



## Vegetable Soybean

### Climatic requirements

Soybeans can be grown year-round in most locations in Hawaii by planting well adapted varieties. 'Kahala', a vegetable-type soybean variety developed by the University of Hawaii, yields well in Hawaii. Vegetable soybean varieties developed in Japan will have good growth and production only when planted between March and August.

### Soil management and fertilizers

Soybeans will grow well in any well drained soil that is neither too acid nor too alkaline. An application of lime may be beneficial if the soil is too acid. If soils are too alkaline, fertilizers that lower pH, such as ammonium sulfate, can be used. Composts or manure can be applied at 10–20 lb per 100 square ft to improve soil condition and fertility. Root-knot nematodes will not be a problem when the resistant 'Kahala' variety is grown. If other varieties are used, application of nematicides<sup>z</sup> may be necessary before planting.

Apply a general garden fertilizer such as 10-30-10 at 2–3 lb per 100 square ft at planting time. A second application in the same amount should be applied about four weeks later, when the plants begin to flower.

### Planting

Soybeans are planted directly into the seedbed at a depth of 1–1½ inches. Spacing between rows should be 18 inches; allow a spacing of 3–4 inches between plants within the rows. Soybean seedlings are very susceptible to bird injury as they emerge from the soil. The best way to prevent bird injury is to cover the newly seeded row with cheesecloth strips or wire-mesh screen slightly raised above the soil. Remove the protective covering soon after the seedlings have developed into the cotyledon (first-leaf) stage.

### Irrigation and cultivation

Soybeans should be irrigated on a regular basis so that there is an ample moisture supply for the plants at all times. Cultivate whenever necessary to control weeds and to prevent surface crusting of the soil.

### Insect control

The insects that most commonly attack soybeans are the French bean fly, Chinese rose beetle, red spider mite, and stink bug. The French bean fly can be controlled by a regular insecticide<sup>z</sup> spray program starting from the time of seedling emergence. The red spider mite can be controlled with the use of sulfur-containing insecticides<sup>z</sup>.

### Disease control

Diseases are not often a serious problem with vegetable soybeans in Hawaii. Problems can arise, however, if weather conditions are favorable for disease organisms. *Rhizoctonia* root rot may affect young plants during wet weather or when the soil becomes waterlogged. Plant in clean, well drained seedbeds, or treat the soil with a fungicide<sup>z</sup> before planting. Foliage diseases may be a problem during wet weather and can be controlled with fungicides<sup>z</sup>.

### Harvesting

Vegetable soybeans are ready for harvest about 65–70 days after planting. The whole plant is usually pulled when a majority of the pods are well filled but before the pods turn yellow. Cooking time will be influenced by the degree of tenderness of the bean.

### Seed availability

Seeds of 'Kahala' are available from the CTAHR Department of Horticulture and from some garden shops. Seeds of other vegetable soybean types are available from seed companies, particularly from Japanese seed companies.

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<sup>z</sup>Read any pesticide's label carefully to ensure that its use on soybeans is allowed, and follow the label directions.

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