

Potato

CC-7
UNIT-4

DR, ARINDAM MANDAL

Assistant Professor

Bejoy Narayan Mahavidyalaya

Itachuna, Hooghly

West Bengal

MORPHOLOGY

Grown for its edible tubers, the potato (*Solanum tuberosum*) is a herbaceous perennial plant of the **Solanaceae** family.

The stem of the potato plant is branching, and its **leaves** are placed alternately, with leaflets that differ in size and shape.

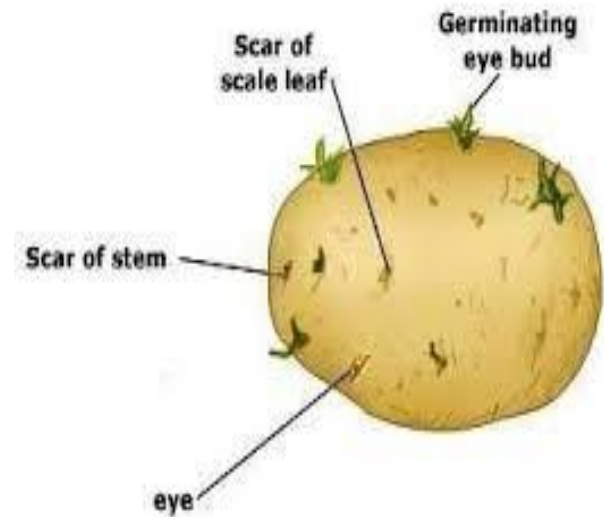
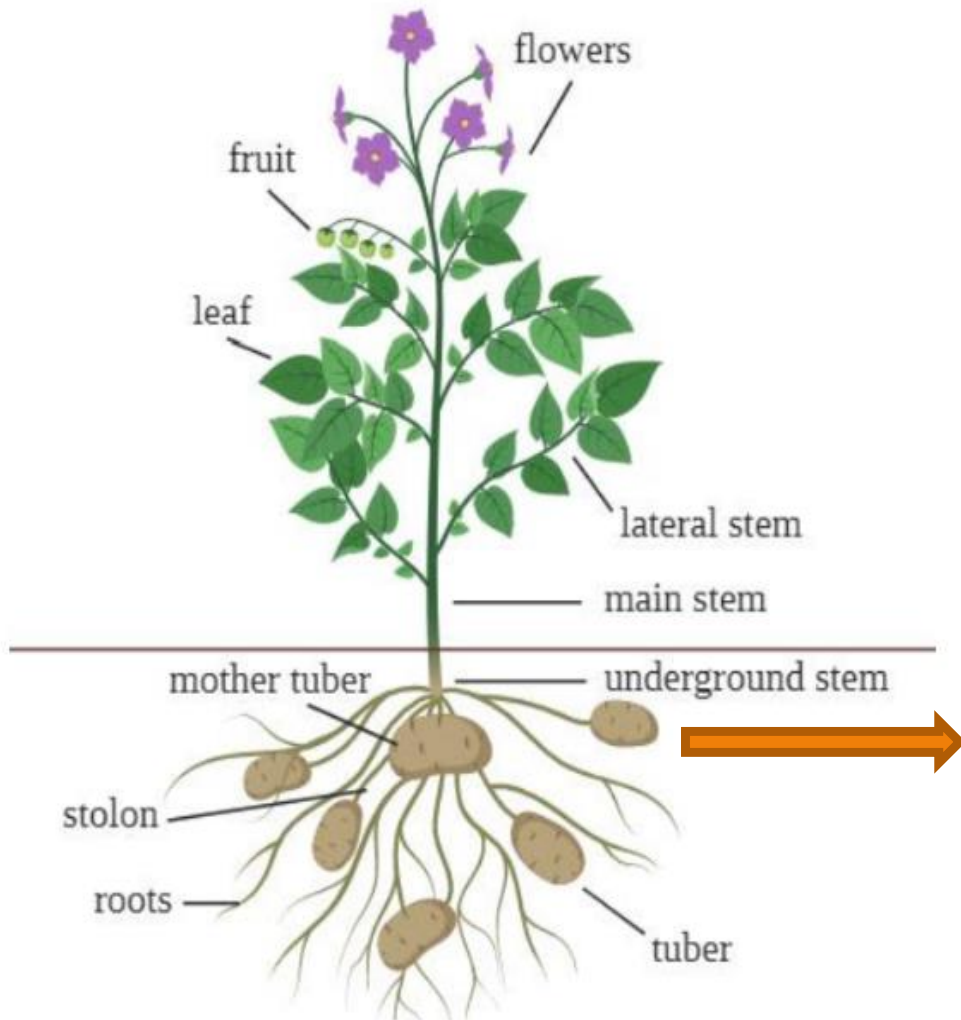
The leaves can grow to a length of **10-30 cm (4-12 in)** and a width of **5-15 cm (2-6 in)**, with the leaflets having an oval to oblong form.

The potato plant yields **yellow-green** fruit and white or **blue** flowers.

MORPHOLOGY

- Potato tubers are underground plants that develop in the top 25 cm (10 in) of the soil.
- Depending on the type, the colour of the tubers can vary from yellow to red or purple.
- Potato plants are grown as annuals, meaning they only survive one growing season, and they can grow to heights of more than one metre (3.3 feet).
- Potatoes are native to South America and are sometimes known as spuds, Irish potatoes, white potatoes, or Spanish potatoes.
- The potato plant yields yellow-green fruit and white or blue flower.

POTATO PLANT AND TUBER



PROPAGATION

Requirements

- As a cool-season crop, potatoes thrive in colder locations and are best grown as a winter crop in regions with warm summers.
- Although they are heat-sensitive, they can withstand a mild frost.
- In order to grow to their full potential, potatoes need a soil that is loose, well-draining, deep, fertile, and pH between 5.8 and 6.5. During the day, they should be planted between 18 and 27°C (65 and 80°F), and at night, between 12 and 18°C (55 and 65°F).
- Large containers or hessian bags can also be used to effectively cultivate plants outdoors.

SEED PIECES

- Typically, seed potatoes are used to cultivate potatoes. You can utilise "seed pieces" or miniature seed potatoes, which are small portions of a giant tuber.
- Planting material ought to have two eyeballs at the very least. Before planting in the ground, the eyes—from which a branch will sprout—should be given a few days to heal after being sliced.
- Curing aids in preventing disease invasion and seed fragments from decaying.
- To cure, spread the seed pieces out on paper towels and let them air dry for three to four days.

PLANTING

- **As soon as the soil becomes workable in the early spring, or 0–2 weeks after the last frost, seed potatoes and pieces can be planted.**
- **Till the soil with compost or well-rotted manure before planting.**
- **Growing potatoes in hilled rows is a typical practice. This entails adding the compost or manure and then excavating shallow trenches spaced 60–90 cm (2–3 ft) apart.**
- **Put 7.5 cm (3 in) of dirt over the seed pieces after spacing them 30 cm (12 in) apart.**

PLANTING

- After the plants grow to a height of about 25 cm (10 in), mound soil over the stems until it covers about half of the plants' height.
- This keeps shallow tubers from becoming green when they come into contact with sunshine.
- After the plants have grown for a further 25 cm (10 in), mound the soil once more. For the length of the crop's growth, keep doing this.
- It is not necessary to dig for tubers when using straw around the plants instead of soil, but since straw degrades with time, it must be added fresh straw on a regular basis.

Overall care

- **Due of its sensitivity to soil moisture, potatoes thrive in consistently moist soil.**
- **Generally speaking, plants need one inch of water per week from irrigation or rainfall.**
- **Avoid soil that is saturated with water since it might lead to rot and poorly formed tubers.**
- **Furthermore, as potatoes are heavy feeders, tuber yields can be increased by using a balanced fertiliser every two weeks.**

HARVESTING

- Generally speaking, potato tubers mature two to three weeks after the plants bloom, though this can vary depending on the variety being cultivated.
- When the vines have perished or before a frost that would kill the plants, all tubers should be picked.
- When the soil is sufficiently loose, you can harvest the tubers by carefully lifting them up with a fork or your hands.
- Dry soil makes harvesting simpler.
- Before storing the tubers, don't wash them.

USES

- ❖ In temperate climates, potato tubers are a staple food that is consumed after cooking.
- ❖ They could be sliced or cut into fries or potato chips.
- ❖ Potatoes can also be processed to make flour, starch, or alcohol.

Uses

- Potato tubers are a staple food source in temperate regions and are eaten after cooking.
- They may be cut or sliced and made into potato chips or fries.
- Potatoes can also be processed into starch, alcohol or flour.

Thank You

