

Drug Status Report

Drug: Damiana

Drug Name Status: Damiana is the common name

Other Names: *Turnera diffusa* Willd. Ex J. A. Schultes; *Turnera diffusa*; Black Mamba

International status:

US: The substance is not currently listed on the US Controlled Substances Act and is not mentioned on the DEA website.

United Nations: The substance is not listed on the Yellow List - List of Narcotic Drugs under International Control nor the Green List - List of Psychotropic Substances under International Control.

Canadian Status: *Turnera diffusa* is native to the tropical and subtropical parts of America. The plant has historical use as a herbal aphrodisiac¹ and is also found in herbal supplements marketed for weight loss². There have been reports of the recreational use of damiana^{3,4} but there is presently no report in the scientific literature of any psychoactive substances in *T. diffusa*. Recent studies have shown *T. diffusa* to contain a variety of flavanoids, some of which demonstrate aromatase inhibitory activity, flavones, terpenoids, phenolic glycosides and cyanogenic glycosides¹, as well as ellagic acid⁵ which is antioxidant found in many fruit and vegetables. None of the compounds identified in *T. diffusa* are similar to the substances listed in the Schedules to the CDSA.

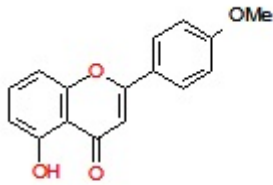
¹Zhao, J. *et al.* (2008) Anti-aromatase activity of the constituents of damiana (*Turnera diffusa*), J. Ethnopharmacol. **120**:387-393.

²Ruxton, CHS. *et al.* (2007) Effectiveness of a herbal supplement (Zotrim™) for weight management, British Food J. **109**:416-428.

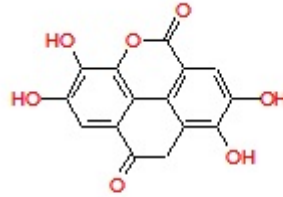
³Lowry, TP. (1984) Damiana. J. Psychoactive Drugs **16**:167-268.

⁴Dennehy, CE. *et al.* (2005) Evaluation of herbal dietary supplements marketed on the internet for recreational use, Annals of Pharmacother. **39**:1634-1639.

⁵Aguilera-Carbo, AF. *et al.* (2008) Extraction and analysis of ellagic acid from novel complex sources, Chemical Papers **62**:440-444.



acacetin
5,7-dihydroxy-4-methoxyflavone



ellagic acid
2,3,7,8-tetrahydroxy(1)benzopyrano(5,4,3-cde)-(1)benzopyran-5,1-dione

Recommendation: *T. diffusa* (Damiana) is included not included in any of the Schedules to the CDSA and is not considered a controlled substance.

January 15th, 2009.