



## Bai Shao

Nourishes blood

Bai Shao is a medicinal plant of the genus *Paeonia* found in China. It has the ability to nourish the blood, regulate menstruation, relieve pain, and provide a calming effect. Bai Shao is harvested from Zhejiang province in China. Bai Shao has a therapeutic effect on the nervous and immune systems due to the active ingredients paeoniflorin, albiflorin and paeonol [1]. Paeoniflorin is the main active component for neuroprotection. The protective effect on the nervous system may be achieved by the regulation of the Ca<sup>2+</sup>/calmodulin - dependent protein kinase II (CaMKII)/cAMP - response element binding protein (CREB) signaling pathway [2]. Bai Shao, has been listed as an ODI ingredient in the United States and is used as a healthy food ingredient in China. It is a widely used herb in the world.



## Gardenia

Promotes calmness

Gardenia is harvested from Jiangxi province in China. Due to the warm climate, the quality of Gardenia is higher than other production areas with a smaller size and excellent quality. Geniposide and genipin are the most important iridoid compounds isolated from Gardenia. Its scientifically backed pharmacological properties that provide a multitude of beneficial effects on the nervous, cardiovascular, digestive systems along with hepatoprotective activity, antidepressant activity, and anti-inflammatory activity [3]. Gardenia has also been declared as the first batch of dual-purpose plants used for regular food and medicine in China. It has been listed in ODI ingredients in the United States.



## Silk Tree

Improve insomnia

The Silk Tree is harvested from Guangxi province in China with a higher quercitrin concentration. Several active compounds are isolated from the Silk Tree, including flavone derivatives, lignan glycosides, and saponins [4]. Traditionally, the flower buds of Silk Tree are used to treat insomnia, traumatic injuries, diuresis, asthenia, and dementia in TCM. Silk Tree has been listed as an ODI ingredient in the United States.



## Tree Peony

Promotes calmness

Tree Peony is the dried root bark of *Paeonia suffruticosa* Andr. It is harvested from Anhui Province in China. Paeonol, an active ingredient derived from Tree peony root bark, can inhibit the central nervous system and has effects on sedative and hypnotic. Studies have shown that paeonol can enhance the anticonvulsant effect of phenobarbital [5]. Tree Peony has been listed as an ODI ingredient in the United States and is used as a healthy food ingredient in Asia. It is a widely used herb in the world.

- [1] Tan YQ, Chen HW, Li J, et al. Efficacy, Chemical Constituents, and Pharmacological Actions of Radix *Paeoniae Rubra* and Radix *Paeoniae Alba*. *Front Pharmacol*. 2020 Jul 10; 11: 1054
- [2] Zhang, Y., Qiao, L., Xu, W., et al. (2017). Paeniflorin attenuates cerebral ischemia-induced injury by regulating Ca<sup>2+</sup>/CaMKII/CREB signaling pathway. *Molecules* 22, 359
- [3] Chen L, Li M, Yang Z, et al. *Gardenia jasminoides* Ellis: Ethnopharmacology, phytochemistry, and pharmacological and industrial applications of an important traditional Chinese medicine. *J Ethnopharmacol*. 2020 Jul 15; 257: 112829
- [4] Jung YH, Ha RR, Kwon SH, et al. Anxiolytic effects of Julibioside C1 isolated from *Albizia julibrissin* in mice. *Prog Neuropsychopharmacol Biol Psychiatry*. 2013 Jul 1; 44: 184-92
- [5] Wang Y, Ming L, Zende Y, et al. Study on experimental epilepsy of total dancapin [J]. *Chinese Pharmacology Bulletin*, 1997, 13 (3):268 (in Chinese)

Enriching Quality of life