



Ask yourself: Is this the moment for molybdenum?

If it has been five years or more since you have applied molybdenum, take a moment to consider whether it could be a valuable addition to your fertiliser program this year. Read on for advice from Incitec Pivot Fertilisers' technical agronomists, Lee Menhenett and Jim Laycock.

Molybdenum is needed by the rhizobia bacteria for efficient nitrogen fixation in the root nodules of legumes.

In fact, there can be spectacular results in legume-based pastures where molybdenum deficiencies are corrected, thanks to better fixation of nitrogen from clovers.

To make sure your legumes are functioning effectively with the right nutrition from molybdenum, a leaf tissue test is a good starting point.

Tissue testing measures the availability of molybdenum to your pastures. It is the most reliable method for diagnosing molybdenum deficiency.

While you're already testing, ensure the soil is not too acidic with a soil test. Molybdenum is less available to pastures at soil pH (CaCl_2) levels below 5.

Simply improving soil pH may increase the availability of molybdenum – and other valuable nutrients too. If this is your course of action, hold off on applying molybdenum for 12 months, then tissue test to see whether the nutrient is still needed.

You might also consider the performance of your pastures, soil type and paddock history to decide whether this is the moment for molybdenum.

If you are looking for a deficiency, you'll probably see it first in legumes such as clovers, medic and lucerne, with stunted growth and a general paleness. Rhizobium nodules may become pale and colourless too.

In non-legume pasture species, molybdenum deficient leaves may have a mottled pale appearance, stunted growth and burn on the margins of mature leaves.

Molybdenum deficiency is more likely to occur on highly weathered limestone soils that are low in native phosphorus, potassium and calcium.

Last but not least, if paddock records show no sign of molybdenum for the past five years and soil pH is less than 5 (pH CaCl_2), it could certainly be time.



When applying molybdenum, only small amounts are needed, even when correcting a deficiency.

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

This can be applied with a regular fertiliser application, either as a SuPerfect® Mo blend or as a sodium molybdate spray coating.

Remember that the rate it will be applied to pastures will depend on the rate of application of the base product. If high rates of phosphorus are being applied, a lower concentration of molybdenum should be added.

Applying excess amounts 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.

Molybdenum is a small investment that can offer significant returns in the productivity of your pastures.

Arrange a tissue test through the Nutrient Advantage® laboratory to find out more about the need for molybdenum in your pastures.

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