



Onions

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When growing onions it is important not only to choose the correct variety for your climatic region, but also to plant them at the right time of year. While onions are not particularly prone to pests and diseases, seeds have a short viability, so germination can be poor.

Cool climates provide the best conditions for growing a wide range of onion varieties, but good success is possible in all, but tropical climates. Most onions are slow maturing, requiring at least six months of dedication on the part of the grower. After such a long wait, the taste of your first home grown onion harvest is sure to bring a tear to your eye.



Know Your Onions

Onions can be grouped according to various characteristics including:

- Colour - brown, white or red skinned
- Planting Season - Early, mid season or late
- Day Length - Short, intermediate or long day types
- Growth Habit – Bulbous, top set, multiplier or bunching

Bulbous brown, white and red skinned onions are all varieties of *Allium cepa*. They all have a swollen base and are the most common types of onions grown. Selected varieties can be grown from very cold regions through to the subtropics.

Tree onions or top set onions (*Allium cepa* var. *proliferum*) are best grown in cooler climates. They develop single or multiple basal bulbs as well as top set bulbils. You eat the base, pickle the aerial bulbils, saving some of the aerial offsets for replanting.

Potato onions, multiplier onions and true French shallots (*Allium cepa* var. *aggregatum*) produce clusters of small onions. They perform best in cooler climates and traditionally grown from offset onions saved from the previous season.

Spring onions (*Allium fistulosum*) are non-bulb forming onions that are also referred to as scallions, bunching onions or Welsh onions. They are easy to grow, mostly perennial, propagated by division and a good choice for warm climates.

Brings A Tear To Your Eyes

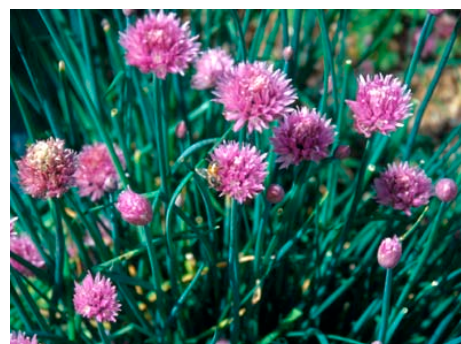
Sulfuric compounds released when onions are cut, irritate the eyes and cause eyes to water. These compounds are particularly concentrated in the root end of the onion. To reduce the effects the irritation when preparing onions, remove the top, peel the skin and cut the onion, leaving removal of the root end until the last stages of preparation. Long keeping winter onions are more likely to make you cry than sweet, mild summer onions. Chilling onions before preparing them can also reduce the teary effect.

Its All In The Timing

Gardening folklore dictates that onions are best planted on the shortest day of the year and harvested on the longest day. In reality, where the climate is suitable, three plantings of bulbous onions are possible between March and October. Early, short day varieties are planted during autumn. Mid season, intermediate varieties are planted in early winter. Late or long day onions are planted in late winter or early spring.

Day Length Explained

Onion varieties form bulbs as a result of natural exposure to seasonal amounts of daylight and darkness. Short day onions require 11 to 12 hours of daylight. They are a good choice for winter crops in subtropical areas because hours of daylight and darkness are almost equivalent.





Intermediate day onions needs 12 to 14 hours of daylight. They are a good option if you plant your onions in winter and harvest them in spring as day length begins to extend as spring approaches.

In colder regions where it is too cool to grow onion during winter it is best to choose long day onions. They require a minimum of 14 hours daylight to initial bulb formation. Late spring plantings will see crops grow well over the long hot days of summer.

Food of Pharaohs

Onions are thought to be one of the world's earliest cultivated crops. Evidence suggests dedicated cultivation of onions dating back more than 5000 years. Paintings of onions can be found on the walls of the Pyramids and it is likely that wild harvests of onions were eaten in prehistoric times.

Onion Varieties

Growing season, variety and storage influences the flavour and keeping qualities of onions. Onions grown and harvested in spring and summer are typically sweeter and milder than onions grown during autumn and winter, which have a more intense flavour.

Brown Spanish - late maturing, long day type, with good flavour and keeping qualities.

Creamgold - Mid season, intermediate to long day brown onion noted for its long keeping ability and its suitability for cooler regions.

Early Barletta - fast maturing, short day, white heirloom variety suitable for warm climates.

Evergreen Long White Bunching - Productive spring onion that produces multiple stems.

Gladalan Brown - Mild, early maturing, short day brown onion particularly popular in subtropical warm climates.

Gladalan White - Short to intermediate day white selection with limited keeping qualities.

Golden Shallots - A long keeping, mild flavoured multiplier onion with golden brown skin.

Lockyer Early White - a white skinned, short day variety particularly suited to warm climates.

Palma Yellow Globe - Brown skinned, long keeping, long day variety suitable for cool climates.

Red Odourless Globe - Mild flavoured, long day salad onion with red skin suited to cooler climates.

Red Brunswick - Flattened, red skinned late, long day salad variety with good keeping qualities.

Roderique Shallot - a true torpedo shaped shallot variety with shiny copper/purple tinged skin. Long keeping.

Straight leaf - Popular spring onion variety prized for its adaptability and vigour. Can be grown year round in most areas.

White Sweet Spanish - Medium sized white, mid to long day heirloom variety with good keeping qualities.

Pearl Pickler - Small white, short day onion popular for pickling.

Sweet Kiss

The Queensland Department of Primary Industries recently announced the development of a new hybrid onion variety designed to cause fewer tears and signal an end to onion breath. Sufficiently sweet and mild tasting to be eaten raw, the Sweet Kiss onion has reportedly been bred in response to demand for a less pungent onion variety, more suited to trends in modern cuisine.



Starting From Scratch

Obtain some fresh seed of a suitable variety. Sow 1-2cm deep into punnets or directly into prepared beds. Seeds germinate in 14-21 days. Plant out or thin individual plants at 5-10cm intervals with 25-30cm between rows.

To avoid planting too deeply, create a shallow furrow rather than using planting holes. Stand the seedlings upright using the side of the furrow to support them. Backfill and water well.

Easy Onions

The alternative to planting seeds or seedlings is to use onion sets. Onion sets are small bulbs. Planting sets is more expensive than sowing seed or planting seedlings, but offers some significant advantages including:

- Overcomes difficult weeding between tiny onion seedlings.
- Less vulnerable to pest and disease attack due to use of more established plants.
- Produces onions in a much shorter period, in some cases reducing the growing period by almost half.
- Ideal for small gardens where it is hard to justify the long growing period typically required by seed and seedling grown onions.
- Guarantees success for novice or impatient gardeners.
- Easier for children to plant and grow.
- Allows good production in areas where the growing season is very short.

Onions sets are typically around 2cm in diameter. Where long keeping varieties are grown and storage conditions are suitable, you can produce your own onion sets by saving some small, firm onions from the previous season's crop. Onion sets are also available from some nurseries and mail order seed and bulb companies.

How Many?

When deciding how many onions to plant try to estimate your weekly consumption for each season. Most families use several onions every week, so often a considerable quantity is required. You can fit quite a lot of onions in a small space. Where the climate is suitable set aside an area 1m x 2m for plantings of early, mid season and late varieties to ensure a year round supply.



Sunshine, Soil, Drainage and Patience

Onions require full sun, good soil, perfect drainage and plenty of patience on the part of the grower. Plant them into a moderately rich soil with a pH of around 6.5. Avoid adding fresh animal manure, blood and bone or other rich organically based fertiliser immediately prior to planting. Not only are seedlings and offsets sensitive to excess nitrogen, this can encourage top growth, rather than development of the stem and base of the plant.

Onions fed a high nitrogen diet will be soft and less likely to keep. Preparing the soil with a lucerne based green manure and using rock dust, adding potassium rich compost or adding a balance of organically based nitrogen and potassium fertiliser when preparing the soil will ensure success. Water regularly during the growing season as onions are sensitive to water stress.

Did You Know?

Onions contain powerful anti-oxidant compounds and exhibit antimicrobial characteristics. Consumption of onions may help to eliminate free radicals, reduce or prevent atherosclerosis, heart attack, cardiovascular disease, strokes and gastric ulcers. Studies have shown that onions have a beneficial effect against several types of cancer.

Weed Woes

Keeping an onion crop weed free over a growing season of six to eight months or more can be a tedious job and represents a significant cost factor in commercial organic production.



Mulching in an attempt to reduce weed growth can cause problems as any retention of moisture around the neck the bulb can cause it to rot.

Onions naturally tend to pull themselves out of the ground as they grow. This is entirely natural and attempting to replant them more deeply or hill them with compost will predispose bulbs to fungal disease.

Reap Your Harvest

While onions for immediate use can be harvested at any time, bulbous onions that are to be stored are best left until the tops dry off. This typically occurs between May and September, depending on the variety grown.

Where the climate is suitable, bulbs can be left to dry off naturally. This enhances their keeping qualities. In subtropical climates or where it is advantageous to force the bulbs to dry off more quickly, bend the foliage over at the neck of the bulb and cease watering to encourage the onions to cure. Bending the foliage also prevents onions going to seed.

Saving Seed

If you live in a cool climate conducive to onion growing, seed saving is relatively easy. Plants produce impressive, globular flower heads, attracting a variety of insects that facilitate pollination. You will need to isolate different varieties by planting at different times or installing physical barriers to prevent cross-pollination between varieties.



Collect the seed filled heads and allow to dry completely before shaking to dislodge the small, black seeds. Store in a cool, dry, dark environment for planting the following season.

Across the Tasman

Government funded researchers in New Zealand have applied to the Environmental Risk Management Authority (ERMA) for permission to undertake field trials of genetically modified (GM) onions in a secret location at Lincoln, Canterbury. United States fruit and vegetable seed company Seminis will collaborate in the research that will see onions carry genes that will make them resistant to the herbicide glyphosate (found in Roundup). The same technique has resulted in genetically modified, herbicide-resistant soybeans, corn and canola. Similar GM onion trials are already being conducted in the United States.

The application for a field trial of less than 15square metres attracted a record 1900 written submissions. While an ERMA report concluded that the trial posed 'negligible risk', opponents of the trial have raised concern about the effects of GM crops on soil bacteria. They argue the trial poses unacceptable environmental and health risks, threaten onion exports and are likely to result in increased herbicide use.

New Zealand's exports an estimated at 189,000 tonnes of conventionally grown onions and 400 tonnes of organic onions each year.