



## Soil tests help correct farm sulphur balance

PHOSPHORUS and nitrogen are at the fore of annual pasture fertiliser programs, says Incitec Pivot Fertilisers technical agronomist-pastures Lee Menhenett. But he urges farmers not to forget about another important element – sulphur.

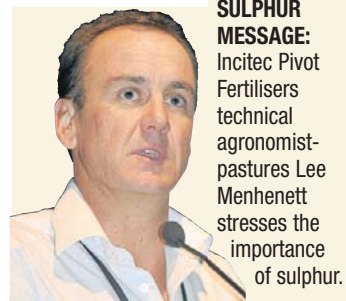
Speaking at the Grassland Society of Southern Australia annual conference at Hamilton, Victoria last week, he said the increased use of high-analysis fertilisers and soil leaching from drought followed by wet conditions had contributed to large numbers of soil samples showing a sulphur deficiency.

Results from Incitec Pivot's Nutrient Advantage Laboratory in the past six months of 2010 showed 33 per cent of the 1633 Victorian pasture soil samples and 56pc of 1151 pastures sampled from New South Wales were deficient or marginally deficient in sulphur. There were also similar numbers of samples with high or very high levels of sulphur, indicating lower or nil rates of maintenance sulphur fertilisers were required.

The small number of samples taken from the South East followed a similar trend, with just 7pc of the 14 samples in the adequate range of 6.5-7.5 milligrams a kilogram of sulphur determined by the *'Better Fertiliser Decisions for Pastures'* project.

Mr Menhenett said the only way for farmers to be sure of their soil sulphur levels was to soil-test their individual paddocks on a regular basis.

"Farmers are always complaining about fertiliser prices being too dear but then they go and blindly apply it without understanding where they sit," he said.



**SULPHUR MESSAGE:** Incitec Pivot Fertilisers technical agronomist-pastures Lee Menhenett stresses the importance of sulphur.

Sulphur was critical in driving dry matter production in extensive legume-based systems and was needed for good plant health and disease resistance.

"If you have lower sulphur levels you will not have the nodule formation to fix nitrogen from the atmosphere, and lower numbers of subclover seed will set for the following season," he said.

In recent trials, single superphosphate had remained a strong performer in supplying phosphorus and sulphur to plants, and being present as sulphate it was readily taken up by the plant roots for a quick response in sulphur-deficient pastures.

But in this form it was also prone to leaching, particularly in lighter soils and high rainfall.

Newer products such as MAP which comprised 44pc sulphate sulphur and 56pc elemental sulphur had shown a more sustained response but their actions depended on soil temperature and pH and the particle size of the elemental sulphur. Elemental sulphur needed to be oxidised to sulphate by soil microorganisms before it was taken up by the plant.