

GROWING THE BRASSICA FAMILY

Brassica are amongst the most well known and most eaten of vegetables. The big four are Cabbage, Cauliflower, Broccoli and Brussel sprouts. Other Brassica are Kohlrabi, Kale, and the root crops Swede, Turnip and Radish (root crops need different treatment to grow them)

What is so good about growing and eating Brassica apart from their taste and versatility in the kitchen? They are packed full of goodness for us, cabbage contains calcium, magnesium, potassium, phosphorous, beta carotene, folic acid, vitamins C, E, K and iodine.

Benefits Eaten raw, it detoxifies the stomach and the upper colon, improves digestion. Stimulates the immune system, kills bacteria and viruses (sulphur). Anti-cancer and anti-oxidant, a perfect food! All members of the Brassica family have similar profiles of vitamins, minerals, phytonutrients and antioxidants.

Steamed They maintain most of their nutrients, and the water from them is very nutritious. Used in stir fries they are great. As you can see the Brassica family are at the top of the tree in helping to keep us healthy. Organically grown and fully mineralised, the little green trees or footballs in our meal, are green vitamin pills in disguise.

Growing Brassica is usually fairly straightforward provided you understand their growing needs. These growing conditions and needs, apply to all the main types of brassicas. They all like cool growing conditions but they also need about 6 hours of daylight a day, they won't do well in the shade.

The soil pH is most important for success. 7 to 7.5pH is needed. 6.5 is just ok, but they like alkaline soils. Build up the alkalinity with dolomite preferably, because it works more quickly than lime, and it has a good proportion of magnesium in it (a necessary mineral). Garden lime will do the job too, but is much slower to change pH and has no magnesium. **Boron** is also an important trace element in the successful growing of Brassica. You can use Borax powder, (3 grams in 1 litre of water per square metre of soil) Multiply to suit your growing area.

Test for pH and add dolomite to your garden if needed. Dig in as soon as you know where you are planting your seedlings to give it a chance to work. Water well and leave for a week or so if possible. Test again before planting, adjust pH if need be. If your garden is over 7.5, use elemental Sulphur to lower it.

Brassica are hungry feeders, so use a lot of compost or manure, more than you would usually use for other plants. Add a double handful per square meter of Multigrow/Dynamic lifter. (pelletised chook manure) Some good fertiliser (Eco grow 'Prime Garden'). For mineralisation you need either rock dust or packaged minerals, spread them as recommended. Dig in and water well. Leave it for a week or so before you plant if you can and keep moist until planting.

Plant your seedlings into the bed, up to the bottom leaf and firm down well. This will give the plant more stability in the wind and it will also grow more roots up the stem. Plant 45cm – 50cm apart. Make a deep hole to ensure the tap root is kept straight and not bent. Fill the hole with water or Eco Vital, Seasol or similar to get the air pockets out, before in-filling.

Lightly mulch your seedlings even in winter. It keeps the weeds down and stops compaction of the soil by the rain. It also reduces water splash (soil) on the leaves, this is sometimes a source of disease. As the mulch breaks down it will feed the microbes and therefore your plants.

Keep up the recommended regimen of foliar and granular fertiliser, these plants are gross feeders

Cabbages

Choose early maturing ones like Sugarloaf, but plant the drum head types for late maturing. Plant red cabbage for pickling and finely cut for inclusion in salads, stir fries and fermentation etc. Or try the crinkled Savoy type. There is nothing like sweet young cabbage lightly sautéed with butter, served with cracked pepper. YUMMY.

At mid growth when the outer leaves are touching each other, mix some multigrow or dynamic lifter into the soil down the middle of the rows. (One good big handful per metre length.) This will keep them growing for the next couple of months. You will need to keep feeding them to the end of their growth and fruiting period. Harvest at any time as non-hearted greens, or use bottom leaves in stir-fries, or wait until the heart is fully developed and firm to the touch.

Broccoli

Feed the soil in the same way as described for Brassica in general. Broccolis are heavy feeders as well, they need rich well drained soil. When planting, space seedlings 30 – 60cms apart.

Pick when the florets are in a nice tight cluster, before yellow flowers form in the head. Cut the main head at an angle so that water runs off and does not stay on the stem and rot it. (If the stem is hollow, it shows that boron was needed) Broccoli will send out smaller side heads after the main head has been removed. The side heads provide a lot of eating, so fertilise again after the initial cut.

Continual harvesting stimulates production of those delicious heads, broccoli is one of the best performing plants in the garden and gives a bountiful crop. The leaves are also edible.

Cut off all flowers as they grow unless saving seed, (keep two plants for seed, they like to be cross pollinated) if left, they will slow down production of heads.

As per Cabbage, when they touch each other in the rows, or look like thinking about growing a head, give them a good handful of Multigrow or dynamic lifter down one metre length, of each row.

It is also a good idea to remove all the old bottom leaves as they start to yellow. This helps to keep the area free of mildew and the little critters that like to eat your plants.

To get rid of caterpillars that have climbed into the head, immerse the head in salty water or even hot water will do it. The caterpillars will let go and usually float to the top.

Cauliflowers

If your planting cauliflower seeds rather than seedlings, soak overnight in a concentrated Eco Vital solution ie. 50/50 to help stop whiptail. The Molybdenum in the solution does this.

Soil preparation for cauliflowers is as for Brassica in general etc. and the fertilising schedule is the same. When the head is open to the sun, cover with the outside leaves to protect it, (Use pegs etc. if need be) Pick before the florets open. Leaves are also edible.

Brussel Sprouts

Cultivation as for Brassica in general, but may need staking. A long growing season and plenty of space and cool weather is what they need, so plant early so that they are quite well grown before the cold of winter comes. Keep up the fertilising regimen as per the other brassica.

If you have not got them growing really well by June, you have missed the boat, Brussel sprouts need cold weather to form the sprout and to make it taste more delicious.

The sprouts grow in the leaf axils, pick when about 2.5cms in diameter. It is a good idea to snap off leaves growing under the sprouts to keep the energy in the plant. Not all people like them, but home grown and young is the best. Try cooking them in apricot nectar, or steamed with grated cheese over them. White sauce is great as well, give them a go.

The down side of Brussel Sprouts is that every aphid in the world seems to come to your garden to eat YOUR sprouts, so plant early.

Kohlrabi

Growing conditions and soil as for Brassica in general but delete the Multigrow down the rows. Sow the seed direct in the garden, as they may bolt as seedlings. Avoid root damage as much as possible.

They are quick growing so harvest at golf to tennis ball size, as they can get tough and fibrous when larger. The leaves are also edible.

Kale

Kale is a pick and come again leafy vegetable, whose growing conditions are as for the previous Brassica. The food value in Kale leaves can equal or exceed those of other Brassica. (Gram for gram it supplies twice the

antioxidants than that of broccoli) It is so good to add to soups, stir fries, salads (cut up finely) and green smoothies etc. Dry it, crunch it up, and make a nutritious sprinkle for your meals.

All Brassica like cool to cold weather and are ideal plants to keep you and your families health in top condition in the winter. Kale has good warm weather tolerance as well, so keep planting them during all but the hottest weather.

The problem with the Brassica family is that pests like them too. It's important to sprinkle Multiguard around your new seedlings when you plant them out. Or you may find them lying flat on the ground in the morning, and lot fat satisfied slaters will be hanging around!

White cabbage butterfly, cabbage moth, grey and black aphids. Slugs, snails and slaters all love Brassicas. The Cabbage butterfly and Cabbage moth caterpillars and aphids can all be controlled by Eco oil (vegetable oil) or Pest oil. Insecticidal soap or ordinary dissolved soap flakes sprayed on them will do the job as well

Some times a good hard jet of water from the hose will get rid of the aphids if you get to them early enough. The caterpillars can also be controlled by Pyrethrum or Dipel (or finger and thumb). Slugs, snails and slaters are controlled by using Multiguard pellets, these break down into fertiliser for your plants. Covering you plants with insect exclusion netting is the best way to go. It isn't hard to net a garden and the net will last for a long time if used carefully.

FERTILISERS: A good general, natural fertilizer (made by Eco Safe) is 'Prime Garden', this has good mineralisation as well as bacteria to feed the plant. Recommended frequency is once every 6 to 8 weeks.

Every fortnight foliar feed with compost tea, worm juice, or Eco Vital, Sea Change KFF or Fulvic acid as recommended. Any of these solutions will feed the plant, the soil bacteria, microfauna and flora and kick along your plants.

Foliar feeding will also help with nutrition for the plant when the roots are inundated with water during the winter.

If minerals are missing or locked up, foliar feeding will help sort this out as well.

Brassica are well worth the effort needed to grow them properly. With full mineralisation and no chemicals or poisons, they are just so much better tasting and better for you than store bought ones.

Enjoy your garden. Bon appetite!

Ralph Darlington

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Soil Additives at a Glance.

pH	6.5 – 7.5
Compost / Composted manure	
Rock Dust (trace minerals)	As recommended
Multigrow (composted chicken manure)	Double handful per/sq. metre (WA version of Dynamic Lifter. Avail. at Elders, Clayton Road, Midland)
Sulphate of Potash	1 handful per/sq. metre in the initial preparation of the bed
Soft Rock Phosphate	1 large cup per/sq. metre
Boron	3gm per litre / 1sq.m.
Molybdenum	1 tsp / 2 sq.m mix in watering can (mainly for cauliflowers) it's available to the plant in Eco Vital as you foliar feed.

Fertilise every 6 - 8 weeks, with Eco growth '*Prime Garden*'.

Foliar feed fortnightly at recommended dose. Eco growth '*Eco Vital*'

The Eco Growth fertilisers mentioned are an excellent range of products made by a West Australian Company. They are available from 'Elders' in Clayton Road, Midland.

If you have other brands, then use them as indicated in these notes. If you have any questions, then please get in contact with me.

Companion plants : Carrots, peas, beetroot and many other plants.

They don't like : Rue, strawberries, squash, pumpkins, tomato.