



Why fertilise?

Plants need food just like people – they need a range of nutrients for good health and growth.

All plants need relatively large amounts of nutrients like nitrogen and potassium. Other nutrients such as phosphorus and magnesium are needed in smaller quantities and trace elements, like iron and copper, while essential, are only needed in tiny amounts.

Most plants have similar nutrient needs and all nutrients, whatever their source, must be dissolved in water before they can be absorbed by plants. So watering and fertilising are closely linked.

Any nutrients not taken up by plants may enter the stormwater and groundwater systems and eventually find their way into our waterways.

Homes and gardens are a major source of nutrients entering waterways, and contribute to algal blooms which can be toxic.



What is fertiliser?

Fertiliser is the collective name for a product that releases nutrients necessary for plant growth. They can be organic or inorganic (sometimes called mineral or chemical) in origin. Fertilisers may contain nutrients in differing quantities and rates of release can vary from instant to slow release over many months. They can be applied as liquids or solids.

Organic fertilisers are made from the remains of plants and animals. For example, seaweed, blood and bone, and manures. Many of these can also be used as soil improvers but should be used sparingly as they can contain a lot of phosphorus.

Inorganic fertilisers are formulated for specific purposes and can be applied as a:

- liquid – purchased as a concentrated solution or powder to be diluted and watered in; or
- granular (many lawn fertilisers) – spread directly over plant roots.

Before you fertilise

Good soil is the foundation of a good garden. The soil holds the key to healthy plant growth and efficient use of precious resources, such as nutrients and water.

The table below summarises the characteristics of the common soil types.

Soil type	Nutrient holding capacity	Non-wettable	Water holding capacity
Sand	Poor	Very common	Poor
Gravel	Medium	Occasionally	Medium
Loam	Medium	Rarely	Good
Clay	Medium	Very rarely	Good

Sandy soils do not hold nutrients, so when fertiliser is applied, most is lost. Proper soil amendments are essential to increase nutrient and water holding capacity.

Common soil amendments include:

- organic matter (compost and soil conditioners);
- minerals (Clay; Gypsum; Spongolite; Zeolite); and
- soil-wetting agents.

For more information see the Water Saving Ideas Soil Improvement brochure available at watercorporation.com.au.

When to fertilise

It is important to understand your plants' fertiliser needs and growth cycle to establish an effective fertiliser plan.

For example, vegetables and annuals need fertiliser more frequently during periods of growth. However, small plants only need small amounts applied to the root zone.

Most native plants need less fertiliser than exotics. A low-phosphorus fertiliser, applied in spring, will be sufficient.

Generally, it is better to apply a little fertiliser often during warmer months. Feeding plants in winter or when rain is expected is wasteful. Rain and over watering washes nutrients past the roots.

Slow or controlled release fertilisers are rated to last a certain length of time. Once applied, the release rate can be influenced by high temperatures and over watering.



You can Fertilise Wise

Dissolved fertiliser moves in the groundwater to a wetland or waterway, causing algal blooms that release toxins and starve fish and other aquatic animals of oxygen.



Courtesy of SERCUL

Fertilising your lawn and garden

How much to fertilise?

Different plants need different amounts of nutrients at different stages of their growth cycle. For example, fruit trees, vegetables and plants that are pruned hard each year need more fertiliser.

Fertiliser needs to be applied near the plant roots or it will be wasted. Often the canopy area can be used as a guide.

The canopy area for small plants, like seedlings, is very small and only a small amount of fertiliser is needed.

Lawns are commonly over fertilised. If the soil has been amended, only small amounts of fertiliser are required.

Most fertilisers have a recommended application rate on the packet. It is important to note that this is the maximum amount that should be applied.

Filling an everyday container, such as a cup, with your fertiliser and weighing it can be a useful guide.

- A teaspoon holds about 4g of fertiliser;
- A tablespoon holds about 16g;
- A match box holds about 25g;
- A cup holds about 250g.

Fertilise responsibly

We all need to fertilise responsibly to protect the health of waterways so they can be enjoyed today and for generations to come. You can help by:

- preventing fertiliser spreading on to paths, driveways and roads from where it can be washed down the drains and into waterways;
- not applying fertiliser prior to heavy rain to avoid nutrient runoff or leaching into groundwater;
- not overwatering to avoid washing nutrients away; and
- seeking further information or professional advice.

For more information

www.agric.wa.gov.au under 'Gardens and households'

South East Regional Centre for Urban Landcare – Fertilise Wise Campaign

www.fertilisewise.org.au

Visit www.greatgardens.info to attend a free Great Gardens workshop or www.beyondgardens.com.au to attend a free Beyond Gardens workshop and learn about river-friendly gardening

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