptus largiflorens*[20] *Eucalyptus salmonophloia*[21] *Eucalyptus staigeriana*[22] *Eucalyptus wandoo*[23] *Hedychium coronarium*, butterfly lily[24] [25] *Helichrysum gymnocephalum*[26] *Kaempferia galanga*, galangal, (5.7%)[27] *Salvia lavandulifolia*, Spanish sage (13%)[28] *Turnera diffusa*, damiana[29] *Umbellaria californica*, pepperwood (22.0%)[30] *Zingiber officinale*, ginger[31] See also Camphor Citral Eucalyptus oil Lavandula Menthol Mouthwash References ^ a b c d e f g h i "Eucalyptol". PubChem, US National Library of Medicine. 22 April 2023. Retrieved 28 April 2023.
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