

## Big yield differences recorded in trials

Standard MAP or DAP granular fertiliser mixed in water with micronutrients and held in suspension by clay has again produced impressive crop yield performances in Eyre Peninsula trials.

Labelled 'suspension fertilisers' the yields they produce are being compared with those from clear fluid fertiliser such as ammonium polyphosphate, and also granular fertiliser.

The work is an initiative of the Minnipa Agricultural Centre and is supported by the SAGIT in an attempt to find a cheaper alternative fertiliser to clear fluid fertiliser which outperforms granular fertiliser on soils with a high capacity to fix phosphorus.

At three sites in 2002 both the clear fluid and suspension fertilisers produced higher yields than granular fertiliser – the biggest yield difference being 38 per cent between a suspension fertiliser and a granular fertiliser at Yandra on a grey, highly calcareous soil.

The trials were conducted again in 2003. The officer-in-charge of Minnipa Agricultural Centre, Dr Bob Holloway said there were three sites at which comparisons were made between granular (DAP), clear fluid ammonium polyphosphate (APP) and suspension fertilisers.

He said at each site 10 kg P/ha; 20 kg of N/ha and 1.3 kg of Zn/ha were applied. In the case of APP, zinc was applied separately but it was mixed with the suspension treatment. The sites were:

- \* Elliston – a grey calcareous soil with about 70 pc calcium carbonate.
- \* Warramboe – a grey calcareous soil with about 64 pc calcium carbonate.
- \* Karcultaby – a red brown calcareous sandy loam (about 15 pc calcium carbonate) with the area having a dry year.

At both Elliston and Warramboe the suspension treatments out-yielded the APP and the granular DAP treatments. The biggest difference recorded was at Warramboe where the average wheat yield from an experimental commercially-produced suspension fertiliser was 2939 kg/ha compared with 2745 kg/ha for APP and 2512 kg/ha for DAP.

At Karcultaby the APP produced yields slightly higher than two suspension fertilisers which in turn produced slightly higher yields than the DAP.

The SAGIT is producing a 2-page bulletin on the suspension fertiliser research and this will be available on its website [www.sagit.com.au](http://www.sagit.com.au)

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Bobh2ok