

Wormseed



Teloxys ambrosioides (L). Weber
(Syn. *Chenopodium ambrosioides* L)

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Common names in Spanish: Epazote, Pazote, Paico, Te de México.

Medicinal parts: The whole plant, especially the leaves and seeds.

History

The plant is a strongly aromatic annual or perennial (many varieties exist), native to the American continent that is found in many states in central and southern Mexico, as well as in the Southwestern United States. (Foster and Hobbs, 2002; Adame and Adame 2000; Aguilar 1999).

Wormseed has been used to condiment food in Mexico since pre-Columbian times (Aguilar 1999; Argueta 1994). It has also been employed by empirical herbalists and healers against intestinal parasites (especially small tapeworms and round worms) throughout Latin America (Gadano et al., 2002; Béjar et al., 2000; Garcia et al., 1997; Schultes and Raffauf, 1990; Martinez, 1989; Morton, 1981), as well as in the West Indies (Quinlan et al., 2002). Wormseed is also employed against stomach ailments by some Hispanics in the United States.

Active principles


- Essential oil containing ascaridol, alpha terpenes, limonene, alpha pinenes) (Bruneton, 1999; Kliks, 1985; Johnson and Croteau 1984).

Applications in herbal therapy

- This herb contains compounds that paralyze intestinal worms and aid in their elimination from the digestive tract (Quinlan et al., 2002; Berdoncés 1998; Okuyama et al., 1993; Del Rayo et al., 1991; Schultes and Raffauf, 1990; Kliks 1985).
- Although concentrated infusions made from the leaves may be effective against intestinal worms (López et al., 2001; Giove 1996; Linares et al., 1994), the seed oil containing ascaridol, which is definitely more toxic, has been used primarily employed against these parasites.
- The difference between the toxic and therapeutic dose is very small, which is why the oil should never be employed as an anthelmintic (Yarnell et al., 2003; Brinker 2000; Bruneton 1999; Kliks 1985).
- As an emmenagogue, to promote menstruation (Schultes and Raffauf, 1990; Conway and Slocum, 1979).
- Against Parkinson's disease.
- As an appetite enhancer and digestive tonic (Foster and Hobbs, 2002; Martinez, 1989; Cabrera, 1988).
- Wormseed extracts have shown antifungal activity (Ahmed, 2000).
- Experimentally, ascaridol, wormseed's main neurotoxic constituent, has been employed *in vitro* against tumor cells (Efferth et al., 2002; Ruffa et al., 2002).
- The active constituents in wormseed may be beneficial in a variety of activities, such as treating candidiasis (Rojas et al., 1991), controlling the growth of aflatoxin-producing molds in maize (Montes-Belmont and Carvajal, 1998), as well as against certain insects (Morsy et al., 1998; Del Rayo et al., 1991) and pathogenic protozoa (Kiuchi et al., 2002; Pollack et al., 1990).
- It is important to note that the therapeutic and culinary dosages and applications are distinct. The leaves are added in moderation as a condiment (flavoring) to various dishes (especially beans), in order to reduce flatulence. This custom apparently has no ill effects upon the consumers (Duke et al., 2002).



Safety/Precautions

- The leaves can be used in small amounts as a food flavoring only (Duke et al., 2002).
- Fatalities in people, especially children, treated with wormseed oil have been reported (Foster and Hobbs, 2002; Montoya et al., 1996).
-  **The seed oil (or the roots) should never be used (internally or externally), even in small amounts, for any ailment, due to potential toxicity. Its use for any therapeutic purpose is now considered obsolete in modern medical practice.**
- Do not employ tea in pregnancy, lactation or in small children (Brinker, 2001, 2000; Montoya-Cabrera et al., 1996).
- Do not employ in patients with ulcers, intestinal disease, heart disease, liver complaints or in persons with impaired kidney function, as the possibility of intoxication is augmented (Brinker, 2000).
- Certain active compounds in the plant may be genotoxic (Gadano et al., 2002).

Herb/Drug interactions

- Do not combine seed oil or infusions (teas) made from the plant with any drug with anthelmintic action, such as albendazole, phenotiazine or ivermectine, for example.

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