

NUÑAS

Popping Beans

Phaseolus vulgaris

Fabaceae – Pea

ECHO® PLANT INFORMATION SHEET

Origin

From findings discovered in a cave in Peru, experts say that Nuñas may have been available 11,000 years ago. This discovery indicates nuñas were around well before the Incas, and perhaps before the common bean ('frijol', Spanish). Because of their age, Nuñas have been called "a kind of witness of the first steps of plant domestication." Today, Nuñas are grown in the highlands from Ecuador to southern Peru.

Uses

Nuñas are used by people living in the high mountains where water boils at too low a temperature to cook ordinary dry beans. (High altitude cooking takes a long time and a lot of fuel, and trees are scarce in upland areas.)

Common Names

- Spanish
 - Nuñas

Cultivation

The morphology of the Popping Bean is similar to that of the common bean. It is an indeterminate climbing vine, 2-3 m (6-9 ft) tall, that produces a large number of pods from many self-sterilize flowers. Each pod contains 5-7 seeds. Most seeds are spherical to oval and range in size from 0.5-0.9 cm (1/4-1/2 in) in diameter. They are best grown at 2,500 m (7,500 ft), but are grown in Peru at elevations ranging from 1800-3000 m (5,400-9,000 ft). Nuñas require 500-1300 mm (20-50 in) of rain throughout the growing season. As with most common beans, Nitrogen fixing will be more effective in light, well-drained soils. Because of its vining habit, the Nuña plant is almost always intercropped with corn, so it can climb up the stalks. To prevent cross-pollination due to outcrossing with common beans and string beans, which reduces the beans ability to pop, Nuñas are grown in different parts of the field from these crops. Nuñas are frost susceptible; minimum temperature is 2-5° C (36-41° F). The maximum temperature Nuñas will tolerate is about 25° C (77° F).

Harvesting and Seed Production

Nuñas can be diverse in color. In the highlands, harvest occurs 5-9 months after planting, but at 25° C (77° F) mean temperature, Nuñas will mature in about 80 days. Seeds may be stored for years and still retain their "nuña-ness;" after 10 years of storage at 4° C (40° F), beans stored at the USDA seedbank had lost none of their popping ability.

Cooking and Nutrition

Nuñas are the bean counterpart of popcorn. When heated for 10-15 minutes in a hot frying pan coated with oil they burst out of their seed coat. During cooking, the heat and moisture build up inside the shell causing it to pop, though the popping is less dramatic than with popcorn. The bean doesn't explode and fly into the air as popcorn does, but instead opens like a small butterfly spreading its wings. The toasted/popped product tastes like roasted peanuts and is served as a side dish or eaten as a snack. Nuñas contain 22% protein; other nutrient levels are high and similar to those of the common bean.