

Applying phosphorus with nitrogen fertiliser, the ability to better manage cash flow and the belief that it grows more grass have meant that many farmers are now applying phosphorus fertiliser at lower rates, but several times throughout the year (split applications). A TIAR research project has found that this fertiliser strategy doesn't result in more pasture growth where phosphorus is concerned. The study also found that the season in which you apply phosphorus fertiliser does not affect pasture growth when soils already have optimum phosphorus levels.

The study was undertaken on 3 productive dryland dairy properties in Tasmania to include a range of soil phosphorus lock-up capacities and all

The Making Better Fertiliser Decisions for Grazed Pastures in Australia project has shown that the optimum soil Olsen P level for Tasmanian pastures sampled to a depth of 7.5cm is 16 to 20 mg/kg.

sites had above optimum soil Olsen P levels (greater than 20 mg/kg). Phosphorus fertiliser was applied up to 5 times per year, compared to the same total rates applied as a single application. Phosphorus was also applied during different seasons to see if this affected pasture growth. Nitrogen fertiliser was applied strategically after pasture harvests.

Pasture was harvested when ryegrass grew 2-3 live leaves per tiller and pasture was weighed to measure the effect of the phosphorus fertiliser treatments on growth. The study found that when soil phosphorus levels were already adequate, applying phosphorus at lower rates and more often did not grow more pasture. The time of year that the phosphorus was

applied also had no effect on pasture growth.

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If soil phosphorus levels are already within the optimum range, phosphorus fertiliser applications are not required, as economic increases in pasture production are unlikely.

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