

Food Plant Solutions Brief Guide to Food Plant Gardens in District 1400



Our bodies need nutrients to be healthy and strong - nutritious food provides these:

Starch:

Starch provides sustained energy for the body.

Protein:

Protein helps the body repair cells and make new ones. Protein is also important for growth and development in children, teens, and pregnant women. Symptoms of protein deficiency include wasting and shrinkage of muscle tissue, and slow growth (in children).

Vitamin A:

Vitamin A is very important for eyesight and fighting disease, particularly in infants, young children and pregnant women. People who are short of Vitamin A have trouble seeing at night.

Vitamin C:

Vitamin C helps us avoid sickness, heal wounds, prevent infections and absorb iron from food. Severe vitamin C deficiency increases the risk of scurvy with symptoms such as inflammation of the gums, scaly skin, nosebleed and painful joints.

Iron:

Iron is important because it helps red blood cells carry oxygen from the lungs to the rest of the body. Low levels of iron cause anaemia, which makes us feel fatigued. Iron is also important to maintain healthy cells, skin, hair and nails. Iron is more available when Vitamin C is also present

Zinc:

Zinc is particularly important for the health of young children and teenagers, and to help recovery from illness. It is needed for the body's immune system to work properly. It plays a role in cell division, cell growth, wound healing, and the breakdown of carbohydrates. Zinc is also needed for the senses of smell and taste. Zinc deficiency is characterized by stunted growth, loss of appetite, and impaired immune function

| Food Group: | Common Name | Scientific Name | Cultivation: | Use: | Nutrients: |
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| Starchy Staples provide energy and dietary fibre. | Potato | <i>Solanum tuberosum</i> | Plants are grown from tubers. Large tubers can be cut to include a bud or "eye". The tuber is placed in a "trench" approximately 25 cm deep, then covered. As the foliage appears, soil is mounded around the foliage as it grows. The plant is surrounded by dirt when 20-25cm tall. The tubers need to be kept covered with dirt. | The tubers are cooked and eaten. The tubers are boiled, baked, roasted, mashed and used in soups, stews, dumplings, pancakes and potato salads. | Good source of energy with some iron and zinc. |
| | Sugar beet | <i>Beta vulgaris var. saccharifera</i> | Plants are grown from seed where they are to grow. Sow thinly and thin seedlings as they grow. | The tubers are cooked and eaten. The tuber can be roasted, boiled or steamed. | Energy and protein. |
| Legumes provide protein for growth. | Broad bean | <i>Vicia faba</i> | Grown from seed. Seeds are sown at 15 to 40cm spacing. If the seed pod formation is poor, it can be improved by pinching out the tops of the plants when in flower. Plants are self-pollinated but also cross pollinated by insects. | It is mostly the young beans that are eaten. The ripe beans and leaves are also edible. The dried beans can be boiled, ground into flour and added to soups. Sprouted seeds are cooked and eaten. | Energy, protein, ProvitA, iron. |
| | Alfalfa | <i>Medicago sativa</i> | Plants are grown from seed sown where they are to grow. Plants can be 10cm apart. Plants can be cut back to encourage new growth for the young leaves. | Seeds are often sprouted and the young sprouts eaten raw. Young leaves are eaten cooked. They are often lightly cooked and added to meat dishes and soups. | Sprouted seed - energy, protein, ProvitA, Vit C, iron, zinc. |
| Leafy greens are a source of iron. | Broccoli | <i>Brassica oleracea var. italica</i> | They are normally grown from seeds and transplanted. A spacing of 60cm x 60cm is suitable. | The central flower is cooked and eaten. It can be eaten raw. The leaves are edible. The sprouted seeds are eaten. | High ProvitA from the broccoli 'head'. Raw head is a source of iron. |
| | Cabbage | <i>Brassica oleracea var. capitata</i> | They are normally grown from seeds and transplanted. A spacing of 60cm x 60cm is suitable. | The leaves can be eaten raw or cooked. Stems can be eaten boiled or pickled. The seeds can be sprouted and eaten. | Energy, protein, ProvitA (raw), Vit C (raw), iron and zinc. |
| | Brussel sprouts | <i>Brassica oleracea var. gemmifera</i> | Plants are normally first grown from seed, then transplant to a spacing of 60 cm x 60 cm. | The sprouts are cooked and eaten. The leafy tops can also be eaten. | Cooked- energy and iron. Raw -protein, ProvitA, Vit C. |

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| Fruit are an important source of vitamins and dietary fibre. | Black currant | <i>Ribes nigrum</i> | Plants are easily grown from cuttings of 2 year old canes. The 3 year old canes are cut off at two buds above soil level. | Fruit can be eaten raw, in jam and for drinks. They can also be used in sauces and pies. The fresh leaves are eaten in soups. They are also used as a spice in sauerkraut. | Raw fruit - energy, ProvitA and Vit C. |
| | Highbush blueberry | <i>Vaccinium corymbosum</i> | Plants are grown from cuttings. Best to buy established bushes from a plant nursery. | The fruit are eaten as a dessert fruit and also in fruit salads, juices, syrups and other foods and drinks. They are used in jams, tarts and muffins. They can be frozen | Energy, Vit C. |
| | European red raspberry | <i>Rubus idaeus</i> | Rooted cuttings are used. Soft wood cuttings can be used. Fruit are usually produced on one year old canes. After harvesting the fruit bearing canes are cut at ground level and removed. | The fruit are eaten raw. They are also used in jams, drinks and for sweets. Young leaves can be cooked and eaten as a vegetable. | Raw fruit – Vit C and zinc. |
| Vegetables are an important source of vitamins and dietary fibre. | Cauliflower | <i>Brassica oleracea var. botrytis</i> | They are normally grown from seeds and transplanted. A spacing of 60cm x 60cm is suitable. | The thick white flower can be eaten raw or cooked. Can be made into cauliflower rice. The leaves are edible. The flower stalk and mid-veins of larger leaves are used in cauliflower soup. The seed sprouts are eaten. | Energy, protein, Vit C and some iron and zinc. |
| | Swede, Rutabaga, Swedish turnip, Yellow turnip, | <i>Brassica napus var. napobrassica</i> | They are grown from seed. | The tubers are cooked and eaten. They can be eaten raw. The leaves can be eaten cooked. | Raw - energy, Vit C. |
| | Carrot | <i>Daucus carota subsp. sativus</i> | They are grown from seeds sown directly. Because seed are very small, seed are mixed with sand before sowing to allow a more even distribution of plants. A spacing 5cm apart in rows 15-20cm apart is suitable. Often this spacing is achieved by thinning out plants. | The roots and the leaves are edible. The young leaves are used in soups. The roots can be eaten raw or cooked. They can be steamed, fried, pickled, made into jam, or used in stews. Carrot seed oil is used as a flavouring. The juice is used raw and fermented. The roots can be dried and the flour used to flavour and thicken soups. | Raw – ProvitA, energy, iron and Zinc. Cooked – ProvitA. |

Starting a garden

Plan:

- Identify a suitable location for the garden. Factors to consider include:
 - A site that receives 6-8 hours a day of sunlight and is not shaded by buildings or trees.
 - Easy access – a garden that is difficult to get to will not be maintained.
 - Protection from predators like native animals. If this is an issue, consider what can be used as a barrier and install it before planting.
 - Adequate and easily accessed water, whether it be a garden hose or a watering can.

Size:

- Gardens can be all different sizes. Plan the size of your garden – what space is available and how much time do you have? Start small and increase the size as you become more confident.
- If space is limited, remember plants can be successfully grown in containers or pots.

Tools and equipment:

- What do you need to turn over the soil, to plant seeds and seedlings (e.g. shovel, hand trowel, hoe) and how will soil be moved to cover seeds (e.g. rake). Can you borrow tools to reduce your start-up costs?

Build:

- Clear the area, removing any existing plants and large weeds (turn the soil – dig, lift and turn it over onto itself).
- Once the soil has been loosened, spread compost and work it into the soil. Avoid stepping on freshly turned soil, as this will compact the soil and undo your hard work. Once the digging is complete, smooth the surface with a rake and water thoroughly.
- Allow the bed to rest for several days before planting.
- Use a good quality potting medium if using pots and containers.

Plant:

- Seeds and seedlings can be purchased from nurseries, garden centres and most hardware stores. A packet of seeds will grow a lot of seedlings, but take longer to mature than seedlings directly transplanted.
- Plant seeds and seedlings in accordance with their specific directions and apply sufficient water to ensure the soil around the seeds and/or seedling roots is moist.
- Consider how tall and wide each plant will grow when planning the space between plants. Information on seed packets or seedling labels will indicate the appropriate distance between neighbouring plants.
- Add a thick layer of mulch around seedlings to help keep the soil moist.
- Make small signs to stick in the ground to show what you have planted.

Maintain:

- Plants need regular watering, which ideally should occur either early in the morning, or late in the day.
- Weeds will compete with the plants for nutrients and water, so it is important to keep them to a minimum. Hand weeding and adding mulch around seedlings will help keep weeds under control.

Acknowledgements:

This guide is based on information from the Food Plants International (FPI) database, “Edible Plants of the World”, developed by Tasmanian agricultural scientist Bruce French AO.

“Food Plant Solutions Brief Guide to Food Plant Gardens in District 1400, is a limited selection of food plants, which is intended as a **Draft Guide only**, to identify some local food plants that have high levels of nutrients that are important to human nutrition. This guide has been developed with the best intention to create interest and improve understanding of the important local food plants in District 1400. It is not a comprehensive guide of food plants for District 1400. Other important nutritious plants may be equally useful. Please contact Food Plant Solutions if you would like further information about these, or more detailed information about the ones selected.

Food Plant Solutions Rotary Action Group was initiated by the Rotary Club of Devonport North to assist in creating awareness of the edible plant database developed by Food Plants International, and its potential in addressing malnutrition and food security in any country of the world. In June 2007, Food Plant Solutions was established as a project of Rotary District 9830, the Rotary Club of Devonport North and Food Plants International. The primary objective of the project is to increase awareness and understanding of the vast food resource that exists in the form of local plants, which are well adapted to the prevailing conditions where they naturally occur, and how this resource may be used to address hunger, malnutrition and food security. For more information, visit the website www.foodplantsolutions.org or email info@foodplantsolutions.org

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Always be sure you have the correct plant, and undertake proper preparation methods.