

FGCU Food Forest

Plant Database

Winged Bean (*Psophocarpus tetragonolobus*)

Quick Facts

Origin: Papua New Guinea
Description: Vine with climbing stems
Harvest: Summer
Flower: Light blue in color
Tolerance: USDA Zones 8 – 11, needs at least 180 frost-free days

General Description: The winged bean, also known as the Goa bean, asparagus pea, four-angled bean, four-cornered bean, Manila bean, Mauritius bean, and winged pea, is a tropical legume plant native to New Guinea. It grows abundantly in hot, humid equatorial countries, from the Philippines and Indonesia to India, Burma, Thailand and Sri Lanka. It is widely known, yet grown on a small scale in Southeast Asia and Papua New Guinea.



- **Native Origin:** Wing beans are only known to be cultivated, no wild specimen has ever been found. Original cultivation began in Papua New Guinea where the greatest diversity of varieties exist. Wing beans thrive in tropical climates with warm weather, humidity and abundant rainfall. They are grown in Southeast Asia, specifically areas within both the Philippines and Thailand. Wing beans also grow prolifically in tropical Africa and within the islands of Hawaii.
- **Harvest Techniques:** Winged Bean seed has hard coat skin that may decrease and delay the seed germination, because water cannot get into inside of seed. In many cases, seeds may have relatively low germination rate, 50-60%, if planted without any special treatment. Soak seeds in water for 1-2 days, some seeds will swell when absorbing water and some seeds may not swell at all due to the hard coat skin. Plant these swollen seeds into moist soil for further germination process and collect these unaffected seeds for special treatment as described

below. The germination problem for these unswelled seeds can be improved by scratching with sand paper or by breaking with a shape knife on the hard coat skin at the furthest location from the seed eye. This pre-seeding treatment will allow moist/water to get into the inside to trigger the seed germination process. A high germination up to 90% can be obtained. Pick the shoots and leaves while they are still tender. Harvest the large, pale blue flowers for salad. Pick the squarish pods when they are 1 to 2 inches long. Use the starchy tubers as you would potatoes. Dig, peel and roast them in the fall.

- **Season of Harvest:** Wing beans are available during the summer months.
- **Culinary Uses:** The Wing bean plant produces pea-like beans with four-winged edges. Its lawn green pods are best picked when immature, so that the pod and beans within can be eaten. Their flavor is sweet like many pea varieties, with a clean grassy finish. If harvesting the leaves, they have a mild spinach-like flavor and the flowers' flavor has been compared to the flavor of mushrooms. The whole Winged Bean plant is edible. The shoots, flowers, roots, leaves, pods and even the seeds can be eaten. The pods, which can be green, or purple are four-sided and flare from the center into ruffled ridges or "wings." Choose small beans with no sign of discoloration. Because the shorter ones are more tender. If you get the longer ones, the cooking time might also be longer. Wash and trim before using.
- **Nutritional Value:** Wing beans offer an abundance of essential nutrients, including protein, complex carbohydrates, B vitamins, calcium, iron and fiber.

Winged Bean

Scientific Classification

Kingdom:	Plantae
(unranked):	Angiosperms
(unranked):	Eudicots
(unranked):	Rosids
Order:	Fabales
Family:	Fabaceae
Subfamily:	Faboideae
Tribe:	Phaseoleae
Genus:	Psophocarpus
Species	<i>P. tetragonolobus</i>

Sources

http://www.specialtyproduce.com/produce/Wing_Beans_321.php

<http://www.evergreenseeds.com/wingedbean.html>

<http://heartandhearth.blogspot.com/2008/08/winged-beans-stewed-in-coconut-milk.html>