

Know 10 Root Vegetables



About Community in Bloom

Community in Bloom (CIB) is a programme that was launched by the National Parks Board (NParks) in 2005. It aims to nurture a gardening culture among Singaporeans by encouraging and facilitating community gardening efforts. It is also an opportunity to build community bonds and strengthen social resilience in our City in Nature.



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For more information, visit our website at www.nparks.gov.sg/cib or email us at CommunityInBloom@nparks.gov.sg

For more information on plants in Singapore, visit NParks Flora & Fauna Web at www.nparks.gov.sg/florafaunaweb

For more gardening resources and tips, visit go.gov.sg/gardening-resources

To learn more about our City in Nature, scan the QR code or visit www.nparks.gov.sg/about-us/city-in-nature



This brochure features 10 'root vegetables' that you can grow in Singapore. These are plants that produce underground storage organs such as swollen tap roots, corms, rhizomes and tubers. We hope this brochure will encourage you to try growing these plants in your community garden!



How to Propagate New Plants

Depending on the species, 'root vegetables' can either be grown from seed or propagated vegetatively from plant parts such as corms, rhizomes, tubers and stems.

Plants grown through vegetative propagation take a shorter time to mature.

They also retain all the characteristic of the parent (original) plant.

Here are some common methods for growing new plants:

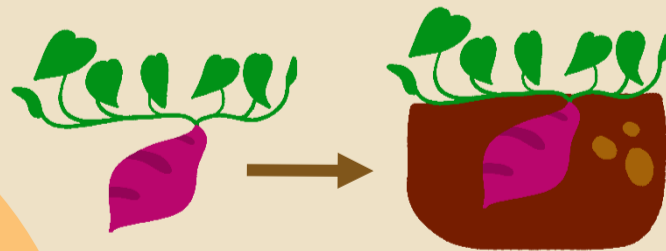
Seeds

Obtain seeds from the fruit of a healthy, mature plant. If unavailable, seeds can be bought from nurseries or shops. Plant the seeds directly into the ground, or grow them in seed trays before transplanting into other suitable locations.



Corms, Rhizomes and Tubers

Obtain these from the local market. As some of the storage organs may not have buds, set them aside in a cool, shaded place first for new buds to be produced before planting. Once there are new buds, bury the corm, rhizome or tuber in the soil, exposing only the growing bud(s).



Plants that can be grown this way include Elephant Yam, Fingerroot and Taro. Corms of the Water Chestnut can be left in water to produce roots before planting.

Stem Cuttings

Cut a mature but green section of a stem and remove some of the leaves. Place the cutting in soil that drains well.



Plants that can be grown from stem cuttings include Sweet Potato and Tapioca.

Arrowroot

Scientific Name
Maranta arundinacea



Plant Characteristics
Arrowroot grows in clusters and can reach a height of 0.5 m. It produces tuberous roots. It takes about 240 to 365 days for the tuberous roots to be ready for harvest.

Cultivation and Plant Care
Arrowroot grows well in fertile, loamy soil that drains well. This plant thrives in both full sun and semi-shade and requires moderate watering. It can be propagated by division of plant clusters or rooting small pieces of the tuberous root.

Culinary Uses
The tuberous roots are made into flour and commonly used in biscuits, cakes, jellies and puddings.

Bangkuang

Scientific Name
Pachyrhizus erosus



Plant Characteristics
Bangkuang, also known as the Yam Bean, grows as a twining vine. From seed, the plant requires at least 150 days to produce sizeable tubers that are 5 to 16 cm in diameter. Note that apart from the edible tuber, all other parts of the plant are toxic.

Cultivation and Plant Care
Bangkuang should be planted in moist soil that drains well. This plant thrives in full sun and requires moderate watering. It can be propagated by seeds and needs a structure to climb on.

Culinary Uses
The swollen tuber has a crisp, sweet taste and is eaten raw or cooked in stir-fries and soups. It is also used as a filling in *popiah* (a type of spring roll filled with shredded vegetables).

Elephant Yam

Scientific Name
Amorphophallus paeoniifolius



Plant Characteristics
Elephant Yam produces a corm and a single leaf that can reach a height of about 1.5 m. If grown from a corm, it takes about 365 days for the corms to be ready for harvest.

Cultivation and Plant Care
Elephant Yam thrives well in a moist, well-draining site. Avoid growing in waterlogged, clayey soil which may result in rot. This plant thrives in semi-shade and requires moderate watering. It can be propagated by planting small corms purchased from the market.

Culinary Uses
All plant parts are toxic and need to be thoroughly cooked before consumption. The corm is washed, peeled and cooked in curries and stews. The leaves and leaf stalks can also be cooked and eaten as a vegetable.

Fingerroot

Scientific Name
Boesenbergia rotunda



Plant Characteristics
Fingerroot is a species of ginger, and spreads via the growth of its rhizome. Its leafy shoots can reach a height of 0.5 m. It takes about 120 to 155 days for the rhizome to be ready for harvest.

Cultivation and Plant Care
Fingerroot grows well in moist, well-draining soil. This plant thrives in semi-shade and requires moderate watering. It can be propagated by planting rhizomes purchased from the market.

Culinary Uses
The young rhizomes and shoots are cooked as vegetables or eaten raw. The rhizomes are also used as an aromatic spicy flavouring for food and pickles.

Peanut

Scientific Name
Arachis hypogaea



Plant Characteristics
The Peanut plant can grow up to a height of 0.5 m. It produces underground fruits in the form of pods containing one to six seeds. It takes about 110 to 130 days for the fruits to be ready for harvest.

Cultivation and Plant Care
The Peanut plant grows well in fertile, well-draining soil and thrives under full sun. It requires moderate watering and is propagated by seeds.

Culinary Uses
The seeds can be eaten raw or cooked, and are used in confections, sauces and snacks.

Radish

Scientific Name
Raphanus sativus



Plant Characteristics
Radish produces a clump of leaves above the ground and a swollen tap root underground. The plant can be raised from seed and it takes about 30 to 50 days for the root to be ready for harvest.

Cultivation and Plant Care
Radish grows best in loose, friable and well-draining soil for optimal tap root development. This plant thrives in full sun and requires moderate watering.

Culinary Uses
The swollen tap root is peeled and cut into small pieces which are cooked in soups and meat dishes. The leafy tops can also be stir-fried and eaten as a leafy vegetable.

Sweet Potato

Scientific Name
Ipomoea batatas



Plant Characteristics
Sweet Potato has a sprawling or climbing growth habit. It produces underground tubers and long stems. It takes about 120 days for the tubers to be ready for harvest when propagated by stem cuttings.

Cultivation and Plant Care
Sweet Potato is best grown in well-draining soil. It thrives in full sun and requires moderate watering. It can be propagated by stem cuttings or sprouts that grow from the tubers.

Culinary Uses
The tubers may be boiled, baked or fried, or made into flour for making biscuits, bread and pastries. The young shoots can be stir-fried and eaten as a leafy vegetable.

Tapioca

Scientific Name
Manihot esculenta



Plant Characteristics
Tapioca is a shrub that can grow up to a height of 3 m. It takes about 270 to 365 days for the tubers to be ready for harvest.

Cultivation and Plant Care
Tapioca prefers to grow in well-draining soil. It thrives in full sun and requires moderate watering. It can be propagated by woody stem cuttings.

Culinary Uses
The tubers are a rich source of carbohydrates and the young leaves are eaten as a leafy vegetable.

Taro

Scientific Name
Colocasia esculenta



Plant Characteristics
Taro can grow up to a height of 1.5 m. It takes about 120 to 305 days for the corms to be ready for harvest.

Cultivation and Plant Care
Taro grows best in friable, fertile soil that is kept moist at all times. It thrives in full sun or semi-shade and requires lots of watering. It can be propagated by the division of plant clusters or planting corms.

Culinary Uses
The leaves and tubers can be eaten after being cooked.

Water Chestnut

Scientific Name
Eleocharis dulcis



Plant Characteristics
Water Chestnut grows in clusters and can reach a height of 0.3 m. It produces hollow leaves and corms. It takes about 210 to 275 days for the corms to be ready for harvest.

Cultivation and Plant Care
Water Chestnut should be grown in soil that is kept flooded (with 10 to 30 cm of water above the soil line), such as in waterlogged sites or inside a pot that will hold sufficient water. Ensure you put fish or BTI pellets in standing pools of water to prevent mosquito breeding. This plant thrives in full sun. It can be propagated by division of plant clusters or planting corms.

Culinary Uses
The corms are eaten raw or cooked. They are used as stuffing, or in soups and salads.