

# Fertiliser... it's all in the numbers!

What many of us do is take a look at our garden... the lawn, a shrub or two, or those favourite roses and think to ourselves... 'What we need to do is apply some fertiliser'.

So we trot off to our local Mica and go along the shelves until we see the label we are looking for... and it contains the magic word... 'ROSES' or 'LAWN'.

We make the purchase, lug the bag home, and spread the content where we think the plants need some help.

Not that keen gardeners would ever do that, but then this article is aimed more at the casual gardener. So, read on...

Every bag of fertiliser has a series of numbers prominently displayed. They will be 3:1:5, or 10:10:10, or 6:5:1 and they represent the following three elements (and in this order):

- Nitrogen (chemical symbol N)
- Phosphate (P<sub>2</sub>O<sub>5</sub>) (chemical symbol P)
- Potassium (chemical symbol K)

So what does each one do?

In short...

Nitrogen:

- Is for growth of foliage
- Helps grow lush, tender, green leaves (or grass blades)
- Might be needed if there is a presence of yellow-green foliage and little or no growth
- Is an element that flushes through the soil easily so follow-up treatments might be necessary.

Phosphate (P<sub>2</sub>O<sub>5</sub>):

- Is for root growth
- Is for faster maturity of plants

- Is for the development of flowers, fruits, seeds
- Lasts long in soil, but if you see leaves starting to get a purplish discolouration or the plant displays slow or stunted growth, it might need some phosphate

Potassium:

- Is for greater vigour to tolerate changing weather conditions (important in these times of climate change)
- Is for helping plants combat disease better
- Is for helping the plant to make food
- Is for stronger stems and cell wall structures
- Is needed to prevent slow growth and weak stems; like Nitrogen it leaches from the soil but not as quickly, so repeat treatment every so often

An easy way to remember the order is 'up [foliage], down [roots], all around'.

It's in the bag

Fertiliser comprises the active ingredients (N, P, K) and a filler, usually sand or granular limestone, that helps ensure an even distribution. The N, P, K figures are percentages. So an all-purpose fertiliser is referred to as 10:10:10. This is a balanced blend of equal portions of N, P, and K. If you purchased a 5kg bag, 500g (or 10%) would be nitrogen, 500g would be phosphates, and 500g would be potassium. The remaining 70% (3.5kg) is the filler.

The figure in brackets after the three main figures is the percentage of the contents of the bag that are the active ingredients; essentially, its concentration, so the higher the number, the stronger the mix. A 10:10:10 (20) is stronger than a 10:10:10 (15) mix.

SR

The letters SR after the numbers mean Slow Release, so instead of being instantly available to the plant (possibly damaging it) the fertiliser is released to the plant evenly over a period of time. This means it lasts longer and you don't need to reapply it so soon, and can apply it at less frequent intervals.

Organic or inorganic?

The fertilisers we have dealt with above are inorganic – in other words, chemical – and are formulated accurately giving the gardener great control over exactly what they are putting on the plants. Organic fertilisers often include micro elements, which result in a more balanced diet for plants. Some authorities maintain that regular application of organic fertilisers will result in healthier plants overall.

Read the instructions... more is not better

Nitrogen, for instance, can burn a plant if applied without being watered in, or if applied in too great a quantity, so make sure before applying any fertiliser that you read the instructions and follow them carefully.

Soil test

Experienced gardeners and experts can often take one look at a garden and its plants and know exactly what has to be applied, where and in what strength. For the rest of us, a soil test can be a good idea. It will provide a wealth of information about your garden's soil – or possibly soils, allowing you to make informed decisions as to what to apply, where.

### Spread a little fertiliser

For fertiliser to do its job properly, it needs to be spread properly, and one of the best ways is with a spreader, which you simply load up and push along the ground. Just make sure that any lumps of fertiliser are broken down beforehand so that you get the spread you want.

### Flour power

Here's a tip... before spreading fertiliser over a large area, mix in a couple of handfuls of flour in with the fertiliser. As you spread it, the flour will leave a white trail so you can easily see where you have been. When the fertiliser is watered in, the white flour trails will disappear.

1. An assortment of fertilisers. As you can see, each one has a different formulation and is designed for a different purpose.
2. This sort of spreader allows you to distribute the fertiliser evenly. Just make sure that any lumps in the hopper have been broken down beforehand. A caution: For safety's sake, before spreading fertiliser, remove pets from the area – such as this tortoise – so that they do not inadvertently ingest any of the material. They can be returned once the fertiliser has been well watered in.