

Upgrade to a **SUPERFECT**[®] blend



By Lee Menhenett - Technical Agronomist

SuPerfect is the perfect fertiliser for many grazing businesses, with tried and true performance in the paddock, year in, year out.

But it doesn't fully suit every paddock, all the time. Sometimes a boost of potassium or a trace of copper is needed.

For these situations, SuPerfect blends are a convenient solution. Graziers are still supplying the right balance of readily available phosphorus and sulphur to their legume-based pastures, plus meeting any additional requirements.

Challenge yourself to consider an upgrade each time you're asked for SuPerfect this season and help your grazier customers maintain a truly productive and sustainable pasture system.

Consider potassium

Potassium is a major nutrient required for healthy plant and animal growth.

It is often required by pastures, particularly where hay and silage has been removed, on light sandy soils, in high rainfall areas and on granite-based soils.

When rebuilding potassium levels from a low base, it is beneficial to plan several smaller applications using SuPerfect blends rather than make one large application.

Care needs to be taken when applying potassium at high rates, as luxury uptake may lead to nutrient imbalances in livestock, which can contribute to animal health issues.

Soil testing through the Nutrient Advantage[®] laboratory is a good way to assess the need for potassium. When sampling, be aware that potassium levels may be higher in areas of the paddock where livestock tend to gather.

SuPerfect blends well with Muriate of Potash at ratios of between 1:1 and 5:1.

Consider trace elements

Trace elements play a critical role in helping to maintain a productive, sustainable pasture system. They can also help with maintaining stock health and fertility.

A range of trace elements can be supplied in blends with SuPerfect for simple and effective application in pastures, including molybdenum, copper, zinc, boron, cobalt and manganese.

The best way to assess the need for trace elements in pastures is through leaf tissue testing.

One of the most commonly used blends in pastures is SuPerfect with molybdenum.

While molybdenum plays important roles in a range of plant functions, it is particularly important for legume growth because it is needed by the rhizobium nodules for nitrogen fixation.

Clovers, medic and lucerne are likely to be the first to show a molybdenum deficiency. Signs include stunted growth and rhizobium nodules becoming pale and colourless.

In pastures grown on acid soils, 50-100 g/ha of molybdenum should be applied every five to ten years.

Applying excessive rates of molybdenum may induce copper deficiency in livestock.

In some soils, such as acidic sandy loams in high rainfall areas, copper should be applied with molybdenum. Avoid applying molybdenum in the same year as lime, as the availability of molybdenum increases with increasing pH and can exacerbate copper deficiencies.

Recommend a blend of SuPerfect with SuPerfect Mo King Mix (0.4% molybdenum) to apply the very low rates of moly needed for several years of productive pasture.

In New South Wales, SuPerfect Mo (0.025% or 0.05%) can be applied to pastures as a straight or blended with SuPerfect for lower rates of molybdenum.

Sometimes, copper fertiliser is needed to maintain adequate copper levels in the herbage for stock. Animal health issues can arise before the pasture shows signs of copper deficiency.

As well as tissue testing the pasture to check on copper levels, stock can have their copper levels monitored with blood tests.

Adequate copper levels also drive the persistence of annual pasture legumes like sub clover. Where copper is required, application rates are typically 1 to 2 kg/ha of copper every four to five years.

SuPerfect Cu King Mix (4% copper) can be blended with SuPerfect to supply copper evenly to the paddock.

Manganese deficiency is often associated with coastal calcareous soils and alkaline soils. The deficiency in plants is typified by chlorosis or yellowing.

Where it is required, manganese sulphate (31% manganese) can be blended with SuPerfect. It should be applied soon after blending.

Zinc is also essential for a range of critical plant growth functions, including photosynthesis. Deficiencies can lead to animal health problems including poor reproductive performance, skin lesions and hoof integrity issues.

Tissue testing is the best way to monitor zinc levels in pasture.

Where zinc is required, apply 1 to 2 kg/ha of zinc every three to five years.

Granulock® Big Z (10% zinc) can be blended with SuPerfect to supply low rates of zinc.



Boron is necessary for the nodulation of roots in legumes as well as a range of plant functions. Boron deficiencies have been known to occur in clover and lucerne.

Always confirm a boron deficiency with a leaf tissue test prior to applying boron fertiliser.

Care should be taken when applying boron to avoid boron toxicity. Low rates should be used, such as 0.5 to 0.75 kg/ha of boron every six years. On limed paddocks, rates of up to 2.5 kg/ha of boron could be required.

There is only a small margin between boron deficiency and toxicity, so advisers need to be certain about the need for boron before recommending its application.

There are two boron products available for blending with SuPerfect - Granubor® (14.3% boron) and Ulexite (12% boron).

Cobalt is essential for the health of ruminant animals. It is also needed by rhizobial bacteria.

Vitamin B12 is synthesised by rumen microbes from dietary cobalt. Cobalt deficiencies tend to occur in spring or when pasture growth rates are high, because of a lack of soil ingestion by the animal.

Apply 25 to 50 g/ha of cobalt every two to four years. Cobalt fertiliser can be used in conjunction with B12 injections or lick blocks.

SuPerfect Co (0.12% cobalt) is usually blended with SuPerfect to supply the low rates required.

For more information on SuPerfect blends, feel free to contact me on 0412 565 176 or lee.menhenett@incitecpivot.com.au.

For more information about soil and leaf testing, contact [Nutrient Advantage Laboratory Services](#) on 1800 803 453.



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