History/Traditional Use

In traditional Chinese medicine (TCM), *Astragalus membranaceus* is called huang qi. Astragalus root was mentioned in the foundational Chinese text on herbal medicine, Shen-nong Ben-cao Jing, a body of work which is attributed to the creator of Chinese civilization and agriculture (Shennong). The root is traditionally classified as a superior herb because of its tonifying activity. This means that it is used to increase the energy in certain parts of the body.



 世 Huang (yellow) Qi (venerable)

Astragalus/Huang qi

Plant of the Month

By Hava Waldstreicher, Alkemist Labs

Astragalus membranaceus Fisch. ex Bunge



Nomenclature

Two botanists, Carl Moench and Alexander von Bunge, both gave the name *Astragalus membranaceus* to different plants, in 1794 and 1868 respectively. *A. membranaceus* Moench is illegitimate though, because he did not follow the International Nomenclature Code when he gave it the name. However, *A. membranaceus* Fisch. ex Bunge is also illegitimate because Moench used the name first. Since the discrepancy was not caught until relatively recently, this has created quite the issue. It was proposed in 2016 that the more recent name (from Bunge) should be conserved because it describes a more commercially and scientifically relevant plant. A year later, The XIX International Botanical Congress voted in favor of the proposition.

Pharmacology

Most of the research on astragalus root has focused on its effects on the immune system. The evidence from clinical trials and pharmacological data shows that it is useful for preventing the common cold, aiding cancer treatments, and improving the cardiovascular system. Data shows that oral administration of the root increases interferon production, which are proteins that signal the presence of viruses in the bloodstream.

Microscopic characteristics



Cultivation/Preparation

Astragalus grows on mountainsides and in grasslands in Northeastern China, Siberia, and Central Mongolia. Four to five-year-old plants are harvested in the spring and autumn. The rootlets and root head are removed, then the roots are laid out to dry in the sun. The highest quality material consists of whole roots around 30 cm long, and the leftover shavings from sliced roots are the lowest quality. In TCM, it is most common for the root to be taken in combination with other botanicals in soup, tea, pill or extract form. In North America, astragalus is available on its own or in blend form as a capsule, pill, tablet, or liquid extract.



Illustration of astragalus from 1249

膜炎黄芪 Astragalas membranaceus (Fisch.) Bge. (张柱芝绘 1. 框 2. 花枝 3. 花草炙难,难兰 4. 章兰 5. 花崎 6. 果序

References

- http://www.botanicalaccuracy.com/2014/12/why-does-medicinal-plant-astragalus.html
- https://apirs.plants.ifas.ufl.edu/site/assets/files/375067/375067.pdf
- <u>https://www.motherearthliving.com/plant-profile/astragalus</u>
- Du, C., Applequist, W.L., Liu, P., & Ma, J. (2016). (2431) Proposal to conserve the name Astragalus membranaceus Fisch. ex Bunge against A. membranaceus Moench (Leguminosae). Taxon, 65(2) 392-393. (https://onlinelibrary.wiley.com/doi/epdf/10.12705/652.24)
- Lindon, H. L., Hartley, H., Knapp, S., M. Monro, A., & Turland, N. J. (2020). XIX International Botanical Congress, Shenzhen: report of the Nomenclature Section, 17 th to 21 st July 2017. PhytoKeys. doi:10.3897/phytokeys.150.50687 (<u>https://phytokeys.pensoft.net/article/50687/list/9/</u>)
- Upton, R. (1999). Astragalus root: Astragalus membranaceus & Astragalus membranaceus var. mongholicus: analytical, quality control, and therapeutic monograph. American Herbal Pharmacopoeia.
- Zhao, Z. and Chen, H. (2014). *Chinese Medicinal Identification: An Illustrated Approach.*