

IX.A.4. ASTRAGALUS MEMBRANACEUS (Fisch.) Bunge

Astragalus

ALGEMENE EN BOTANISCHE INFORMATIE

- Familie: Fabaceae - Vlinderbloemigen
Naam: Milkvetch (E.),
Volksnamen: hòàng k'ý, huang-chi, huangoi, huangqi, huángqi, hwanggi, membranous milkvetch, milkvetch, Mongolian milk-vetch, neimeng huangqi, ogi, ougi, zhongfeng, naomaitong.
- Soorten: A. mongholicus Bunge, veel andere Astragalussoorten ook in de Alpen
Astragalus glycyphyllos L. (Hokjespeul): enige inheemse soort
- Ecologie, teelt: Vaste plant, 40 cm hoog, groene bladeren 3 tot 6 cm lang,
Inheems in China, Korea, Mongolie en Siberie (5,6)
Gekweekt in N-China en Korea
- Naamverklaring: astragalos (Gr.) hoekig, kantig naar de hoekige stengels en wortels, wervel

MATERIA MEDICA

Astragali radix,

De wortel van Astragalus membranaceus (Fisch) Bunge en Astragalus mongholicus Bunge (Fabaceae) (1,2)

Beschrijving: Kleur licht-geel tot geel-bruin. Smaak ietsje zoet. Zachte geur.

SAMENSTELLING

- ** triterpeensaponinen: astragalosiden en iso-astragalosiden
- ** polysacchariden: astragalan, astraglukan AMem-P (3,13): immuunmodulerend
- * Isoflavanoiden (0,02%) in kleine hoeveelheden, o.a. fromonetine (oestrogeen)

FARMACOLOGIE

- ** immuunmodulerend, verhoogt de weerstand o.a. IgA en IgG worden verhoogd. NK cellen worden gestimuleerd, fagocytose activiteit (RES systeem) verbeterd.
 - * Beschermen cellen tegen verschillende virussen (hepatitis B, coxackie B2, influenza) door o.a. aanmaak van interferon (Yang 1990)
 - * adaptogeen: verbetert lichamelijke uithouding en geestelijke leerprocessen (dierproeven)
- Nota: Astragalus is meer een immuunmodulator met enige adaptogene werking

INDICATIE

IMMUUNSYSTEEM (VERHOGEN WEERSTAND TEGEN INFECTIES)

- ** Verkoudheid, griep, vooral bij zwakte Zie Echinacea, Sambucus
- * Chronische bronchitis
- * Bij kankertherapie om weerstand te verbeteren
- * Bij Aids therapie

HART EN BLOEDVATEN

- * Na hartinfarct of ouderdomshart + Crataegus
- * Hoge bloeddruk, circulatie

SUIKERZIEKTE / OUDERDOMSDIABETES + Arctium lappa + Trigonella

VOLKSGENEESKUNDE CHINA (CHANG)

- * Nephritis
- * Oedeem
- * Lepra

RECEPTUUR EN BEREIDINGSWIJZEN

Radix Astragali

- Decoct: 10 tot 30 gr. daags bij chronische neusverkoudheid
3 tot 6 gr. decoct in 150cc water, 3x daags
- Tinctuur (1:5) ethanol 30%, 3 tot 5 ml 3x daags
- Zalf of olie 10% op wonden

Species (kruidenmengsels uit de Chinese kruidengeneeskunde)

- Combinaties met *Ligustrum lucidum*, *Codonopsis* en *Panax ginseng*
- *Astragalus* (outer energy) + *Panax ginseng* (inner energy): in de sport en bij zwaar buitenwerk om de ademhaling te versterken (Ron Teegarden)
- *Astragalus* + *Angelica sinensis*: om de bloedcirculatie te verbeteren (bij zwakte?)
- *Astragalus* + *Glycyrrhiza uralensis*: om het bloedsuikergehalte te reguleren

GESCHIEDENIS EN WETENSCHAPPELIJK ONDERZOEK

- Zeer lang in gebruik in Oosten, vooral China
- Andere soorten in Ayurveda: gomharsen uit *A. gummiferum* (*Tragacanth*) en anderen. (Nadkarni - Indian Materia Medica)

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Klinische onderzoeken vlg WHO monografie

Oral or intranasal administration of an aqueous *A. membranaceus* extract to 1000 human subjects decreased the incidence and shortened the course of the common cold. Two months of oral administration of the herb significantly increased the levels of IgA and IgG in the nasal secretions of patients susceptible to the common cold. Details of these studies were not available.

A hot water extract of *A. membranaceus* root taken by human subjects was reported to have a pronounced immunostimulant effect. Human adults treated with an oral dose of *Astragalus* root (15.6 g person per day for 20 days) significantly increased serum IgM, IgE, and cyclic AMP concentrations. Extracts of *A. membranaceus* have been further reported to stimulate the production of interferon, a protein with antiviral activity, in both animals and humans in response to viral infections. A hot water extract of the drug administered intramuscularly for 3–4 months to patients with coxsackievirus B myocarditis enhanced natural killer cells, a response which was mediated through interferon induction. Furthermore, both natural and recombinant interferons enhanced the antiviral activity of an *A. membranaceus* extract.

Astragalus teelt vlg Richter

Market Products: (root); Market size: 1,700 hectares (world), 560 ha (North America)

Culture: Seed density: 130-160 seeds/gram Exposure: full sun, Soil: well-drained, deep, moist, alkaline, Crop duration: 4-5 years. Sowing rate: 6-8 kg/ha (direct), 3-4kg/ha (indirect). Planting: can be started in deep plugs, but suffers transplant shock easily. Probably better to sow direct in field, in early spring or fall. Scarification helps speed germination. Harvested in fall, lateral roots trimmed, dried partially and then sliced 0.5 cm thick, and then further dried. Field spacing: 75-100cm between rows x 25cm within rows. Yield: 7000kg/ha (year 4-5). Pests: no data

Diseases: unidentified root rot when in wet conditions.

Sowing rate: 75g/1000 plants. Planting: sow in deep plugs 19-20 weeks before sale; transplant before plugs are root-bound. Highly susceptible to mites. Seeds to finished plugs: 10 weeks. Plugs to saleable plants: 9 weeks. Pests: spider mite Diseases: damping-off.

Algemene literatuur

- Teeguarden Ron - Chinese tonic herbs. Japan Publications 1985
- Astragali radix. WHO monografie (doc. Maurice Godefridi)

TYPOLOGIE

- Astragalus behoort samen met Panax ginseng, Schisandra en Polygonum multiflorum tot de major tonic uit de Chinese kruidengeneeskunde.
- Invloed op meridiaanbanen: Milt, Longen en Drievoudige verwarmer.
- Energie tonicum, warme energie
- Smaak: zoet
- Zou meer geschikt zijn voor jonge, actieve mensen
- Verwarmt de oppervlakte van het lichaam, beschermt daarom tegen koude.