



Food: Just Grow It!



PIGEON PEA

Types & Climatic Requirement

Pigeon pea is indigenous to India and spread to South East Asia. It is now grown throughout the tropics, especially in India and East Africa (van der Maesen). The International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) in India, has conducted research and breeding with pigeon pea. The species is very variable and numerous cultivars are available. In Hawaii, the low-growing cultivars 'Norman' and 'FL81d' are recommended by the Natural Resource Conservation Service for their root knot nematode resistance.

Pigeon pea is cultivated either as a food crop (dried pea or vegetable pea) or as a cover/forage crop species depending upon the region. In some regions of Africa and Puerto Rico, pigeon pea is grown as a canned seed cash crop. In Hawaii it is used primarily as a forage, pasture, shade, or cover crop.

Pigeon pea is common in the low dry and humid tropics but has been reported to be cultivated up to elevations of 6,000 ft in the Himalayas and to 9,000 ft in Venezuela. The optimum temperatures are between 64 and 100 degrees F. Optimal rainfall is between 24 – 40 inches per year and will tolerate some draught conditions but most cultivars will not tolerate frost.

Soil Management and Fertility

Pigeon pea adapts to a wide range in soil types. In Hawaii, it was planted in wastelands and will grow in infertile soils. It grows on acidic sands in Sahel and alkali clays in India but will not tolerate waterlogged soils or excessive soil salinity. It grows best at soil pH between 5.0 – 7.0 and has adapted to soil pH as high as 8. It is reported to respond well to phosphorus fertilizer

applications, moderately to potassium applications but nitrogen applications usually reduce yields.

Planting

Plant seeds 1 inch deep, 1-2 feet apart in rows 2-4 feet apart. If planting for cover crop, broadcast 40-60 lbs. pure live seed per acre.

Insect and Disease Control

Pods can be infested with borers that damage both pods and seeds. Beetles, aphids and scales may be minor pests. Fusarium soil fungus causes wilt in India. Root rots, stem cankers, and rusts have also been reported in other areas. In humid areas, leaf spot fungi and downy mildew may occur.

Harvesting

Flowering usually begins in 120-150 days and seeds mature in 95 to 250 days but can be as early as 60 and 100 days respectively depending on cultivars. Pigeon pea is more commonly used as a pulse crop throughout the world. Pulse crops are legumes in which the dried seeds are used as human food. When used as a vegetable, pigeon pea should be harvested when the seeds are fully grown but just before they lose their green color.

Seed Availability

For the purposes of the Food: Just Grow It! Project, seeds of soybean are available from the project directors at the University of Hawaii.

Reference:

Pigeon Pea. *Cajanus cajan*.

<http://www2.ctahr.hawaii.edu/sustainag/pigeonpea.htm>

ECHO Pigeon Pea Plant information sheet.

<http://www.echonet.org/tropicalag/plantinfo/Cajanuscajan.pdf>

Dr. Martin L. Price. Pigeon Pea.

<http://www.echonet.org/tropicalag/technotes/PigeonPe.pdf>

Nutrition Facts	
Serving Size 1/2 cup (77g)	
Servings Per Container	
Amount Per Serving	
Calories 80	Calories from Fat 10
% Daily Value*	
Total Fat 1g	2%
Saturated Fat 0g	0%
Cholesterol 0mg	0%
Sodium 180mg	8%
Total Carbohydrate 15g	5%
Dietary Fiber 5g	19%
Sugars --g	
Protein 5g	
Vitamin A 2%	• Vitamin C 35%
Calcium 4%	• Iron 6%
*Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs:	
	Calories: 2,000 2,500
Total Fat	Less than 65g 80g
Saturated Fat	Less than 20g 25g
Cholesterol	Less than 300mg 300mg
Sodium	Less than 2,400mg 2,400mg
Total Carbohydrate	300g 375g
Dietary Fiber	25g 30g
Calories per gram:	
Fat 9 • Carbohydrate 4 • Protein 4	