



*Agribusiness in Sustainable Natural
African Plant Products*

GRIFFONIA SIMPLICIFOLIA

Common name	: Griffonia
Scientific name	: Griffonia Simplicifolia
Local name (Akan)	: Kajya, Atooto, Poopoo

Origin

Griffonia simplicifolia plant is found principally in the West African countries of Ghana, Ivory Coast and Togo. The plant is adapted to wide a range of agro climatic conditions. It is common in the coastal plains as well as secondary forest. It thrives well on termite hills and on mountain slopes.

Ecology and Botany

In the coastal plains it grows as a shrub to a height of about 2 metres whilst in the forest zones it takes the form of climber around tall trees. There is no commercial cultivation of the plant but it is common to find *Griffonia* covering several hectares of land in the wild.

Griffonia is widely distributed in the country. The highest concentration is found along the coast from Komenda to Kasoa. Other areas of concentration include Dodzi, Akatsi, Agbezume and Nkonya areas of the Volta region, Bomaa, Nsoatre and Ahafo areas of the Brong Ahafo region: Nyinahini, Kokofu, Ejisu areas of the Ashanti region: Akwamu, Somanya, Kwahu areas of the Eastern region and Sefwi, Enchi and Asankragua areas of the Western region. Though no cultivation of the plant exists, it can be seen stretching over several hectors of land in the Gomoa and Mfantsiman districts of the central region

Griffonia normally flowers between August and October and matures in December-February.



Fig 1: Griffonia pods and



partially dried Seeds

Uses of Plant by Locals

Traditional African uses for the plant include use of the stem and roots as chewing sticks, leaves for wound healing, and leaf juice as an enema and for the treatment of bladder and kidney ailments. A decoction of the stems and leaves is also used to stop vomiting and to

treat congestion of the pelvis. Griffonia seed is also reputed to be an aphrodisiac, as well as an antibiotic and a remedy for diarrhea, and stomachache, dysentery and as a purgative.

Pharmacological Activities

L-5-Hydroxytryptophan (5HTP) is decarboxylated "in vivo" to yield serotonin, a neuro-hormonal transmitter released by neurons in the brain, spinal cord and sympathetic ganglia.

Therapeutic Applications

L-5-Hydroxytryptophan is reported to be of greatest benefit in psychiatric and neurological disorders where there is a deficiency of neuro serotonin. L-5-Hydroxytryptophan is also indicated for its uses in alleviating the symptoms of a number of common syndromes such as anxiety and depression. L-5-Hydroxytryptophan is also cited as a natural relaxant, to help alleviate insomnia by inducing normal sleep, for the treatment of migraine and headaches and to aid in the control of cravings such as in eating disorders. L-5-Hydroxytryptophan is also thought to assist and strengthen the immune system and may help to reduce the risk of artery and heart spasms. L-5-Hydroxytryptophan has also been cited in the management of Parkinson's disease (PD) and epilepsy.

Recent research suggests that Griffonia seed raises serotonin levels in the brain. Serotonin is important in regulating brain chemistry and is especially important in problems such as depression, insomnia, and eating disorders. Theoretically, supplementing with Griffonia seed can raise serotonin levels and provide relief from depression and insomnia. Griffonia seed should also regulate appetite through the increase in serotonin, leading to weight reduction in obese persons, while helping normalize the weight of people suffering from anorexia nervosa. Griffonia seed has also been used in treating fibromyalgia and chronic headaches in order to reduce pain.

Selected references

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