



# **Fertilisers for Recreational Areas (Parks, Lawns, Home Gardens)**

Incitec Pivot Fertilisers does not market a range of home garden fertilisers in small packs of less than 25 kg for sale through nurseries, hardware stores and supermarkets. The company's products are primarily intended for use in agriculture and are sold through rural merchants. They are sometimes purchased through such outlets for use in recreational areas, i.e. park lands, sporting fields, lawns and home gardens.

This Fact Sheet has been prepared with such uses in mind. It provides basic details on the label information on fertilisers, and the analyses of commonly used products.

## **PLANT NUTRIENTS**

Apart from air and water, plants draw nutrients from the soil via their root system. These nutrients, however, are not always present in adequate supply. The soil may be infertile to start with, or fertile topsoil may have been lost or removed during land development, exposing less fertile subsoil, and through soil erosion. Further drains on soil fertility occur when grass clippings and edible produce are removed.

It is often necessary to apply fertiliser to make up for shortfalls in the soil's ability to supply one or more of these nutrients. Ongoing applications are then necessary, to maintain fertility, and to replace nutrients that are lost and removed in plant growth. The three primary nutrients in fertiliser programs are nitrogen (N), phosphorus (P) and potassium (K). These nutrients may be applied individually, but are more commonly applied as complete NPK fertilisers.

## **FERTILISER LABELS**

Fertiliser labels show the nitrogen, phosphorus, potassium and sulfur (S) analysis, in that order. Further information is provided on calcium (Ca) and magnesium (Mg), followed by the micronutrients (trace elements), if present. In addition, the concentration of various impurities will also be declared, plus any relevant Warning Statements. Agricultural fertiliser labels do not carry detailed "Use Directions". Separate Fact Sheets are available detailing fertiliser programs for lawns and home gardens.

## **HEAVY METAL IMPURITIES**

The concentrations of cadmium (Cd), lead (Pb) and mercury (Hg) are shown on the product label. These are present as impurities in the raw materials from which fertiliser is made, e.g. ores and acids. The levels present are mostly of no concern. Warning Statements are required if their concentrations exceed typical background level present in agricultural soils, i.e. 1 mg/kg Cd, 20 mg/kg Hg and 0.2 mg/kg Hg.

Cadmium, which is present as an impurity in phosphate rock, attracts most attention. It can accumulate in soils where phosphorus is applied regularly at high rates. This in turn can lead to elevated cadmium concentrations in farm produce, e.g. root and leaf vegetables. While consumption of such produce is not harmful in the short term and will not result in sudden illness, long term consumption over a lifetime may potentially affect health, e.g. renal (or kidney) failure.

Incitec Pivot SuPerfect (Single Superphosphate) has a higher cadmium content than other P fertilisers marketed by Incitec Pivot, such as DAP. SuPerfect is primarily intended for use on pasture. SuPerfect may be used on lawns and playing fields, but is not recommended for and should not be used where vegetables are or may be grown.

## COMMONLY USED FERTILISERS

The analyses of some of the more commonly used fertilisers in recreational areas are shown in the following table. Fertilisers that are comparatively high in phosphorus are generally used when planting flowers and vegetables, and when establishing a lawn. Fertilisers that are comparatively higher in nitrogen and potassium are used on established lawns, and on shrubs and fruit trees.

**Incitec Pivot Fertiliser Product Analyses**

Product	Analysis			
	% N	% P	% K	% S
<b>Straight Fertilisers</b>				
Granular Urea	46			
DAP	18	20		1.6
SuPerfect		8.8		11.0
Muriate of Potash			50	
<b>NPK Planting Fertilisers (Vegetables, Flower Beds)</b>				
Complete Mix 1 (All States)	7.6	9.5	9.6	8.6
Croplift 800 (NSW, Vic & SA)	7.9	10.5	10.0	6.8
CK 800 (Qld)	8.1	10.4	10.0	7.5
Grower 11 (NSW)	9.6	14.5	9.5	4.6
NPKS 11-15-14-1 (NSW, Vic)	11.0	14.9	14.0	1.1
CK 55 (Qld)	13.5	15	12.5	1.2
<b>NPK Lawn and Tree Fertilisers</b>				
Complete Mix 3 (NSW, Vic, SA)	10.5	5.0	10.3	16.8
Complete Mix 7 (NSW, Vic)	14.6	3.0	7.1	17.2
Multigro (NSW, Vic)	13.1	4.5	7.2	15.4
No 17 Lawn Food (S) (NSW)	9.1	3.8	4.9	17.7
CK 88 (Qld)	15.1	4.4	11.5	13.6
Nitrophoska Special (All States)	12.0	5.2	14.1	6.0

The above NPK fertilisers, with the exception of Nitrophoska Special, are Blends.  
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