

Controlling cereal disease by grazing

Half grazed SEPWA Trial
26 July 2011



Why we did the trial

•After seeing a SEPWA farmer grazing x variety trial in 2010.

•Farmer concern over seed dressings with long with-holding periods of 6 weeks or more. GG2 forum confirmed this was an issue of concern.

•The DAFWA GRDC Barley Agronomy wants you to keep growing barley profitably.

•A small plot trial was sown in 2011 in the high disease risk environment of Gibson (north of Esperance).

Grazing x disease trial 11ED18

Trial aims:

1. Does grazing control early leaf diseases?
2. By grazing, can we avoid using seed dressings with long grazing with-holding periods?

Baudin sown 11 May – Gibson

"Grazed" - mowing weekly

Two seed dressings

- Zorro or no Zorro

Foliar fung. regime – nil, full control

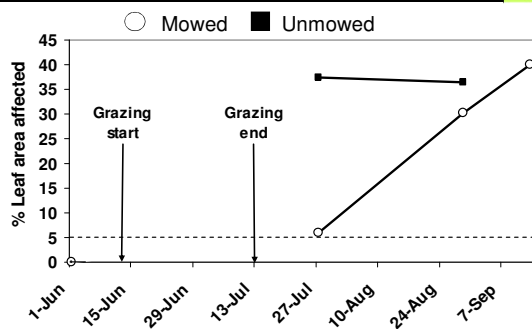
Prosaro @ 150ml/ha + 1% Hasten

Mowed for 5 weeks:

13 June – 19 July



Mildew progress through 2011



Plants 3 days after mowing



18 July 2011

To sum it up...

1. Yes, grazing to stem elongation controlled disease build up w/out mildew seed dressing. "Canopy management"
2. After grazing, disease built up quickly – 2 wks post grazing Baudin needed a spray.
3. Grazing ok on grain quality – hecto and 2.5 mm screenings better, colour and protein similar to ungrazed (ns) but had yield penalty – 600kg/ha
4. Triadimenol ineffective on barley mildew

Other benefits of grazing:



- Plant height reduced and straw strength increased - good for Buloke, Scope, Gairdner, Stirling, Vlamingh, Commander
- Delays flowering date by up to 2 wks – could avoid frosts despite early sowing.

Recommendations



- Apply only a smut seed dressing if you plan to graze (4 wk WHP). Decide before sowing which paddocks will definitely be grazed.
- Crop monitoring is essential after grazing finishes - disease susceptible varieties eg. Baudin, still need follow up care.
- Trend suggests putting a bit of extra N on after grazing finishes if N levels are in doubt (aim for 10.5% protein).

Questions?



Thank-you and have a good 2012

... and stay tuned for more DAFWA research in 2012 on grazing and its impact on malting barley

***“Great barley
Great beer”***