Uses of Pistacia lentiscus in the Mediterranean region

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INRGREF
The used parts of mastic tree

- Seeds
- Twigs
- Roots
- Mastic
Twigs

Essential oil: used as a decongestant of the venous and lymphatic systems, it treats varicose veins and venous stasis, phlebitis and haemorrhoids.
Twigs

Decoration

Christmas wreath

Bouquet of flowers
Twigs

Leaves extract: is used in pottery for decoration
Mastic

Mastic: Mastic is used for stomach and intestinal ulcers, breathing problems, muscle aches, and bacterial and fungal infections. It is also used to improve blood circulation.
Mastic gum: chewing mastic gum may help prevent cavities and reduce the levels of certain bacteria in the mouth. These bacteria can lead to plaque and gum disease.
Mastic

Mastic oil: traditionally used as food additive and flavoring agent and used in folk medicine for the treatment of gastrointestinal disorders.
Roots

Root decoction: respiratory problems
Seeds

Preparation of traditional meals
Seeds

Fixed oil: used in traditional medicine for wound healing, ulcer and asthma treatment.
Seed oil: biological properties

Important wound healing effect on burns\textsuperscript{1} and Full-thickness excision wounds\textsuperscript{2}

Anti-proliferative effects against cancer cells\textsuperscript{3} (more than 50\% of cells in 24h)

Antibacterial and antifungal activities\textsuperscript{4} (\textit{E. coli}, \textit{Clostridium perfringens} and \textit{Aspergillus niger})
Seed oil: biological properties

Protective effect against induced hepatic dysfunction and oxidative stress\(^5\)

Significant prophylactic and therapeutic effects against gastric ulcers\(^6\)

Significant anti-glycogenesis activity\(^7\)
Seed oil: Biochemical properties

- Fatty acids composition:
  Insaturated fatty acids (≥ 70%)
  oleic acid (50%), Linoleic acid (20%), palmitic acid (20%)

- Sterols:
  The main sterols were β-sitosterol (54%), cycloartenol (11%) and 24-methylene-cycloartenol (5%).
Seed oil: Biochemical properties

- Tocopherols\textsuperscript{10}:

  The total tocopherol content reached 118.16 mg/kg oil

  \textit{\textbf{\textcolor{red}{\alpha}}-tocopherol} and \textit{\textbf{\textcolor{red}{\gamma}}}-tocopherol

  \textit{\textbf{\alpha}}-tocopherol content reached 96.77 mg/kg oil

  \textit{\textbf{\gamma}} -Tocopherol amount reached 22.12 mg/kg oil
Seed oil: Biochemical properties

- Carotenoids\(^{10}\):
  
The total carotenoid content reached 10.57 mg/kg oil of lutein, zeaxanthin and \(\beta\)-carotene

- Phenols\(^{11}\):
  
The total phenols amount reached 4260.57 mg/kg oil of Phenolic profile of this oil showed that it is mainly composed of phenolic acids and flavones
References


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References


10 F. Mezni, M.L. Khouja, S. Gregoire, L. Martine, A. Khaledi, O. Berdeaux. 2014. Effect of growing area on tocopherols, carotenoids and fatty acid composition of *Pistacia lentiscus* edible oil, Natural Product Research, 28 (16) 1225-1230.

Thank you