



COMMITTEE FOR VETERINARY MEDICINAL PRODUCTS

ARTEMISIA ABROTANUM

SUMMARY REPORT

1. *Artemisia abrotanum* L. (synonym: ladies love, oldman wormwood, southernwood, European sage) is a plant of the family *Asteraceae*. The homeopathic mother tincture is prepared by ethanolic extraction of fresh young flowering leaves and twigs of the shrub *Artemisia abrotanum* according to homeopathic pharmacopoeias.

Significant constituents of *Artemisia abrotanum* are the essential oils (6 to 9 ml/kg dry matter), predominantly 1,8-cineole (eucalyptol) but also camphor, thujone and furthermore volatile mono- and sesquiterpenes like fenchene, sabinene, caryophyllene, humulene. Additional constituents are coumarins (isofraxidin, scopoletin), phenolic acid compounds mainly caffeic acid, chlorogenic acid and further ferulic acid, sinapic acid, p-hydroxyphenylacetic acid, vanillic acid, salicylic acid, p-coumaric acid and flavonol glycosides like rutin.

2. In veterinary homeopathy the mother tincture of *Artemisia abrotanum* and dilutions thereof are intended for parenteral use in all food-producing animals. The use follows the principles of homeopathic therapy where animals are diagnosed on basis of the individual pattern of clinical signs. The recommended maximum parenteral dose for large animals is 10 ml/animal. Treatment may be repeated but a fixed dose schedule is not common in homeopathy.

The leaves of *Artemisia abrotanum* are used in traditional human medicine as a peptic and appetising agent, similar to wormwood (extract of the closely related subgenus *Artemisia absinthium* L.). The oral dose of a fluid extract of *Artemisia abrotanum* (1:1 in 25% aqueous ethanol) was reported with 2 to 4 ml, 3 times a day.

3. The extract of the chemotaxonomically related subgenus *Artemisia absinthium*, absinthium extract, has previously been considered by the Committee for Veterinary Medicinal Products and is included in Annex II of Council Regulation (EEC) No 2377/90 for use in all food producing species. Eucalyptol (1,8-cineole), the predominant constituent of the essential oil of *Artemisia abrotanum*, is also included in Annex II of Council Regulation (EEC) No 2377/90 for all food producing species.
4. In a preliminary risk evaluation procedure by the Committee for Veterinary Medicinal Products, considering all defended old substances used in veterinary homeopathy in concentrations greater than 1:10 000, the use of *Artemisia abrotanum* and its individual constituents was considered as not giving rise to specific health concerns. Further information made available and systematic search of published literature did not provide any further evidence for pharmacological or toxicological properties of *Artemisia abrotanum* and its constituents alerting to specific health risks which may result from residues in food producing animals following the intended uses. Special emphasis was put on identification of suspicion pointing to genotoxicity or other potential of serious health effects of plant constituents.

Conclusions and recommendation

Having considered the criteria laid down by the Committee for Veterinary Medicinal Products for the inclusion of substances in Annex II of Council Regulation (EEC) No 2377/90 and in particular that:

- *Artemisia abrotanum* is used only in a small number of individual animals for non-regular treatments,
- animals are unlikely to be sent for slaughter during or immediately after treatment,
- *Artemisia abrotanum* and individual constituents thereof did not give rise to specific consumer health concern which may result from veterinary homeopathic uses,
- the extract of the closely related plant *Artemisia absinthium*, absinthium extract, is already included in Annex II of Council Regulation (EEC) No 2377/90,
- eucalyptol which is the predominant component of the essential oil of *Artemisia abrotanum* is also already included in Annex II of Council Regulation (EEC) No 2377/90;

the Committee for Veterinary Medicinal Products concludes that there is no need to establish an MRL for *Artemisia abrotanum* and recommends its inclusion in Annex II of Council Regulation (EEC) No 2377/90 as follows:

Pharmacologically active substance(s)	Animal species	Other provisions
<i>Artemisia abrotanum</i>	All food producing species	For use in homeopathic veterinary medicinal products prepared according to homeopathic pharmacopoeias at concentrations corresponding to the mother tincture and dilutions thereof only