



INFUSÕES[®]
COM HISTÓRIA

ROMANESQUE BLENDS: Romanesque Blends

Blend 1: Scrubland Blend

Composition suggested:

Common self-heal leaves (*Prunella vulgaris* L.)
Carqueja flowers (*Genista tridentata* L.)
Spearmint leaves and inflorescences (*Mentha spicata* L.)

Three plants of different habitats and characteristics provide an interesting herbal tea, with particular scent and well-balanced flavour: slightly earthy and floral, delicate and sweet, fresh and minty. Herbal infusion to drink as hot as possible, promoting the memories of the countryside.

Plants have natural phytochemicals which may cause some side effects, depending on consumers' age and condition.

Basic recommendations for herbal tea:

Water temperature: about 90 °C
Amount of mixed herbs: about 10g/L
Suggested time: infuse in hot water for 6 to 9 minutes, and then filter the herbs with a tea strainer.
To obtain a slightly different profile, in color and taste, steep for less time or reduce the amount of the mix.

Rationale:

The aim of blending is to create a well-balanced flavor using different origins and characters. The three species selected have interesting chemical and biochemical features and antioxidant activity. Based on several research studies, the blend anticipates the advantages of interesting sugars, organic acids, phenolic and volatile compounds, and essential oils that are present in such species.

The infusion of *carqueja* flowers is robust and full-body, having strong, bitter and earthy flavor and scent. Moreover, it has also something floral, some notes suggesting honey. After a few hours of preparation a fermented taste may be detected as well as some oxidation. Experimental studies found that blending *carqueja* flowers with other herbs increased the medicinal potential (e.g. antioxidant activity and other bioactivities) of the individual herbs. The herbal tea of self-heal leaves is smoother and tastes sweet, with very own aromatic notes. Spearmint infusion has also unique taste and powerfully pleasant aroma. Its sensorial profile is described as smooth, sweet, mentholated and refreshing, with a vibrant fragrance.

Some consumers find the taste of *carqueja* beverages too much dominant and pungent. Blending of different herbs together might create a final product generally lighter, taking advantage of synergistic effects as well. Therefore, the combination of *carqueja*, common self-heal and spearmint is suggested to moderate the strong and earthy taste and to make an herbal tea much more aromatic, providing a fusion of flavors and aromas that stimulate the senses and the memories of the countryside.

Carqueja water extracts such as infusions and decoctions have a long history of traditional uses in Portugal. It is frequently associated with wildlife and the rural lifestyles. This species is not easy to grow because it produces few seeds and vegetative propagation is not easy either. In general, the raw material of *carqueja* is wild gathered in the mountainous regions by local people, using sustainable approaches. Young flowers and young shoots are dried in the shade, stored in bags and preserved and consumed throughout the year.

The species distribution along the Portuguese territory, the technique of collecting and processing plant materials, as well as its consumption in infusions sweetened with honey and flavored with a slice of lemon recall another interesting Fabaceae: *Aspalathus linearis* (Burm.f.) R.Dahlgren., which common name is rooibos or bush tea. The species is usually grown in a small mountainous area in the region of the Western Cape, province of South Africa. Traditionally, local people climb the mountains to cut the needle-like leaves from wild rooibos plants. These procedures are remarkably similar to the Portuguese ones.



References:

1. Aguiar, C. (2018). Manual de Botânica: estrutura e reprodução, volume I. Bragança: Instituto Politécnico.
2. Carvalho, A. M. & Ramos, M. T. (2012). Etnoflora da Terra de Miranda. Bragança, Portugal: Instituto Politécnico e Bragança.
3. Carvalho, A. M. (2010). Plantas y sabiduría popular del Parque Natural de Montesinho. Un estudio etnobotánico en Portugal. Biblioteca de Ciencias nº 35. Madrid, Portugal: Consejo Superior de Investigaciones Científicas.
4. Ferreira, F., Dinis, L., Azedo, P., Galhano, C., Simões, A., Cardoso, S., Rosário, M., Domingues, M., Pereira, O., Palmeira, C., Peixoto, F. (2012). Antioxidant capacity and toxicological evaluation of *Pterospartum tridentatum* flower extracts. *CyTA Journal of Food*, 10:2, 92-102.
5. Flora-On: Flora de Portugal Interactiva (2014). Sociedade Portuguesa de Botânica, www.flora-on.pt.
6. Font Quer, Pio (1999). *Plantas Medicinales, El Dioscorides Renovado*. Barcelona: Ediciones Peninsula.
7. Karam, T., Dalposso, L., Casa, D., De Freitas, G. (2013). Carqueja (*Baccharis trimera*): utilização terapêutica e biossíntese. *Revista Brasileira de Plantas Mediciniais*, 15 (2), 280-286.
8. Neves J.M., Matosa, C., Moutinho, C., Queiroz, G., Gomes, L.R. (2009). Ethnopharmacological notes about ancient uses of medicinal plants in Trás-os-Montes (northern of Portugal). *Journal of Ethnopharmacology*, 124, 270–283.
9. Novais, M. H., Santos, I. Mendes, S. & Pinto-Gomes, C. (2004). Studies on pharmaceutical ethnobotany in Arrábida Natural Park (Portugal). *Journal of Ethnopharmacology*, 93, 183-195.
10. Pinela, J., Barros, L., Carvalho, A.M., Ferreira, Isabel C.F.R. (2011). Influence of the drying method in the antioxidant potential and chemical composition of four shrubby flowering plants from the tribe Genisteae (Fabaceae). *Food and Chemical Toxicology*, 49:11, 2983-2989.
11. Roriz, C., Barros, L., Carvalho, A. M., Ferreira, Isabel C.F.R. (2014a). HPLC-profiles of tocopherols, sugars and organic acids in three medicinal plants consumed as infusions. *International Journal of Food Science*. <http://dx.doi.org/10.1155/2014/241481>.
12. Roriz, C., Barros, L., Carvalho, A. M., Santos-Buelga, C., Ferreira, Isabel C.F.R. (2014b). *Pterospartum tridentatum*, *Gomphrena globosa* and *Cymbopogon citratus*: a phytochemical study focused on antioxidant compounds. *Food Research International*, 62, 684–693.
13. Roriz, C., Barros, L., Carvalho, A. M., Santos-Buelga, C., Ferreira, Isabel C.F.R. (2015). Scientific validation of synergistic antioxidant effects in commercialised mixtures of *Cymbopogon citratus* and *Pterospartum tridentatum* or *Gomphrena globosa* for infusions preparation. *Food Chemistry*, 185, 16–24.
14. Sales, F., (Coord) (2011). *Plantas aromáticas e medicinais do Parque Natural da Serra da Estrela*. Guia Etnobotânico. Seia, Portugal: CISE, Município de Seia.
15. Talavera, S. (2001). *Pterospartum L.*, In Castroviejo, S., (eds.). *Flora Iberica 7 (I)*, 133-137. Real Jardín Botánico, CSIC, Madrid.
16. Turland, N. J., Wiersema, J. H., Barrie, F. R., Greuter, W., Hawksworth, D. L., Herendeen, P. S., Knapp, S., Kusber, W.-H., Li, D.-Z., Marhold, K., May, T. W., McNeill, J., Monro, A. M., Prado, J., Price, M. J. & Smith, G. F. (eds.) (2018). *International Code of Nomenclature for algae, fungi, and plants (Shenzhen Code)*, adopted by the Nineteenth International Botanical Congress Shenzhen, China, July 2017. *Regnum Vegetabile 159*. Glashütten: Koeltz Botanical Books. DOI <https://doi.org/10.12705/Code.2018>.
17. Vitor, R. F., Mota-Filipe, H., Teixeira, G., Borges, C., Rodrigues, A. L., Teixeira, A., Paulo, A. (2004). Flavonoids of an extract of *Pterospartum tridentatum* showing endothelial protection against oxidative injury. *Journal of Ethnopharmacology*. 93(2-3), 367-370..