

Using Pelletised Compost

A recent trial applying pelletised compost 'down the tube' of an airseeder along with triticale seed, resulted in triple the crop yield and increased profit per hectare.

Compost application

Spreading loose compost across the soil surface requires large volumes of compost and does not guarantee incorporation into the soil.

Pelletised compost is concentrated due to the lower water content compared to loose compost. Shaping the compost into seed-sized pellets allows application using an airseeder when sowing. As well as simplifying application, this allows direct application of compost into the soil near the seed to maximise impact.

Yield benefits

All treatments resulted in higher yield than no compost. The highest yield was achieved from the 100kg/ha compost treatment, which was triple the yield compared with no compost.

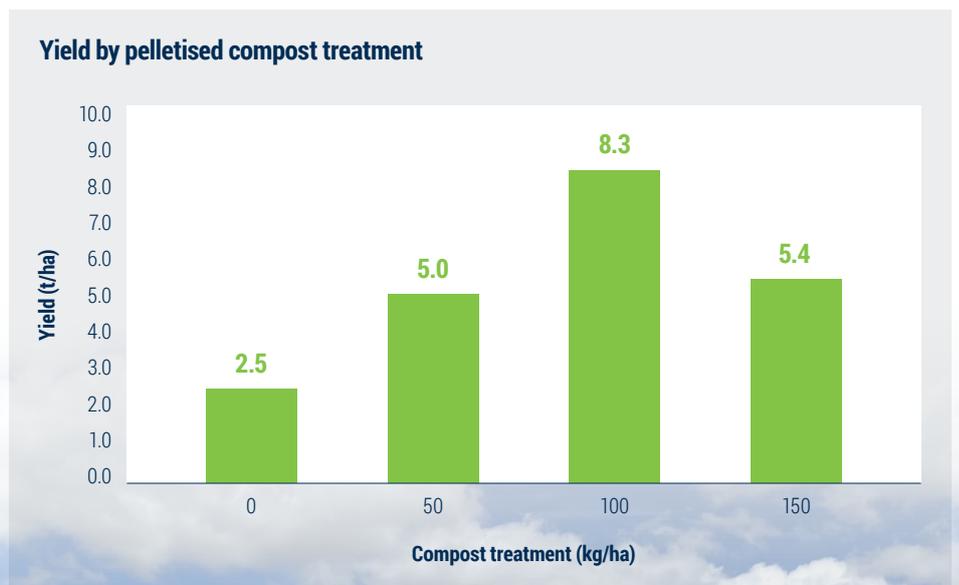
Plant density measurements of the 150kg/ha treatment showed increased germination which would have resulted in high yield. However, the drop off in yield at harvest could be due to the early maturity, with resulting yield being missed at harvest.



The trial

In addition to a control without compost, three application rates of pelletised compost were used in the trial – 50kg/ha, 100kg/ha and 150kg/ha.

'All treatments resulted in higher yield than no compost.'



Reduced application costs

Pelletised compost application using an airseeder is significantly cheaper than spreading loose compost due to the lower application rate required. In addition, loose compost has separate spreading costs whereas pelletised compost application can be incorporated into the sowing activity.

Costs	Pelletised compost	Loose compost
Purchase price	\$450/t	\$30/t
Application rate	0.1	t/ha
Additional spreading costs	\$0/ha	\$150/ha
Overall cost per hectare	\$45/ha	\$450/ha

Increased profit

The higher yield from pelletised compost application resulted in an increase in profit per hectare for all treatments.

Based on a triticale sale price of \$170/t, the increased yield resulted in additional profit of almost \$1,000/ha.

Compost treatment	Profit per ha
0 t/ha	\$425
50 t/ha	\$828
100 t/ha	\$1,366
150 t/ha	\$902

Soil benefits

Compost has been demonstrated to improve soil health by increasing organic matter, water holding capacity and biological activity.

Other soil improvements observed in this trial include:

- Acidic soil pH neutralised by compost
- Improved carbon-to-nitrogen ratio
- Increased microbial carbon content
- Increased cation exchange capacity to improve nutrient availability

'Improve soil health by increasing organic matter, water holding capacity and biological activity.'



For more information about the trial, email organics@mraconsulting.com.au or call 02 8541 6169



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