
Morton, J. 1987. Banana Passionfruit. p. 332–333. In: Fruits of warm climates. Julia F. Morton, Miami, FL.

Banana Passionfruit

Passiflora mollissima Bailey

Passiflora tomentosa var. *mollissima* Tr.& Planch

Tacsonia mollissima HBK.

- [Description](#)
 - [Origin and Distribution](#)
 - [Varieties](#)
 - [Climate](#)
 - [Propagation](#)
 - [Culture](#)
 - [Season](#)
 - [Keeping Quality](#)
 - [Pests and Diseases](#)
 - [Food Uses](#)
-

A distinctive and much admired passionfruit relative, *Passiflora mollissima* Bailey (syns. *P. tomentosa* var. *mollissima* Tr. & Planch.; *Tacsonia mollissima* HBK.), was given this appealing and appropriate English name in New Zealand. In Hawaii, it is called banana *poka*. In its Latin American homeland, it is known as *curuba*, *curuba de Castilla*, or *curuba sabanera blanco* (Colombia); *tacso*, *tagso*, *tauso* (Ecuador); *parcha* (Venezuela), *tumbo* or *curuba* (Bolivia); *tacso*, *tumbo*, *tumbo del norte*, *trompos*, or *tintin* (Peru).

Description

The vine is a vigorous climber to 20 or 23 ft (6-7 m), its nearly cylindrical stems densely coated with yellow hairs. Its deeply 3-lobed leaves, 3 to 4 in (7.5-10 cm) long and 2 3/8 to 4 3/4 in (6-12 cm) wide, are finely toothed and downy above, grayish-or yellowish-velvety beneath. The stipules are short, slender and curved. The attractive blossom has a tube 3 to 4 in (7.5-10 cm) long, gray-green, frequently blushed with red, rarely downy; corolla with 5 oblong sepals and deep-pink petals flaring to a width of 2 to 3 in (5-7.5 cm); and a rippled, tuberculated, purple corona. The fruit is oblong or oblong-ovoid, 2 to 4 3/4 in (5-12 cm) long, 1 1/4 to 1 1/2 in (3.2-4 cm) wide. The rind is thick, leathery, whitish-yellow or, in one form, dark-green, and minutely downy. Very aromatic pulp (arils), salmon-colored, subacid to acid and rich in flavor, surrounds the small, black, flat, elliptic, reticulated seeds.

Origin and Distribution

The banana passionfruit is native and commonly found in the wild in Andean valleys from Venezuela and eastern Colombia to Bolivia and Peru. It is believed to have been domesticated only shortly

before the Spanish Conquest. Today it is commonly cultivated and the fruits, which are highly favored, are regularly sold in local markets. In 1920, the United States Department of Agriculture received seeds from Guayaquil, Ecuador (S.P.I. No. 51205), and from Bogotá, Colombia (S.P.I. No. 54399). The vine is grown in California as an ornamental under the name "softleaf passionflower". It has never succeeded in Florida; is grown to some extent in Hawaii and the State of Madras, India. The climate of New Zealand seems highly suitable for it and it has been grown there, more or less commercially, for several decades.

Varieties

In general, the fruit is smaller in Peru than in Colombia and Ecuador. There are said to be several varieties. A form called *curuba quiteña* in Colombia is dark-green externally even when fully ripe, the apex is abruptly pointed and furrowed; the pulp is dark-orange or orange-brown.

Climate

This species is at home at elevations between 6,000 and 7,200 ft (1,800-3,200 m) in the Andes, and has adapted well to altitudes of 4,000 to 6,000 ft (1,200-1,800 m) in Hawaii and New Zealand. It can tolerate brief drops in temperature to 28.4° F (-2° C).

Propagation

The vine can be propagated from cuttings but is usually grown from seeds which normally germinate in 10 weeks. The time can be shortened to 5 weeks by preliminary soaking in lukewarm water.

Culture

The seedlings can be transplanted when 3 months old and need to be trained onto a horizontal trellis 6 1/2 ft (2 m) high with crosswires 16 in (40 cm) apart. At a vine spacing of 6.5 ft (2 m) each way, there will be 607 plants per acre (1,500 plants/ha). Less dense planting, allowing 10 ft (3 m) each way between vines, and 20 in (50 cm) between crosswires, will result in 445 vines per acre (1,100/ha). The first crop will be produced in 2 years. At dense spacing, and with good weed control and adequate fertilization, the annual harvest in Colombia will be 200 to 300 fruits per vine, amounting to 200,000 to 303,000 fruits per acre (500,000-750,000 fruits per ha), or about 31,000 to 47,000 lbs per acre (roughly the same number of kg per ha). The individual fruits range from 2 to 5 1/2 oz each (approximately 50-150 g). Some growers have practiced pruning, which improves air-flow, reducing disease, and facilitates weeding, irrigation, spraying and harvesting. It produces larger fruits but fewer and therefore is generally viewed as not practical as size is not important to the consumer. In India, the average yield is said to be 40 to 50 fruits per vine beginning with the 6th year from planting.

Season

There is more or less continuous fruiting the year around in Colombia. In New Zealand, the crop ripens from late March or early April to September or October.

Keeping Quality

The fruit stands shipment well and will keep in good condition in a dry and not too cold atmosphere for a reasonable length of time.

Pests and Diseases

In humid and poorly drained situations, some plantations suffer from nematodes (*Meloidogyne* sp.). Leaves and shoots may be attacked by leafhoppers (*Empoasca* sp.) and by *Dione* or *Agraulis*, *vanillae*; leaves and fruits may be plagued by mites (*Tetranychus* sp.); larvae of *Hepialus* sp. invade the flowerbud; stems may be bored and tunneled by *Heteractes* sp. and *Nyssodryx* sp. Occasionally

the fruits are attacked by fruit flies. Young shoots are prone to powdery mildew (*Asterinia* sp.) and anthracnose (*Colletotrichum* sp.) may affect the vine and fruits. Boron deficiency causes cracking of fruits. Sometimes, for physiological reasons not yet fully understood, 50 to 60% of the fruits may drop prematurely.

Food Uses

The pulp is eaten out-of-hand or is strained for its juice which is not consumed alone but employed in refreshing mixed cold beverages. In Bolivia, the juice, combined with aguardiente and sugar, is served as a pre-dinner cocktail. Colombians strain out the seeds and serve the pulp with milk and sugar, or use it in gelatin desserts. In Ecuador, the pulp is made into ice cream.

The New Zealand Department of Agriculture has developed enticing recipes to encourage the growing and utilization of the seeded pulp as pie filling, and also for making meringue pie, sauce, spiced relish, jelly, jam and other preserves. It is also advocated as an ingredient in fruit salad, especially with pineapple, and for blending with whipped cream as a pudding, and for cooking and preserving as an ice-cream topping.

Canning the juice with benzoate of soda as a preservative loses much of the quality and, therefore, there is as yet no commercial processing.

Food Value Per 100 g of Edible Portion*	
Calories	25
Moisture	92.0 g
Protein	0.6 g
Fat	0.1 g
Carbohydrates	6.3 g
Fiber	0.3 g
Ash	0.7 g
Calcium	4 mg
Phosphorus	20 mg
Iron	0.4 mg
Riboflavin	0.03 mg
Niacin	2.5 mg
Ascorbic Acid	70 mg

*Analyses made in Colombia.

Last updated: 9/9/115 by ch