Woodlands Hill Sowing Trial Shows Great Results

Australian Fodder Industry Association Member Bartyn (BJ) Dall is a substantial cropper and hay producer at "Woodlands Hill", Kybunga (SA). He has worked with BioAg since its inception, and with MD Anton Barton for a few years before that.
Always experimenting to improve quality and production, this season he conducted a trial to compare different soil treatments at planting in terms of their effect on grain quality and yield.

Treatment
When planting Commander malting barley in May 2010 at 100kg/ha seed rate, he treated half of a paddock with 60kg/ha MAP, 3l/ha BioAg Soil & Seed®, 1kg /ha zinc sulphate and 500g/ha copper sulphate. The other half of the paddock (the "control") received the 60kg/ha MAP only.
Both the treated area and the control received a total of 125kg/ha urea in two applications - one at six weeks and the other at 14 weeks.
The entire crop was treated with 1.8 l/ha BioAg Fruit & Balance®, 300 gm/ha zinc sulphate, 150 gm/ha copper sulphate and 500ml/ha of Opus® (Nufarm fungicide) by aerial application during the second week of September.

Yield
The control yielded 4.2 t/ha and the trial area yielded 5.7 t/ha, a 1.5 t/ha yield increase.

Quality
Grading
When the crop was harvested and delivered, it was graded F1 because of some black point caused by excess rain.
Observations
Mr Dall's observations during the season were that the head size of the treated crop was significantly larger than that of the control, the vegetation was a lot fresher and greener, the root system was much more developed and much harder to pull out of the ground. There was less disease in the treated crop, and about half the rye grass. In all, he was very satisfied with the outcome.

Much improved head development.

Economics
The delivered to port price was $291 per tonne with $13 of freight included, yielding an on-farm price of $278 per tonne. The cost of the additional treatment at sowing was approximately $20/ha. The

increased production of 1.5 tonne/ha yielded additional revenue of $417/ha. The net benefit of the application is thus $397/ha.

The trial paddock – "control" on the left, treated area on the right.

Agronomist's Observations

The visual difference in the crop was observable from an early stage. From the initial emergence to when the crop had started to fill, the appearance of the grain size and the vigour of the crop was "chalk and cheese". The ability of the treated area to resist disease pressure was also visible, with noticeably less leaf disease in the treated area compared with the rest of the crop, the main disease being a spot form of net blotch. With the early vigour, the weed pressure was also considerably reduced in the treated area.

Visual appearance does not always correlate to an increase in yield at harvest, but in this case the difference also showed up once the header was in the paddock. The size of the heads six weeks before harvest was 30% greater compared with that in the untreated area. This was supported by the 1.5 tonne per ha increase in yield.

This was one of those accidental trials which proved that for a small increase in initial cost, the rewards can be great.

Rob Calaby, Director, Mid North Ag Services, Clare, SA

Comparing the root mass (treated crop on the left).

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