

Orchid FOCUS

One of the enduring myths about orchids is that they do not require feeding. It is true that orchids are unusual in many respects but they are still green plants and like all green plants they use the sun's energy to convert minerals into sugars and starches to produce shoots and leaves. Like all green plants they obtain their minerals mainly through their roots.

It is certainly true that orchids, especially the epiphytes, have evolved in conditions where mineral nutrients are in thin supply and they therefore, require smaller amounts than other plants. This makes it all the more important to supply the right nutrition at the right time and this is the only way to achieve optimum health and growth in the plant. Orchids are usually grown in inert media, such as bark, which have no nutrients to offer, this is why a feeding programme is essential. Orchids have very specialised requirements and will perform best with a nutritional programme designed specifically for them.

Professional orchid growers, and especially exhibition growers, have well-developed nutrient programmes for their plants – and it shows.

It is true that the orchid family is a huge one and that different genera have very different habits. However it seems that there are certain nutritional specifics that are common to most orchids and these are built into the **Orchid Focus** formulations. They are, for instance, entirely free from urea which has been shown to be toxic to certain orchids.



Which orchids need feeding?

The most commonly cultivated genera – *Cymbidium*, *Paphiopedilum*, *Cattleya*, *Phalaenopsis*, and *Dendrobium* – will all benefit from a proper programme of nutrition. They can be fed through the roots and by foliar application – misting the leaves.

Use **Orchid Focus Grow** throughout the growing season. Switch to **Orchid Focus Bloom** as soon as plants develop buds. Use Orchid Focus Bloom through the flowering period and switch back to Orchid Focus Grow as soon as flowers are finished. See *The Orchid Seasons* below.



Water

Water quality is crucial to success with orchids and it is a simple matter to get it right. Water in many parts of the country is very hard and mineralised – it is, effectively, a nutrient solution already, with all the wrong minerals of course predominating. As orchids need nutrients at low strength it is impossible to use this water as a base – it is already too richly concentrated with minerals. If water is clean and pure to start with it allows the grower to add the correct minerals in the correct proportions – by adding a properly formulated orchid nutrient solution.

For growers living in those parts of the country with hard water – the south east, including London, and Thames valley and East Anglia – it is crucially important to find a source of clean water for orchids. Rainwater is the cheapest and most readily available source of clean water. It is important to ensure that it has run off from a clean roof and is stored in a plastic container such as a water butt. Keep it covered at all times to exclude leaves and other organic rubbish. Clean water is a perfect start for orchid nutrition – just add Orchid Focus at the recommended dose and mix it well in.

The orchid seasons

This schedule is a general guideline only. Orchid species and growing conditions vary widely. Use this as a starting point and make adjustments as your increasing experience indicates.

| | | | | |
|---------------------|--|-------------------------------|--|-----------------|
| Early spring | As soon as there is any sign of new growth | Commence feeding at intervals | Orchid Focus Grow Half strength | Every 2–3 weeks |
| Spring | Strong new growth | Increase strength of nutrient | Orchid Focus Grow Full strength | Every 2 weeks |
| Summer | The growing season | Maintain nutrient strength | Orchid Focus Grow – or Bloom Full strength | Every 1–2 weeks |
| Early autumn | The plant is slowing down | Scale back the feeding | Orchid Focus Grow – or Bloom Full strength | Every 2–3 weeks |
| Autumn | | | Orchid Focus Grow – or Bloom Half strength | |
| Winter | Dormant plants will not need feeding | | | |

Nitrogen

Nitrogen is an element which is essential to growth in orchids, as in all plant species. Orchids, however, need less nitrogen than most plants and it has to be in the right form.

Nitrate is the ideal form of nitrogen for orchid cultivation – at the right levels it can deliver strong healthy growth over long periods. Orchid Focus solutions contain 100% of their nitrogen in the nitrate form.

Urea is used by some fertiliser manufacturers because it is cheap. It is highly unsuitable for cultivating any plants in inert media, such as bark, for example, because these media lack the soil micro-organisms needed to convert urea into a form useful to the plant. Without the necessary conversion urea can become toxic very quickly.

Orchid Focus solutions are carefully formulated to exclude urea. Only pure 100% nitrate is used in our orchid nutrients.

Root feeding

Orchids should be fed at intervals throughout the growing season. Frequency increases as the weather warms up – see schedule. Make up Orchid Focus Grow or Bloom at the recommended strength and simply water into the potting medium.

Foliar feeding

Foliar feeding has very noticeable and positive effects on orchids, it helps to produce darker green foliage which, in turn, allows more light to be assimilated by the plant, empowering vigorous growth. Foliar feeding should be carried out in conjunction with a normal feeding programme through the roots.

Use Orchid Focus at half strength. Mist gently over foliage in the morning. This allows the whole day for foliage to dry off before nightfall.

Foliar feeding can be carried out as often as once a week during periods of active growth. It should always be at half strength.

Watch carefully for signs of overfeeding – streaking or mottling of the leaves is a warning to reduce the regularity of foliar applications. These can also be an indication of burning caused by sunlight on recently wetted leaves.

A small number of orchids, specifically those with soft



foliage, such as *Thunias*, *Lycastes*, *Pleiones* and *Phaius*, should never be misted with nutrient as it will quickly damage their leaves.

Mounted Orchids

Mounted orchids need to be sprayed regularly – ideally more than once a day. If the mount is just wood or bark, with no moss or compost, then use Orchid Focus at half strength at every watering for say a week at a time. This can be followed by a soak – just for a few minutes – in a bucket of plain water with nothing added, so as to dissolve and flush away any excess nutrients.

If there is a pad of moss or other compost between the plant and the plaque (mount) which would trap water and hold the fertiliser, then it will be best to alternate sprays of nutrient and fresh water in successive daily applications.



How often and when?

Orchid Focus

As with most plants, orchids should be fed while they are actively growing and feeding should be suspended during periods of dormancy. Some tropical orchids that are grown indoors, under lights, may well require nutrients throughout the year, as they do not really have a dormant period.

For orchids raised under natural light, feeding should commence in the early spring. We would recommend Orchid Focus Grow at half strength to begin with. This schedule is somewhat generalised and the recommendations will apply to most species and hybrids. It is important to monitor all of the plants on a weekly basis. If the plant is healthy and foliage is dark green – continue the scheduled feeding. If it shows any signs of stress from over feeding then suspend the nutrient programme for a week or two – it will quickly recover.

Grow and Bloom Formulations

Orchid Focus is available in two separate formulations. Orchid Focus Grow has high levels of nitrogen, derived from nitrates, to encourage the growth of healthy shoots and leaves. The Bloom formulation has enhanced levels of phosphorus and potassium to support heavy flowering. Please note that the change over in nutrients will not induce flowering, no nutrient can do that. The flowering cycle is dictated by the season and by the plants internal programming. However the provision of the correct formulation at the onset of flowering will ensure that the plant has access to the minerals needed to maximise and prolong the flower display.

| Orchid Focus Grow and Bloom | | |
|--|-----------|-----------|
| Compound fluid fertiliser containing magnesium, sulphur and trace elements | | |
| 2.2 : 1.3 : 2.1 (Grow) | | |
| 1.9 : 2.5 : 2.6 (Bloom) | | |
| Analysis % w/v | Grow | Bloom |
| Nitrogen (N) | 2.2 | 1.9 |
| Nitrate nitrogen | 2.2 | 1.9 |
| Ammoniacal nitrogen | – | – |
| Phosphorus pentoxide (P ₂ O ₅) water soluble (P) | 1.3 (0.6) | 2.5 (1.1) |
| Potassium oxide (K ₂ O) (K) | 2.1 (1.8) | 2.6 (2.2) |
| Calcium oxide (CaO) (Ca) | 2.5 (1.8) | 2.0 (1.4) |
| Boron (B) | 0.01 | 0.01 |
| Cobalt (Co) | 0.0006 | 0.0006 |
| Copper (Cu) chelated by EDTA | 0.002 | 0.002 |
| Iron (Fe) chelated by DTPA | 0.04 | 0.04 |
| Manganese (Mn) chelated by EDTA | 0.013 | 0.013 |
| Molybdenum (Mo) | 0.001 | 0.001 |
| Zinc (Zn) chelated by EDTA | 0.002 | 0.002 |

Also contains: magnesium, sulphur, nickel, humic acid and fulvic acid.

Orchids under lights

Many growers are now discovering the joys of artificial lighting and increasing their orchid success. To some extent the use of lights can free the grower from the constraints of the seasons and allow the production of superb flowers all the year round. It is true of course that orchids originate from a wide range of habitats and have evolved with very different light requirements. Epiphytes from the dense rainforest will prefer much lower light levels than terrestrial orchids originating from more open habitat.

However, in this sense, an indoor growing area with lighting is just the same as an orchid house. In either case there will be areas of brighter light, close to the light source, and more shady areas. The grower will simply move the plants around until they find a suitable location. The plants will soon tell you that they have the wrong light levels and it is not difficult to readjust their environment to suit specific requirements.



Orchids growing under lights



Nebula II from Growth Technology

Modern horticultural lights – such as **Nebula II**, which uses special fluorescent tubes designed for plant growth, can really extend the growing season and enhance the enjoyment of these beautiful plants.

GreenFuse Bloom

GreenFuse Bloom is a blend of highly purified and concentrated organic plant extracts. It is used to intensify the colouration and vibrancy of flowers and is highly recommended. GreenFuse can be added to water or to nutrient solution and applied to orchids throughout the flowering season.

