

## FERTFACTS

# FERTILISING GOLF COURSES

## (Northern Territory, Queensland and Northern NSW Fact Sheet)

This Fact Sheet contains brief Use Directions only, which by necessity are of a general nature. Fertiliser programs may need to be varied depending on the grass species being grown, the soil's fertility, and cultural practices.

### FAIRWAYS

#### Soil Ameliorants

If **Lime** is required, i.e. on acid (low pH) soils, apply it at 1 250 to 2 500 kg/ha (1.25 - 2.5 t/ha).

If **Gypsum** is required to improve the tilth of sodic soils with poor physical structure, i.e. soils that set hard and have poor water infiltration rates and internal drainage, apply it at 5 000 kg/ha (5 t/ha).

Such applications may remain effective for several years.

#### NPK Fertiliser

Couch fairways respond well to fertiliser, particularly over the warmer months of the year.

Responses will be slower over winter when the cooler temperatures slow grass growth.

The vigour and colour of the grass can be used as a guide to when it is necessary to reapply fertiliser. Nitrogen deficient grass will have a pale green colour, and be slow to grow.

As a general guide, apply Incitec Pivot CK 88 or BASF Nitrophoska Blue Special on three occasions per year (September, December and March) at 300 kg/ha per application.



Fertiliser granules and dust that lodge on plant leaves may burn the foliage. Therefore, if irrigation is available, it is best to water the fertiliser into the soil after application. This should be done as soon as possible on the day of application.

If the fertiliser can be applied when rain is imminent, this may avoid the need to water the fertiliser in. 10 - 15 mm of rain should be adequate.

If the fertiliser is left dry on the leaves, it can absorb atmospheric moisture or dissolve in overnight dew, forming a concentrated solution that burns the plant foliage. Light rain or showers will have the same effect as dew, enough to dissolve the fertiliser but not enough to wash it off the leaves and into the soil.

Watering the fertiliser in also minimises the risk of any gaseous nitrogen losses to the atmosphere, which can occur after the surface application of many nitrogen fertilisers, and avoids the risk of accidental ingestion by children, pets or wildlife.

Applying fertiliser to wet grass with no prospect of follow up rain or irrigation poses the greatest risk of fertiliser burn, as more fertiliser granules will lodge on leaves rather than fall through the canopy.

## GREENS AND TEES

**Lime** - If the soil is acid, i.e. has a low pH, apply lime at up to 25 kg per 100 square metres split into 2 or 3 applications 6 months apart. Thereafter, lime is likely to continue to be required, but on a less frequent basis.

**Gypsum** - Because of traffic, and even where greens are well constructed, well drained and regularly cored or drilled; compaction, failure to hold and failure to accept water can occur as a result of soil compaction and breakdown in physical structure. In these situations an application of gypsum at 50 kg per 100 square metres split into 2 applications 6 months apart may assist in changing the physical characteristics of the soil. This will aid water penetration, drainage and availability of plant nutrients. The effects will generally last a few years.

**Nitrogen (N), Phosphorus (P) and Potassium (K)** - Regular, monthly application of fertilisers to greens and tees is recommended. This allows fertiliser requirements to be matched to grass growth, keeping greens and tees in good order and minimising loss of nutrients through leaching. Given the sandy nature of soils used in greens and tees and the shallow rooting depth of the grasses, nutrients can easily be lost through leaching.

Evenness of fertiliser application on tees and greens is important and this can be best obtained by making up and applying fertiliser solutions. It is best to use Soluble Fine or Solution Grade fertilisers for this purpose. Fertiliser solutions can be made up in a 50 L drum, the contents of which can be injected into the irrigation line, or applied by a Venturi sprayer to provide even application over tees and greens.

A basic mixture, supplying nitrogen, phosphorus, potassium and sulphur, to be applied every month to each 100 square metres is:

- Liquifert N            400 grams    (Urea)
- Liquifert P            100 grams    (Monoammonium Phosphate or MAP)
- Liquifert K-Spray 250 grams    (Potassium Sulphate or Sulphate of Potash)

Apply the fertiliser solution in an adequate volume of water, or water the green immediately after application, to wash the fertiliser solution off the leaves. This avoids leaf burn and ensures that the fertiliser reaches the soil from which it is taken up by the grass roots.

During the wetter months of the year when the turfgrasses are growing most actively, it may be best to apply nitrogen on a more regular basis at lower rates, so that cumulatively a little more nitrogen is applied. Rather than apply 400 g of Liquifert N (urea) per month, as detailed in the above program, apply 250 g per 100 square metres every 2 weeks.

Micronutrients - Iron Sulphate or Iron Chelate can be applied at 25 to 50 grams per 100 square metres to provide a quick "greening" effect should iron deficiency occur (alternate stripes of green veins and yellow interveinal areas in grass leaves). Care should be exercised in applying iron fertiliser as excessive or uneven application can burn the green.

## PETS AND WILDLIFE

While the risk is slight, the ingestion of freshly-applied fertiliser may temporarily affect the health of grazing animals and wildlife, and in isolated incidents result in death. If practical, it is best to remove animals from areas being fertilised, and not to readmit them until after rain is received or irrigation applied, and regrowth occurs. This minimises the risk of direct ingestion of fertiliser, and nitrate poisoning of grazing animals from young regrowth.

## FOR MORE DETAILED INFORMATION

For further information, a copy of the Incitec Pivot Agritopic on "Golf Course Care and Maintenance (Qld and Northern NSW)" is available if more detailed information is required. These can be obtained from your Incitec Pivot Fertiliser distributor.

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