

Food Plant Solutions Brief Guide to Food Plant Gardens in Eden, NSW

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.



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.

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?

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.

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.

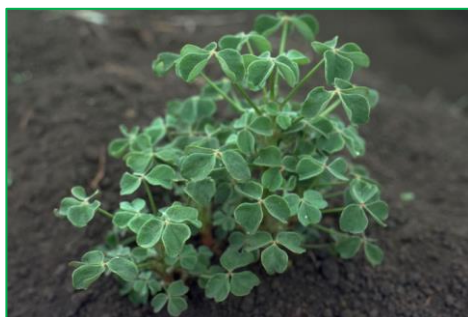
MAINTAIN:

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.

Starchy Staples provide energy and dietary fibre

Common Name	Scientific Name	Cultivation:	Use:	Nutrients:
Native leek, Golden lily	<i>Bulbine bulbosa</i>	It can be grown from seed. They can also be grown by division of the clump.	The corm is cooked and eaten.	Energy, Protein, Iron, Zinc
Yam daisy, Murnong	<i>Microseris lanceolata</i>	In the wild, this perennial species will tolerate a sandy soil and little water. But for best results in a home garden, use a rich and loamy soil, watering well during the Summer. It prefers full sun but will also grow reasonably well in dappled shade. Murnong is suitable for both garden beds and large pots with plenty of root space.	The tubers start forming in midsummer beneath clumps of yellow dandelion-like daisy flowers. When the flowers blossom in Autumn, the tuber roots are ready for harvest. Simply dig them up and enjoy Yam daisy produces gangly, milky, white tuberous roots that may be eaten raw or baked. They can be prepared warm with butter, included in salads, mixed with other vegetables, or turned into a paste for desserts. They taste sweet and slightly coconutty. The slightly bitter leaves are also edible and may be enjoyed in salads.	Energy

Oca	<i>Oxalis tuberosa</i>	Plants are grown from tubers or cut pieces of tubers which contain 1-3 eyes. Planting is normally done at the beginning of the rainy season or Spring as soil temperatures increase. Plants are weeded and soil mounded around them. A spacing of 20-40 cm x 20-36 cm is recommended.	The tubers are acid when fresh but are dried slightly then cooked and eaten. The bitter kinds are freeze dried and stored for later use. They can be used in soups and stews. The young leaves and shoots can be eaten. Caution: Fresh tubers contain oxalates, which affects calcium absorption.	Tuber (cooked): Energy
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Legumes provide protein for growth

Common Name	Scientific Name	Cultivation:	Use:	Nutrients:
Australian-pea, Dolichos-pea	<i>Dipogon lignosis</i>	Plants can be grown by seeds or cuttings.	The young seeds are eaten fried or cooked and salted. The green pods are eaten. The dried seeds are also cooked and eaten.	Energy, Protein, Iron

Soybean	<i>Glycine max</i>	It is grown from seed direct planted or in a nursery and then plants transplanted to the garden. Plants need to be about 20cm apart. <i>Plant in garden in spring once all frosts have finished.</i>	The young pods and ripe seeds are eaten. They are used for flour. The dried seeds are boiled, baked used in soups, stews, and casseroles. The seeds are used for oil. Toasted seeds are eaten like a snack. Soy flour is used for noodles, pasta, confectionary and other foods. The beans are fermented and used in a range of foods. Sometimes the young leaves are eaten.	Energy, Protein, Vit A, Iron
Pea	<i>Pisum sativum</i>	Plants are grown from seed. Seed can be collected for re-sowing. A spacing about 5cm apart in rows 25cm apart is suitable. Seed can be 3-5cm deep. If rotting is a problem, plants can be supported off the ground.	Mostly the young seeds are eaten. They can be eaten raw or cooked. Sometimes the young pods and leaves are eaten. The flowers are eaten in salads. The sprouted seeds are eaten. The young leaves and buds are cooked as a vegetable. The dry seeds are eaten. They are used in soups and stews and ground into flour.	Seed (raw): Protein, Vit A, Iron Seed (boiled): Vit A

Leafy greens are a source of iron

Common Name	Scientific Name	Cultivation:	Use:	Nutrients:
Silver beet	<i>Beta vulgaris subsp. cicla</i>	A spacing of 30cm between plants is suitable. Seed are sown 2.5cm deep.	The leaves and stalks are cooked and eaten. They can be eaten raw in salads. The leaf stalks can be cut from the leaf and cooked separately as an asparagus substitute.	Vit A, Vit C, Iron and Zinc
Indian spinach, Climbing spinach	<i>Basella alba</i>	It can be sown from seeds or cuttings. Seeds germinate in a few days. It requires a trellis or fence to climb over. If seeds are used, they are best sown in a nursery and transplanted. A spacing of 1 m is suitable. Plants grown from seed are more productive than from cuttings. When cuttings are used, 20-25 cm long cuttings are suitable. Partial shade, rich fertile soil, and adequate moisture favour abundant leaf production.	The young shoots and leaves are eaten cooked. They are somewhat slimy. In soups and stews the mucilage can be used as thickening. The purple colour of fruit is harmless and is used to colour vegetables and agar-agar. Some lemon juice added to the dye enhances the colour. The leaves can be eaten raw in salads or cooked like a vegetable. They are also dried and stored. When fresh they can be stored for 4-5 days.	Energy, Protein, ProvitA, VitC, Iron

Warrigal greens	<i>Tetragonia tetragonoides</i>	It is grown from seeds or cuttings. It is easy to save seed. Seed can be bought in stores. Seeds often grow better if soaked in water overnight. Seedlings are not easy to transplant so it is better to sow direct. Often 3-4 seeds are planted in a mound with the mounds 70 cm apart. Cuttings form roots quickly.	The fleshy leaves and tops are eaten. They can be eaten raw, steamed, boiled, stir-fried, creamed, served with mushrooms, or made into quiche. CAUTION: They can contain oxalates and nitrates which can be poisonous.	ProvitA, VitC, Iron
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Fruit are an important source of vitamins and dietary fibre

Common Name	Scientific Name	Cultivation:	Use:	Nutrients:
Appleberry	<i>Billardiera scandens</i>	Plants can be grown from seed or cuttings. The fresh seed with the pulp removed are sown shallowly. They take 8-10 weeks to germinate. Stored seed may take a year to germinate. Cuttings strike easily. Semi ripe cuttings 10-12 cm long with a heel are planted in warm soil.	The ripe fruit are eaten. They have a flavour like stewed apples. The unripe fruit need to be cooked. For eating fresh the fruit should be very ripe and soft. They can be cooked. It can be used in baked desserts, pies, tarts, muffins, and scones.	Energy, Protein, Iron, Zinc

Rosella	<i>Hibiscus sabdariffa</i>	Seeds are sown and the seedlings can be transplanted. They are transplanted when 15-20 cm high. Seed should be planted 1-2.5 cm deep. A spacing of 50 cm x 50 cm is suitable although a wider spacing is used for fruit and a closer one for leaves. Plants can be propagated by cuttings.	The swollen bases of the flowers are used for jams or drinks. The young leaves can be cooked and eaten. They can also be dried and used later. The flowers can be used to flavour drinks. The seeds can be eaten. They can be dried and ground. They can be pressed for oil. They are also fermented. The dried ground seeds are used for coffee.	Calyces: VitC Seeds: Energy, Protein, Iron Leaf: Protein, ProvitA, VitC, Zinc
Pink flowered native raspberry	<i>Rubus parvifolius</i>	Plants can be grown by cuttings. They can also be grown from seed.	The fruit are eaten raw. They are also made into jam and pies or brewed into wine.	Vit C



Vegetables are an important source of vitamins and dietary fibre

Common Name	Scientific Name	Cultivation:	Use:	Nutrients:
Kohl rabi	<i>Brassica oleracea var. gongylodes</i>	The seed can be sown direct or in a nursery and transplanted.	The bulb is cooked and eaten and can be added to soups or lightly simmered in coconut milk with spices. The young leaves are edible. It is best eaten when young before needing to be peeled and this preserves the flavour.	Protein, VitC, Iron
Marrow, Zucchini	<i>Cucurbita pepo</i>	They are grown from seeds. The seeds germinate after one week. They can be grown from cuttings. They are best planted on mounds. A spacing of 2-3 m between plants is needed. Hand pollination assists fruit setting. Plants can also be grown from cuttings as plants root at the nodes.	The young fruit are cooked and eaten. They can be steamed, boiled, or fried. They are used in pies, soups, stews, and cakes. The young leaves and the ripe seeds can also be eaten cooked. The seeds are dried, salted and toasted and eaten as a snack food. The sprouted seeds are used in salads. Flowers and flower buds can be eaten boiled. They can be dried for later use.	Fruit: ProvitA, Iron Leaf: ProvitA, VitC Seeds: Energy, Protein, Iron

Tomatillo	<i>Physalis ixocarpa</i>	Plants are grown from seed. Seed germinate in 7-10 days. Plants should be spaced 40 cm apart. Plants are best staked to prevent plants sprawling and fruit rotting. Plants can be grown from cuttings. Flowers are self-fertile.	The fruit are eaten fresh. They can be used for jam, sauces, pickles, or juice. They are used in soups, curries, and in cooked meat dishes. Unripe fruit are often used in a hot chili sauce.	Energy, ProvitA, VitC, Iron
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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 "Eden, NSW" 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 Eden, NSW. It is not a comprehensive guide of food plants for Eden, NSW. 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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- assume responsibility for sickness, death or other harmful effects resulting from eating or using any plant described in the database or this Field Guide

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

Compost - if it has lived once, it can
live again.



