

# Choosing The Right Fertiliser For You

When it comes to choice of fertiliser for turf the options are many; so for most of us this is where confusion sets in. We need to break the selection process down into parts, to help get to the product that is right for you.

## But first . . The Basics

Most fertilisers are described by three primary nutrients;

N (Nitrogen)

P (Phosphorous)

K (Potassium – sometimes referred to as potash).

On a label these are usually expressed as the percentage (by weight) of each nutrient contained in the pack, in what is called the 'analysis'. For example the familiar garden fertiliser 'Growmore' has an analysis of 7-7-7 and a 25kg bag will contain 7% (1.75kg) of N, 7% (1.75kg) of P and 7% (1.75kg) of K.



The rest of the material you buy with this product is the granular carrier designed to facilitate the easy distribution of the fertiliser in the soil.

There may be other important nutrients included in the product analysis such as Iron (Fe) and Magnesium (Mg).

So the analysis of the product might be shown as:

14.0.14 + 2 Fe + 2 Mg – as with our product Evolution<sup>2</sup> Micro Granule 14.0.14.

The 14-0-14 is the N-P-K with percentages of iron and magnesium added to the end.



## Nutrient Functions

What part do these nutrients play in the growth of plants? This is a very complex subject, so we'll briefly highlight each one in turn: -

### Nitrogen

Important for promoting vegetative growth; it is essential to the plant in the manufacture of most cell components such as proteins, chlorophyll, nucleic acids, lipids and growth hormones.

Nitrogen can be 'fixed' (taken from the atmosphere) by certain bacteria living in the root nodules of some plants (e.g. Clover) and it is re-cycled back into the soil when organic matter (dead plants/old roots) are broken down or 'composted' in the ground. A small amount is present in rainfall but most is applied with fertilisers!

### Phosphorous

Important constituent of every plant cell and vital for healthy growth. Potassium is especially important in the energy transformations in the cell, this is the conversion of stored energy (sugars/starch) into useable energy that is released by breaking down starch in a process known as respiration.

Most soils contain vast reserves of Phosphorous so the amount required in a fertiliser is often very low or zero. Phosphorous is particularly important to promote deep rooting in the autumn and winter months and for the establishment of young plants – so pre-seed fertiliser and autumn / winter fertilisers may contain more P in relation to N and K – for example our pre-seed fertiliser has an analysis of 6-9-6

### Potassium

Important in many cell functions including; carbohydrate synthesis (energy storage), temperature control in the plant and it helps to thicken cell walls in the autumn in preparation for the low winter temperatures.

Plants need considerable amounts of potassium throughout the year so spring/summer fertilisers may contain as much K as they do N.

Analyses for the autumn and winter period may contain considerably more K than N as the soil can often need to be replenished with this nutrient in preparation for next spring's growth.



**Now choose a fertiliser using the following criteria:**

### 1) Solid or Liquid?

Granular fertilisers are fairly easy to handle but spreading them evenly can be difficult if you don't have a granule spreader so you may want to choose a liquid product.

Liquid fertilisers can be applied through a knapsack sprayer or even with a watering can on a smaller area. Because the concentrate is diluted before you apply it, a liquid fertiliser will give a more even coverage – no matter at what rate it is applied.

One setback with liquid feeding is that the results are not as long-lasting as granular fertilisers. A conventional granular lawn fertiliser will last 6 to 8 weeks or more whereas a conventional liquid will only stimulate growth for 3 to 4 weeks. You can buy a slow release liquid that will give an extra two to three weeks of growth response.



### 2) A product for all seasons

The next choice is to select the right analysis for the season; autumn/winter fertilisers have less N and more P & K, spring/summer fertilisers have more N

### 3) Fine Turf or Lawn & Outfield?

Fine Turf Fertilisers have a smaller granule size and are intended for turf mown at a height of 6mm or less. Most ornamental lawns should be maintained at 12mm to 25mm height so a mini granular fertiliser is more suitable for these areas and usually less expensive.

### 4) Conventional release or controlled release?

Controlled release fertilisers have some mechanism to delay the nutrient release so that the growth stimulation is more even and spread over a longer period – usually 3 to 5 months.

Some products have a polymer coating to slow the release of nutrients from the granule – such as Evolution5 Fine Granule 25.5.8, which has Polymer Sulphur Coated Urea granules providing a smooth and steady growth pattern for up to 5 months. Whereas, Marathon Sport Autumn 7.0.21 has a patented organic complex base that provides the extended release characteristics and gives gentle root development without producing excessive top growth over 3 to 4 months.



### 5) Organic or mineral based fertiliser?

The nutrient bases for conventional granular fertilisers are minerals that are mined from non-renewable sources in various parts of the world.

However we do have a range of organic-based fertilisers that derive some or all of their nutrients from organic renewable sources such as poultry manure and green composts.

Organic fertilisers can improve the health of soils by encouraging the proliferation of natural bacteria, fungi and other beneficial micro-organisms.

