

A Multi-Criteria Framework for Prioritizing Medicinal Plants for Herbal Veterinary Medicinal Product Development in the European Union

Introduction

The imperative to reduce antimicrobial and antiparasitic use in livestock has intensified interest in plant-based interventions as sustainable tools in veterinary medicine. Despite their long-standing use, the broader implementation of herbal veterinary medicinal products (HVMPs) in the European Union remains constrained by the absence of a dedicated, harmonized regulatory framework.

This study aimed to develop and validate a transparent, science-driven framework for the systematic prioritization of medicinal plant species with high potential for future inclusion in an EU regulatory pathway for HVMPs.

Methodology

The initial identification of plant species was conducted by experts within project CA22109 (as of September 2024). All plant species included in the evaluation were selected based on documented traditional use, as evidenced by ethnoveterinary studies, historical textbooks, or their inclusion in recently or previously marketed HVMPs.

The evaluation (scoring system), grounded in relevant European and national legislative frameworks and scientific guidelines, resulted in the categorization of the plant species into two lists: (A) a list of the most promising candidates for simplified registration as HVMP, and (B) a list of less promising candidates, based on current regulatory, scientific, and technical considerations.

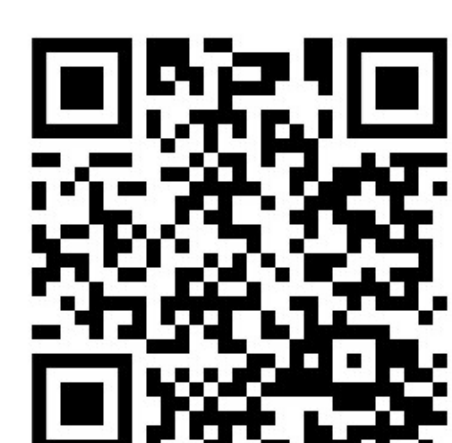
Results

Plant list A compiles 83 plant species that are sources of herbal substances/herbal preparations considered as the priority for a simplified registration procedure as HVMP in Europe, and which, overall, were scored positively (final score of more than 0). **Plant list B** compiles plant species whose simplified registration is currently not considered as a priority or not advisable based on the available data; these plants are suggested to remain subjects of the currently existing registration procedures.

The highest-scoring plant species (≥ 14 points), including *Gentiana lutea*, *Salvia rosmarinus* (*Rosmarinus officinalis*), *Melissa officinalis* (16 points each), *Eucalyptus globulus*, *Hypericum perforatum*, *Juniperus communis*, *Matricaria chamomilla*, *Mentha × piperita*, *Pimpinella anisum*, and *Thymus vulgaris* (15 points each), *Althaea officinalis*, *Carum carvi*, *Echinacea purpurea*, *Foeniculum vulgare*, and *Urtica dioica* (14 points each), can be regarded as priority candidates for assessment for simplified registration of (HVMPs).

Conclusions: The proposed evaluation framework represents a structured, science-driven instrument designed to inform and optimize the selection of botanical candidates for assessing simplified HVMP registration. It is designed to serve as a quick, pragmatic screening process for medicinal plants as sources of herbal active ingredients.

Data type	Legal framework/database
Veterinary data	Commission Regulation (EU) No 37/2010 of 22 December 2009 on pharmacologically active substances and their classification regarding maximum residue limits in foodstuffs of animal origin
	European Pharmacopoeia
Pharmaceutical data	EMA herbal monographs / Committee on Herbal Medicinal Products (HMPC)
	WHO monographs
	European Scientific Cooperative on Phytotherapy (ESCOP) Monographs
	List of traditionally used medicinal plants according to the French National Agency for Medicines and Health Products Safety (Agence Nationale de Sécurité du Médicament et des Produits de Santé)
	Commission Regulation (EU) 2017/1017 of 15 June 2017 amending Regulation (EU) No 68/2013 on the Catalogue of feed materials
Food and feed data	Codex alimentarius
	Food and Feed Information Portal Database
	EFSA Compendium of Botanicals - Botanical Summary Report
	BelFrlt List of plants allowed in food supplements
	Compl'Alim: French Food Supplements Database
	Appendix List 1 of Belgian Royal Decree of 31 August 2021, i.e. list of plants not allowed for use in foodstuffs
Conservation status	Annex I of Regulation (EC) No. 396/2005 on products of plant (or animal) origin included in the regular human diet
	UICN Red List



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