



THE NIGHTSHADE PLANT FAMILY

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The plant family **Solanaceae** is composed of at least 2,400 species of flowering plants. Though found worldwide, the nightshades are most abundant in tropical Latin America. Many are economically important as food or medicinal plants. Among the most familiar to us are the vegetables: potato, eggplant, tomatoes, and the garden pepper.

The **potato** (*Solanum tuberosum*) is one of the world's main food crops. The potato differs from other food crops in that the edible portion is a tuber. Highly digestible, potatoes are prepared for eating in many ways and are a major source of starch as well as amino acids, protein, vitamin C, and B vitamins.

The stem grows 20–40 inches tall, sprouting spirally arranged compound leaves. Underground, stems extend as stolens, the ends of which enlarge into 1–20 tubers of variable shape and size. The tubers have spirally arranged buds (eyes) that may remain dormant after the tuber is fully grown for up to 10 weeks or more. The tubers grow into plants identical to the parent plant.

A native of the Andes, the potato (also known as the common potato, white potato, or Irish potato) was carried by Spaniards into Europe during the 16th century. A century later, it had become the major food crop in Ireland. Damage to the potato crop by a fungal disease caused the Irish potato famine in the mid-1800s.

Eggplant (*Solanum melongena*) is a tender plant that requires a warm climate and is grown extensively in eastern and southern Asia (where it is native) and in the U.S. It is usually grown as an annual for its fleshy fruit. It has an erect, bushy stem; large ovate, slightly lobed leaves; and pendulous, violet, solitary flowers. The fruit is a large, glossy, egg-shaped berry, varying in color from dark purple to red, yellowish, or white, and sometimes striped. It is a staple in cuisines of the Mediterranean region.

The **tomato** (*Lycopersicon esculentum*), is also a plant of the nightshade family. The plant is generally multi-branched and has hairy, strongly odiferous, feathery leaves. The drooping, clustered, yellow flowers are followed by red, scarlet, or yellow fruits, which hang from the many branches of one stem. The tomato fruit varies in shape from spherical to elongate and in size from 0.6 inches across to more than 3 inches across. The Spanish were bringing tomatoes from South America to Europe by the early 16th century. The tomato was introduced to North America from Europe by the 1780s. Tomatoes are used raw or cooked as a vegetable or puree, and pickled, canned or sun-dried.

The garden **pepper** is one of many plants in the genus *Capsicum* of the nightshade family. Most noted is *C. annum*, *C. frutescens*, and *C. boccatum*, which are all native to Central and South America and cultivated extensively throughout tropical Asia and the equatorial regions of the developed world for their edible, pungent fruits. Red, green, and yellow mild bell or sweet peppers, rich in vitamins A and C, are used in seasoning and as a vegetable food. The pungency of hot peppers, including tabasco, chili, and cayenne peppers, comes from the compound capsaicin in the internal partitions of the fruit.

The nightshade vegetables have traveled worldwide throughout history before becoming a staple in American vegetable gardens and in everyday American cuisine.

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Tips for growing Nightshade Family:

- Well drained soil, **high in organic matter**
- Nightshade family crops can benefit from **early soil warming** through the use of clear plastic
- **Crop rotation**—rotate non-nightshade crops with these.

References

California Master Gardener Handbook.

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