

## Growing *Brassicas* (broccoli, cauliflower, cabbage, Brussel sprouts and Chinese cabbage) in the Alice Springs Region

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### PLANTING SEASON

Brassicas prefer cool weather and are best grown as winter crops in the Alice Springs region.

**Broccoli** can be sown from January to May. If planting a quick-maturing variety, sowing can be extended through July.

**Cauliflower** can be sown from February through August. Be aware that hot weather can cause maturing heads to discolour and too much heat will keep the head from forming.

**Cabbage** can be sown from January through September. Avoid planting late-maturing cultivars late in the season, as cabbage does not tolerate heat very well.

**Brussel sprouts** are not ideally recommended for the Alice Springs region, but can be grown if it is remembered that they need cold weather to produce high quality sprouts. Sow from March to May so the crop matures during the coldest months.

**Chinese cabbage** should be grown from February to May. It is quick to bolt (send up a seed stalk) in hot weather.



Chinese cabbage

### CULTIVARS

#### Broccoli

- Summer king, which thrives in summer heat.

#### Cauliflower

- Hybrid mix has a beautiful curd (head).
- Brocco-flower is a cross between broccoli and cauliflower.

#### Cabbage

- Racer, Sugarloaf and Eureka. Earliball grows year round and produces small heads.

#### Brussel sprouts

- Drumtight.

#### Chinese cabbage

- Pak Choy and Wong Bok.

Check with local nurseries for current cultivars grown in the area.

## **SOIL PREPARATION**

Prepare the ground in advance of planting. The soil should be dug to a sufficient depth to fill compost or well-rotten manure and to work them in to help increase the organic matter. This will improve the soil structure, aid in the soil's water-holding capacity, add micronutrients to the soil and generally make the soil and crops healthier. Many nurseries sell products specifically for this purpose. Many seed packets will recommend adding lime to the soil before planting, but due to the region's soil alkalinity, this need not be done.

## **FERTILISER**

Depending on the current knowledge of the soil, assessed through proper testing, the plants can be provided with the required nutrients by using either a single nutrient fertiliser, a combined-nutrient fertiliser or a mixed fertiliser, starting from before planting to top dressing a few times in the production season. Complete granular NPK (nitrogen: phosphorus: potassium) fertiliser may be an easy option for an easy start. However, there is a whole range of different types of fertiliser in the market and the choice depends on the objectives of conventional, minimal, complete organic, or biological farming. Mix the fertiliser in with the soil before planting. It should be placed deeper than the seed or seedling so it does not burn the young roots. Two or three side-dressings of a fertiliser containing N, such as urea, should be applied during the growing season at roughly three-week intervals. This should be placed in a circle around the plant, or in a row alongside the plant, and watered in. Unless using a foliar fertiliser, avoid getting fertiliser on the leaves. Always follow the manufacturer's recommendations when applying fertilisers.

## **SEEDING AND PLANTING**

Brassicas can be seeded directly into a prepared ground or seedlings can be transplanted. Plant the seed at 0.5 to 1 cm deep. Seedlings will emerge in six to 10 days and should be transplanted or thinned when they are 5 to 10 cm tall. Harden off the seedlings before planting them out. This is done over about seven days by gradually exposing them to more sunlight while reducing their water. Plant them out in the late afternoon or on an overcast day. Water in well after planting.

## **WATERING**

The seedbed should be moist at seeding and transplanting time, and seedlings should be well watered before planting out. If seeding, keep the area moist until seedlings emerge. If transplanting, water the plants in after planting and keep well watered until they have established. Regular watering in the late afternoon is recommended. The plant is getting adequate water if the area around the root zone is moist. Drip irrigation is the most effective and economical means of watering.

## **MANAGEMENT**

Keep weeds to a minimum in the vegetable patch. Routinely check the plants for pests, diseases and deficiency symptoms. Put mulch around the plants to reduce evaporation, keep weeds from germinating and reduce soil temperature. Mulch with organic material, such as hay, leaf or grass clippings, and dig this into the soil at the end of the growing season.

## **INSECT CONTROL**

Healthy plants started off in healthy soil will have least insect/pest problems. However, aphids can be the worst problem with brassicas in the Alice Springs region. Foliar sprays with a specific systemic insecticide (either conventional or organic source) with the right dosage as instructed by the manufacturer could be the way to go for effective management of aphids. Take care to cover both sides of leaves. Leaf-eating insects can be a problem too.

For information on insect control, please refer to the Department of Primary Industry and Fisheries Entomology website at <http://pestinfo.nt.gov.au/>

## HARVEST

For broccoli, depending on the cultivar, harvest generally begins 50 to 85 days after transplanting. A central head, which can grow to 20 cm across, should be cut on a diagonal with about 10 cm of stalk attached, while the head is still tightly bunched. Side shoots will develop and these can be harvested, as required, before they start to flower.

Cauliflower develops a central head, with the size dependent on the cultivar. When the head starts to develop, bring the outer leaves up around the head and secure loosely with string or a clothes' peg. This will protect the curd from the sun and help retain the desired white colour. Harvest the heads when they reach 15 cm or more, and before the flower parts separate.

Cabbages mature 50 to 130 days after transplanting and grow a central head, with size and maturity dependent on the cultivar. Harvest when they reach the desired size.

Brussel sprouts take 80 to 100 days to mature after transplanting and they develop on a central stalk, with the lower sprouts maturing first. Harvest when the sprouts are 2 to 5 cm and continue harvesting up the stalk as they mature. Break or cut the sprout off and remove the leaf below the sprout. For fullest flavour, start harvesting after the first frost.

Chinese cabbage matures six to 10 weeks after sowing. Harvest the whole head by cutting the plant off at ground level.

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