



School Gardens

Growing Potato & Kumara

Growing Potatoes

*Potatoes (*Solanum tuberosum*) belong to the family Solanaceae same family of tomatoes, capsicums and nightshade weeds*

- **Soils:** Potatoes like fertile well drained soil. You can grow potatoes direct in the ground or containers or even in car tyres
- **Position:** Choose a sunny spot. Apply as much compost as you can, but no lime, potatoes prefer acidic soil.
- **Nutrients:** Before you plant your crop add potato fertilizer as per bag instructions (approximately 1 cup per square meter) and work it into the soil.
- **Seeds:** Potatoes are normally grown by tubers also called 'seed potatoes'. Prepare seed potatoes by placing them on a tray in a well-lit, dry ventilated place (a conservatory or window sill will work) in order to allow them to produce a thick green sprout; this process is called 'chitting' and allows the seed potato to start growing in the ground faster.
- **Varieties:** There different varieties of potatoes depending on the flesh texture, days from planting to maturity (early, main crop etc.), ability to grow in containers etc. See brochures on garden centers.
- **Planting:** Make furrows 10 cm deep and place the sprouted potatoes 1 foot apart (about 30 cm) with the sprouts facing up. Cover with soil and water if needed.
- **Care:** When the plants are about 20 cm high, mound soil around them with a hoe, leaving about 10 cm of the tops exposed. This will control weeds, protect the young new tubers from the tuber moth and prevent sunlight from turning your new potatoes green.

At this stage you can apply another dose of potato fertilizer if the soil is not very fertile.

Irrigation is important from flowering time onwards. This is the time when the tubers will start swelling.

- **Harvest:** In a home garden situation, you can harvest and eat your potatoes earlier (if you want to). Just very carefully tease the soil from the side of the plant until you have the amount of tubers you need for the day and cook them immediately. The surplus will sit in the soil until you need them again.

Early varieties are ready to harvest about 3 months after planting or when the flowers are fully opened.

Main crop varieties are ready when the foliage dies off or when if you rub the skin, it doesn't come off. If you want to store potatoes for winter you have to plant main crop potatoes and wait until they are fully mature. To harvest, pull the tops off and very carefully dig around the plant with a fork, clean the soil from your tubers.

- **Storage:** dry them well and place them in sacks or shallow boxes, in a cool, dark, well ventilated position. Remember any light will turn them green.



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Growing Kumara

Kumara (Sweet potato, camote, Ipomoea batatas) belong to the family Convolvulaceae and are native to Central America.

- **Climate:** Plants will not tolerate frosts. They need high temperatures (average 24 degrees Celsius) for a long growing season (November to April) and plenty of water.
- **Soils:** They would prefer sandy soils or loam soils because they need a free draining soil. Do not prepare the soil too deep; to grow abundant roots, kumara prefer a firm soil below the root zone.
- **Nutrients:** Potato fertilizer would be appropriate for kumara, otherwise apply wood ash (potassium) and blood and bone (nitrogen and phosphate)
- **Plants:** Kumara plants are normally produced from sprouting a couple of kumara in a sand bed or sand box in warm area (greenhouse) during early spring (it takes around 6 weeks)

When shoots are about 6 to 10 cm, cut them from the tuberous root and plant them in the garden.

- **Planting:** Add the fertilizers to the soil before planting. Mound the soil and plant rooted shoots 10 cm deep, 40 cm apart and 1 to 1.5 meter between rows.
- **Care:** Watering the crop is very important. Control weeds around the plants and lift the plants every week or turn them towards one side one week, and next side the following week to prevent the foliage from rooting. If the plant roots all along the stem, it will grow plenty of foliage but few root tubers.
- **Harvest:** Harvest the kumara roots in autumn when leaves start turning yellow and before the first frost. Cure the tuberous roots in a high humidity and warm environment (temp: 30 degrees Celsius, moisture 80%) for 5 to 7 days.
- **Storage:** Keep the kumara in a dark, humid and warm place (12 to 20 degrees Celsius), like the Maaori storehouse in the Te Parapara garden at Hamilton Gardens

For more information see the Energize School Garden Calendar and the School Garden Summer Holidays Guide. Also talk to your Energizer about ideas for healthy eating education, cooking and activities.

This resource was developed by Sport Waikato and the Wintec Horticulture Dept 2014

