

Solanaceae

Presented by Lindsay Nguyen



SOLANACEAE

(so-lan-AY-see-ee)

Common Name:

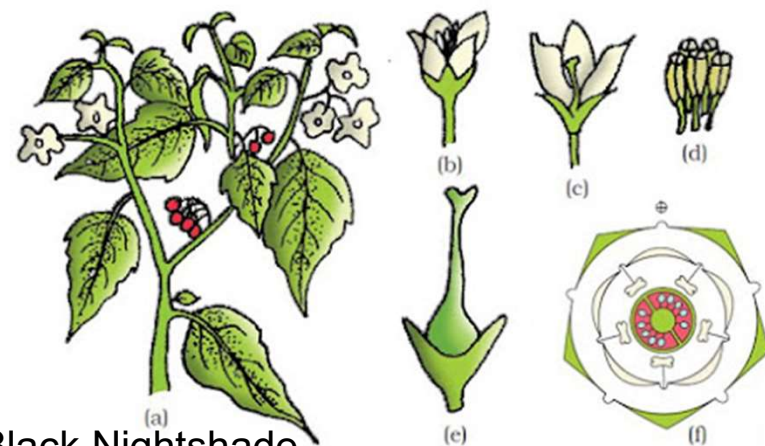
Nightshade Family, Potato Family

Popular Members of this Family:

Tomato, Potato, Eggplant, Bell Pepper, Chili Pepper, Tobacco



- ❖ Annuals, Biennials, Perennials
- ❖ Herbs, Shrubs, Small Trees, Vines
- ❖ Taproot
- ❖ Leaves Simple and Alternate
- ❖ Fruit is a Berry or Capsule
- ❖ Solitary or Clustered Flowers
 - Sepals and Petals, 5 in number and fused
 - 5 Stamens
 - A Superior Ovary, 1 situated above the attachment point of the other flower parts
 - Conspicuous Flowers (big/prominent/easily visible) visited by insects



Black Nightshade

Solanum nigrum (makoi) plant: (a) Flowering twig (b) Flower
(c) L.S. of flower (d) Stamens (e) Carpel (f) Floral diagram

Considerable Economic Importance

Ornamentals (Petunias)



Sources of Medicinal Compounds (Tobacco, Mandrake, Belladonna, Jimsonweed)

Rich in potent psychoactive alkaloids, it is a family of plants with desirable and toxic compounds referred to as the tropane alkaloids. They include nicotine, solanine, capsaicin, atropine, scopolamine, and hyoscyamine, chemicals that have been used as healing drugs in small doses, misunderstood or abused as addictive drugs, and employed as pesticides and warfare agents (e.g., sarin) when utilized in toxic doses.

Food (Potato, Tomato, Eggplant/Aubergine, Peppers)



Idaho is known for its potatoes for good reason — it produces the most of any state in the U.S., according to the Agriculture Marketing Resource Center. The Idaho State Department of Agriculture reports that the state cultivates one-third of the potatoes grown in the United States on more than 300,000 acres.

New Jersey -Top eggplant grower

Harvesting 849 acres each year, New Jersey stands ahead of other leading producers like California, Florida, and Georgia (via the New Jersey Department of Agriculture).



Common names: Winter cherry, Indian Ginseng

Scientific name: *Withania somnifera*

Family: *Solanaceae*

Parts Used: root mainly; leaf and berries can also be used

Plant Energetics: sweet, astringent, bitter, moist, warming

Plant Properties: adaptogen, anti-inflammatory, antioxidant, anxiolytic, aphrodisiac, immunomodulator, cardio-protective

Plant Uses: fatigue, emaciation, reproductive health, hypothyroid, insomnia, longevity, low libido, degenerative disease, anxiety, asthma, arthritis, fibromyalgia, insulin resistance

Plant Preparations: ashwagandha powder, tincture, decoction, poultice

Learn more at www.HerbalRemediesAdvice.org

Ashwagandha



Solanum xanti

Chaparral nightshade, Purple Nightshade, San Diego Nightshade

It is native to the Western United States in Arizona, California, Nevada, and Oregon, and to northwest Mexico in Baja California.



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Chaparral is California's most distinctive wildland. Characterized by drought-tolerant, woody shrubs, and shaped by a Mediterranean-type climate (hot, dry summers & mild, wet winters), chaparral covers most of California's coastal foothills and interior mountain slopes.

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Beginning Vegetable Gardening

<https://www.mastergardenersd.org/beginning-vegetable-gardening/>

Growing Tomatoes in the Home Garden

<https://anrcatalog.ucanr.edu/pdf/8159.pdf>

Crop rotation in larger gardens is particularly important for plants in the Solanaceae (nightshade) family, although nearly all of them, including herbs, benefit from rotation. The most common garden vegetables/fruits in this family are tomatoes, eggplants, potatoes, bell peppers, hot (chili) peppers, and tomatillos. In smaller gardens, the idea is to avoid planting a nightshade plant in the same spot every year.

Examples of diseases (**fungi**) which can accumulate in soils of the nightshade family are

- *Verticillium* wilt (V)
- Late blight
- *Fusarium* wilt (F) only impacts tomatoes. Disease-resistant varieties of these vegetables/fruits! (especially tomatoes) have been developed, so look on plant start and seed-packet labels for coding by V, F, or VF.

These fungi can overwinter in the plants and in the soil.

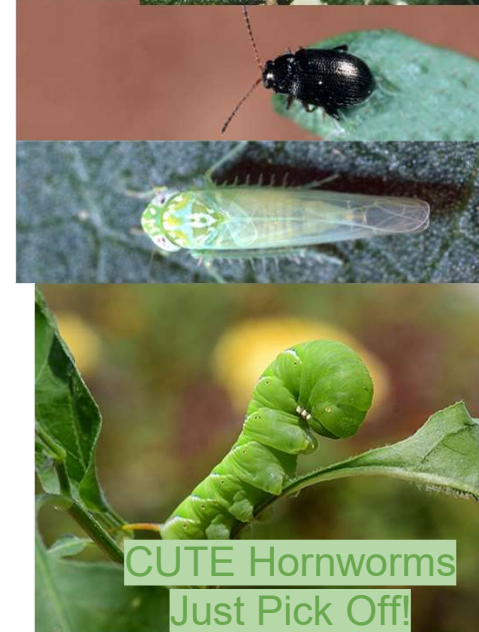
Many plant fungi spend the winter in a dormant state, usually on old plant material or in the soil. Many fungi create special survival structures that are darkly pigmented and thick-walled to survive extended cold and dry periods.

<https://ipm.ucanr.edu/>



Common Pests:

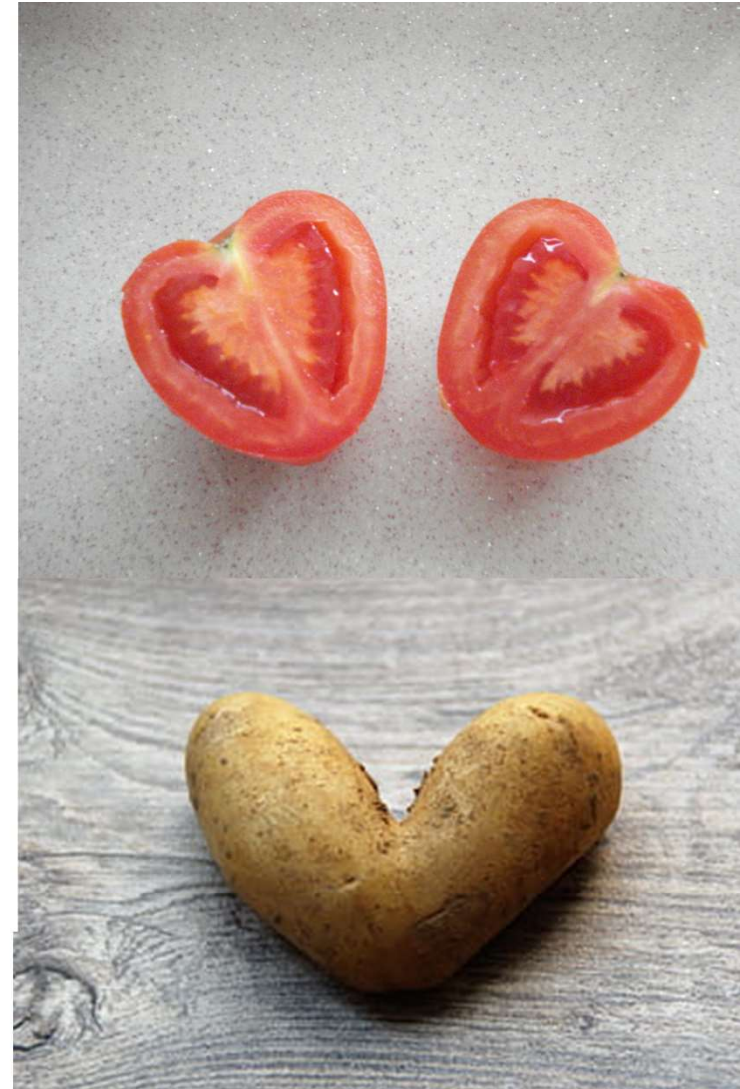
Flea Beetle
Leaf hopper
Aphid
Cut worm
Leaf Beetle
Spider Mite





Harvest Tomatoes and Potatoes From One Plant

- Incredible innovation in vegetable growing
- A tomato plant grafted onto a potato plant
- All natural, non-GMO
- Tomatoes for snacking, salads, sauces, and ketchup
- Potatoes can be baked, boiled, mashed, roasted, and cut for chips and fries
- Grow in a patio container or vegetable garden



What plant does a chicken grow?

An eggplant!

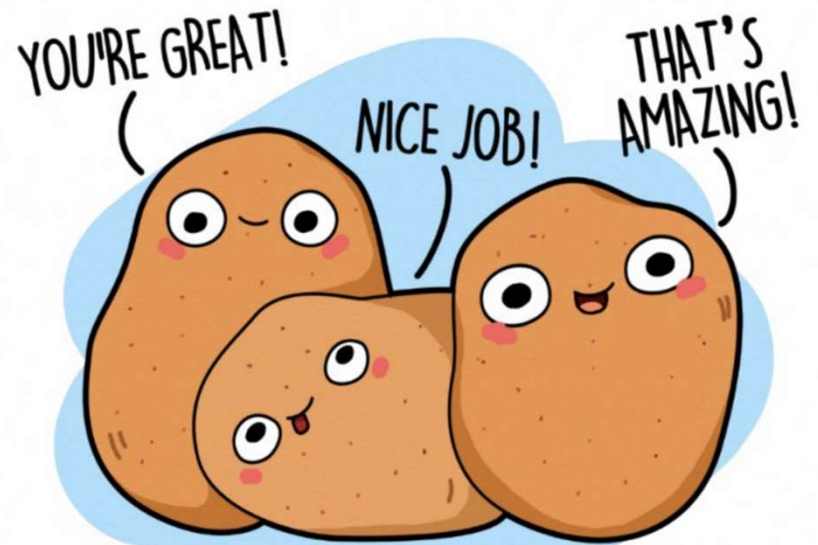


World's Heaviest Aubergine: This vegetable weighs 6 lb 14 oz and was grown by Peter Glazebrook, from Nottinghamshire. He's one of the most accomplished growers of giant vegetables ever - breaking 17 records in total over the years!

Early versions of eggplant were smaller and yellow or white. They looked like goose or chicken eggs, which led to the name "eggplant."



Who is the most
powerful potato?
DARTH TATER



**LESS HATERS
MORE TATERS!**