



Post-plant fungicide applications

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Project VN05007



Background

- Currently, fungicide is only applied to prevent early white rot disease, but there is no commercially effective program to extend crop protection until harvest.
- If widespread late infections occur, are fungicide applications useful?

Objectives

- Evaluate & identify suitable fungicide options.
- Develop post-plant foliar application program to extend fungicide protection period until harvest.

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Methodology



Trials (2005-2007)

- 12 different fungicides evaluated
- Foliar sprays – high water, low water + irrigation
- Early applications (before disease) – 4 trials
- Late application (after disease) – 3 trials

Trials (2007-08)

- Bayfidan, Folicur, Filan, Switch +/- soil wetter
- Early applications (before disease) – 4 trials
- Late application (after disease) – 1 trial

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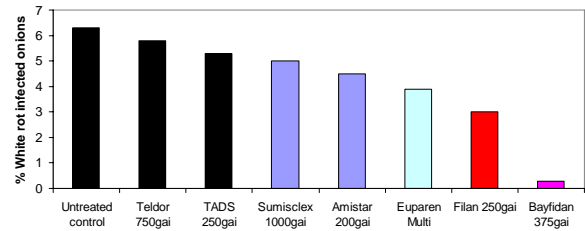
Early fungicide spray applications at Lockyer Valley, QLD



Winter onion - sown in July 2006
(at sowing & 50 days later)



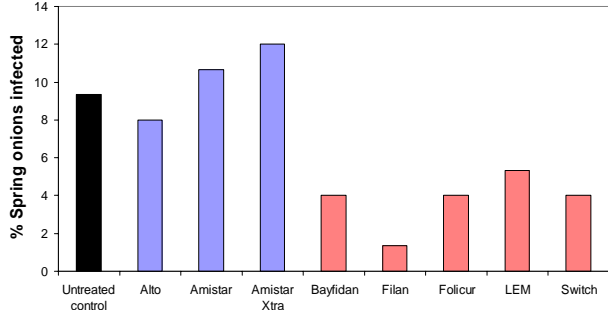
Reject onions due to white rot (% onions)



Screening other fungicides – on spring onions (2006/07)



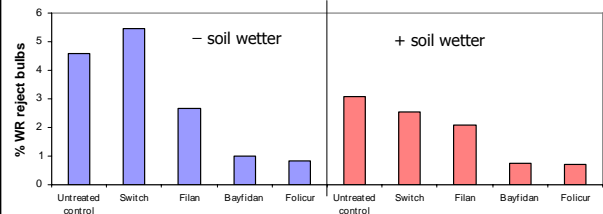
Pot trial with spring onions



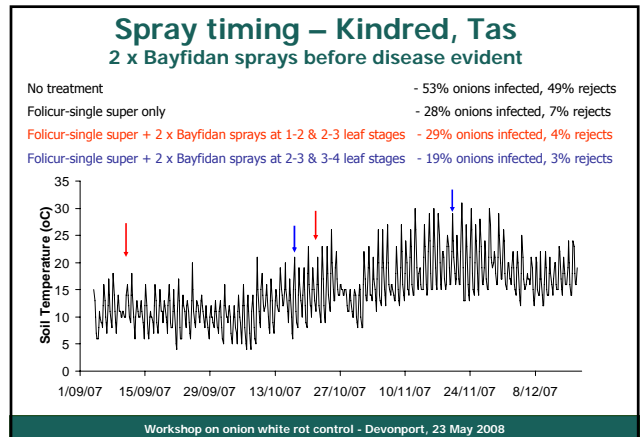
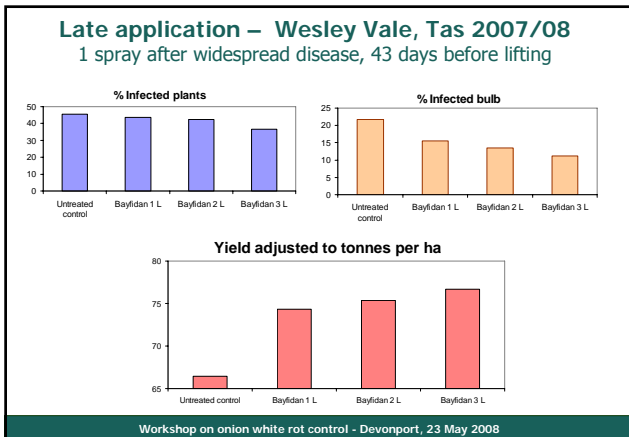
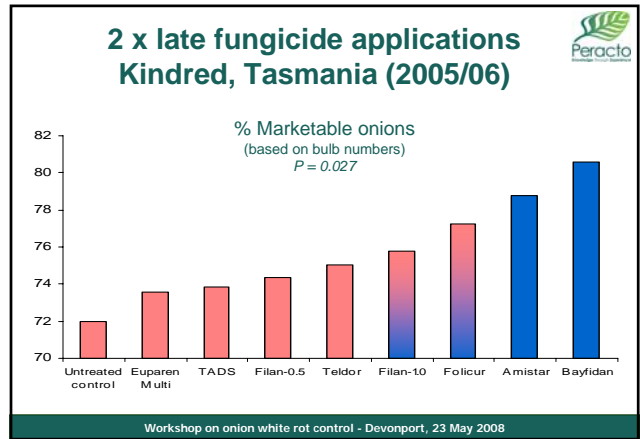
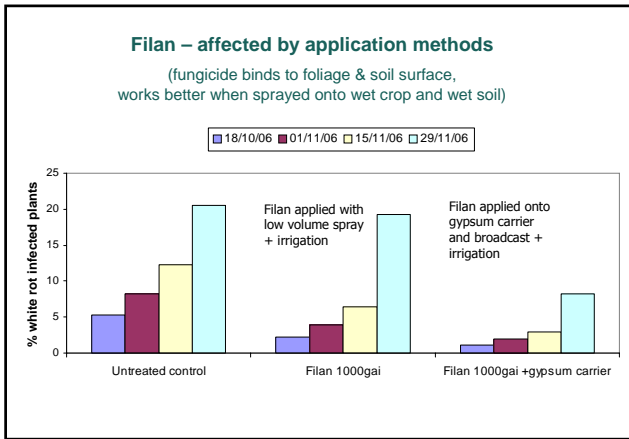
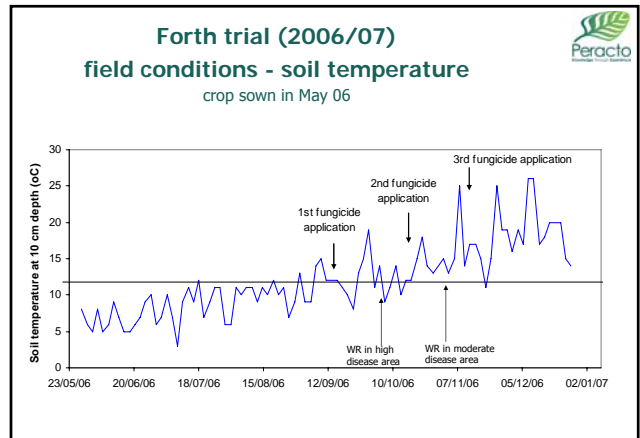
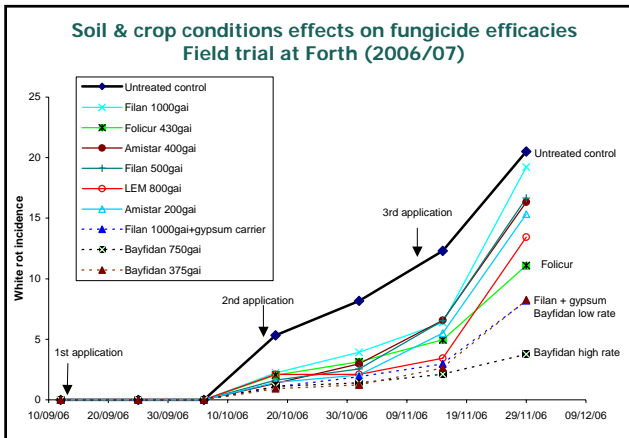
Early applications – Kindred, Tas (2007/08)

Folicur-single super + 2 spray applications before disease evident

Two foliar spray + irrigation applications



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Trial Outcomes - Summary



Fungicide options for post-plant applications

- Bayfidan – effective at 1.5 L/ha, no phytotoxicity
- Folicur – effective at 1.0 L/ha, no phytotoxicity
- Filan – depend on soil type, moisture, application method

- Timing & number of applications ?
- Soil temperature, crop stage ?
- Extend of control by the at sowing fungicide application ?
- Use of fungicide in carriers to improve application into topsoil?

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Options ?



Pre-plant treatments – reduce inoculum

- DADs, garlic powder, garlic granules ?

At sowing treatments (critical)

- Folicur-single super or Folicur-bentonite

Post-plant treatments

- Bayfidan at 1.5 L/ha
- Folicur at 1 L/ha
- Filan at 1 kg/ha
- Low volume spray + irrigation
- Apply with carrier ?

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Acknowledgments



- Susan Cross & Paul Florissen of Peracto for conducting the field trials
- Levy funding from onion growers and matching funds from the Australian government through Horticulture Australia Ltd
- Voluntary contributions from Syngenta Crop Protection Pty Ltd, DuPont (Australia) Ltd, Bayer Crop Science Pty Ltd, BASF Australia Ltd and Nufarm Australia Ltd



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