

Cape Gooseberry

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SUMMARY

Cape gooseberry (*Physalis peruviana*) is a highly sought-after crop with economic significance as an exotic export. Widely embraced in breeding and cultivation programs globally, it is known in the United States as goldenberry or Pichu berry, paying homage to Machu Picchu and its Peruvian origins. Beyond its export allure, Cape gooseberries find their way into diverse culinary creations, such as fruit-based sauces, pies, puddings, chutneys, jams, and ice cream. Whether consumed fresh in salads, fruit salads, or as a batido (smoothie) in Latin America, the fruit's vibrant husk also serves as a decorative garnish in desserts at restaurants. Hot air drying enhances its qualities, including dietary fiber content, texture, and appearance. However, caution is advised, as unripe raw fruits, flowers, leaves, and stems may contain solanine and solanidine alkaloids, posing a poisoning risk to humans, cattle, or horses. This summary delves into the detailed importance of cultivating this versatile crop.

INTRODUCTION

Physalis peruviana, a member of the nightshade family (Solanaceae), originates from Chile and Peru, where it goes by various names such as aguaymanto, uvilla, or uchuva. In English-speaking regions, it is known as Cape gooseberry, goldenberry, and Peruvian groundcherry. With roots tracing back to the Inca Empire, the plant's cultivation history extends to 18th-century England and the Cape of Good Hope in South Africa. In the 20th century, *P. peruviana* gained global prominence, thriving in both temperate and tropical climates.



Taxonomy:

Botanically described by Carl Linnaeus in 1763, *P. peruviana* carries regional distinctions such as aguaymanto in Peru, topotopo in Quechua, uchuva in Colombia, and uvilla in Ecuador. The name "Cape gooseberry" is linked to its cultivation in England and the Cape of Good Hope, although alternative suggestions regarding its etymology exist. Despite the common name, it is unrelated to true gooseberries of the *Ribes* genus. The plant's introduction to Australia, New Zealand, and Pacific islands followed its establishment in South Africa.

Description:

Closely related to the tomatillo, *P. peruviana*, as a Solanaceae member, shares distant connections with tomatoes, eggplants, and potatoes. Functioning as an annual in temperate zones and a perennial in the tropics, it develops into a diffusely branched shrub with bell-shaped, drooping flowers. The beige husk expands from the calyx after the flower falls, encasing the round, smooth berry with a sweet, mildly tart flavor, resembling a miniature yellow tomato. The inflated calyx protects the fruit, contributing to an extended shelf life of 30–45 days at room temperature.

Nutrition:

Raw cape gooseberries consist of 85% water, 11% carbohydrates, 2% protein, and 1% fat. Providing 53 calories per 100 grams, they offer moderate levels of thiamine, niacin, and vitamin C. Oil analyses reveal linoleic acid and oleic acid as primary fatty acids, along with beta-sitosterol, campesterol, vitamin K, and beta-carotene.

Distribution and Habitat:

Physalis peruviana's genetic diversity hub is the Andes mountains, spanning Ecuador, Chile, Colombia, and Peru. Thriving in forests, forest edges, and riparian areas, it grows at elevations of 500–3,000 m. Its adaptability extends from sea level to high altitudes, with invasive tendencies observed in Hawaii and other Pacific islands. Diverse ecotypes worldwide exhibit variations in plant size, calyx shape, and fruit characteristics.

Cultivation:

Widely cultivated in tropical, subtropical, and temperate zones, *P. peruviana* finds success in Australia, China, India, Malaysia, and the Philippines. Preferring an annual average temperature of 13–18 °C, it tolerates temperatures up to 30 °C. Suited for Mediterranean climates, it is hardy to USDA hardiness zone 8 but susceptible to frost damage. Well-drained soil, full sun or partial shade, and sandy loam contribute to vigorous growth. Grown from abundant seeds with low germination rates, the plant also thrives from year-old stem cuttings.

**Pests and Diseases:**

South Africa faces challenges from cutworms, red spiders, potato tuber moths, hares, birds, mites, whiteflies, flea beetles, powdery mildew, soft brown scale, root rot, and viruses. New Zealand experiences potential infection by *Candidatus liberibacter solanacearum*. This comprehensive overview underscores the multifaceted nature of Cape gooseberry, from its culinary versatility to its global cultivation and potential challenges in pest management.

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