Solanum lycopersicum **L.**, **Tomato**

(Lycopersicon esculentum, Lycopersicon lycopersicum, Lycopersicum esculentum, Solanum pomiferum)

- Cultivation of *S. lycopersicum* has been fraught with misconceptions; while today it is known mostly for its culinary uses, *S. lycopersicum* was originally thought to be poisonous and only grown in Europe as an ornamental; later Italians began growing it for food, where its exotic appearance gave it a reputation as an aphrodisiac, earning it the common name of Love Apple; although native Americans likely used them as a food source much earlier, use in Colonial America was largely by way of reintroduction via European immigrants; the Tomato is thought to have originated in South America and spread to North America through distribution and cultivation by native people; the specific epithet means wolf peach and is a reference to the resemblance of Tomato to the deadly nightshade’s fruit but with a larger size similar to a peach; deadly nightshade was associated with legends about transformation of witches and sorcerers into werewolves, hence the derivation of the name meaning wolf peach.

- Medium to dark green alternate leaves are typically odd pinnately compound, but can rarely be simple; most leaves are 6” to 12” long with 2” to 4” long ovate lobed or irregularly toothed leaflets; most have a scratchy pubescence; the small five petaled yellow flowers have narrow recurved petals and are not particularly showy; petals are subtended by five persistent linear or lanceolate green sepals; flowers are arranged in small clusters or longer racemes, or rarely panicles; the edible fruit are technically fleshy berries which mature in a variety of sizes, colors, and shapes; most are globose or pumpkin shape, while others are ellipsoid; size ranges from that of a cherry up to a record of over 7 pounds; the majority are about the size of a small to large apple; mature colors include the traditional shades of red, as well as yellows, oranges, dark blackish purples and various streaked or two-tone combinations; do not eat portions of the plant other than the fruit.

- Cultivars that are indeterminant have a main stem that continues to grow and take on a leaning, sprawling, vine-like habit with sequential set of fruit over an indefinite period of time, whereas determinant cultivars have more of a bush or shrub-like habit and often ripen most of the fruit over a fairly narrow window of time; weakly perennial under tropical climates with just the right conditions, *S. lycopersicum* are used in most locations as spring, summer, or fall annuals; spring and fall are the peak seasons for cultivation in our region as summer temperatures may be too high for fruit set and plants tend to decline in severe heat; hundreds if not thousands of cultivars have been selected, so it is best to consult your local garden center manager or extension service to determine the best cultivars for your local area.

- Tomatoes will grow in a wide variety of soils, but moist fertile garden soils will yield better results; most varieties fair best in full sun; this species will also thrive in container culture and most folks purchase liners to set out rather than direct seeding; a rather long litany of pests and diseases may cause issues with Tomatoes including blossom end rot, greenback, white back, leaf curling, whiteflies, aphids, red spider mites, Verticillium wilt, Fusarium wilt, tobacco mosaic virus, and tomato hornworms (larvae of the brown or gray hawk moth, *Manduca quinquemaculata*).

- From a landscape perspective Tomatoes can offer showy fruit, provide wildlife food, and incorporate an edible component into landscape designs; the cultivars with longer racemes or panicles of fruit may be more ornamental; a vigorous fruiting specimen in a container can make an attractive seasonal patio plant; those with indeterminant habits can be trained onto a temporary trellis or fence; avoid locations where pedestrians will brush the plant as the foliage can be scratchy and pungently scented.

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