



Department of
Agriculture and Food



GRDC Grains Research &
Development Corporation
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Wheat variety response to marginal moisture in the early growing season

Bob French

24 February 2014





Early water deficit

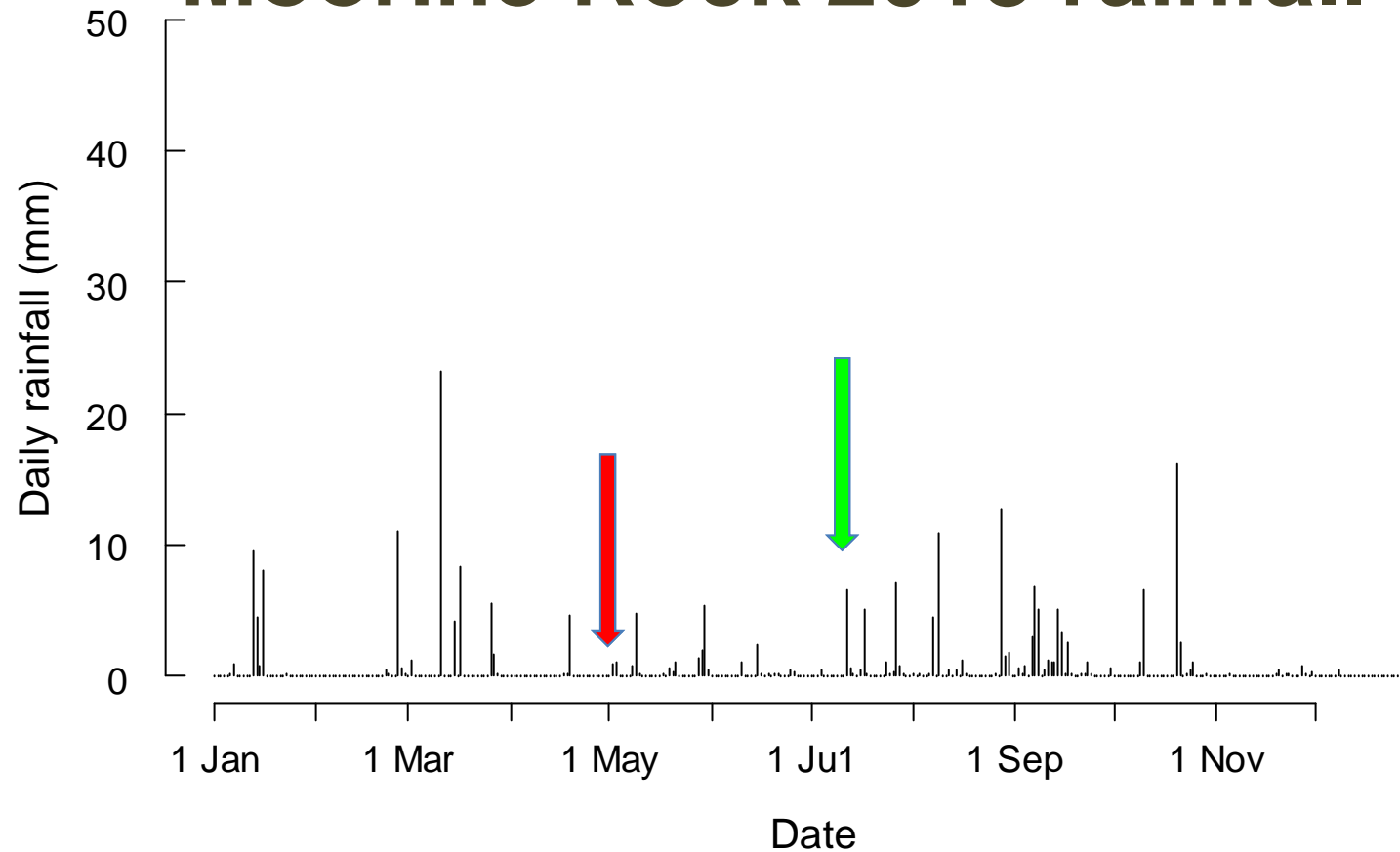
- Two types

Seedbed water deficit

vegetative water deficit



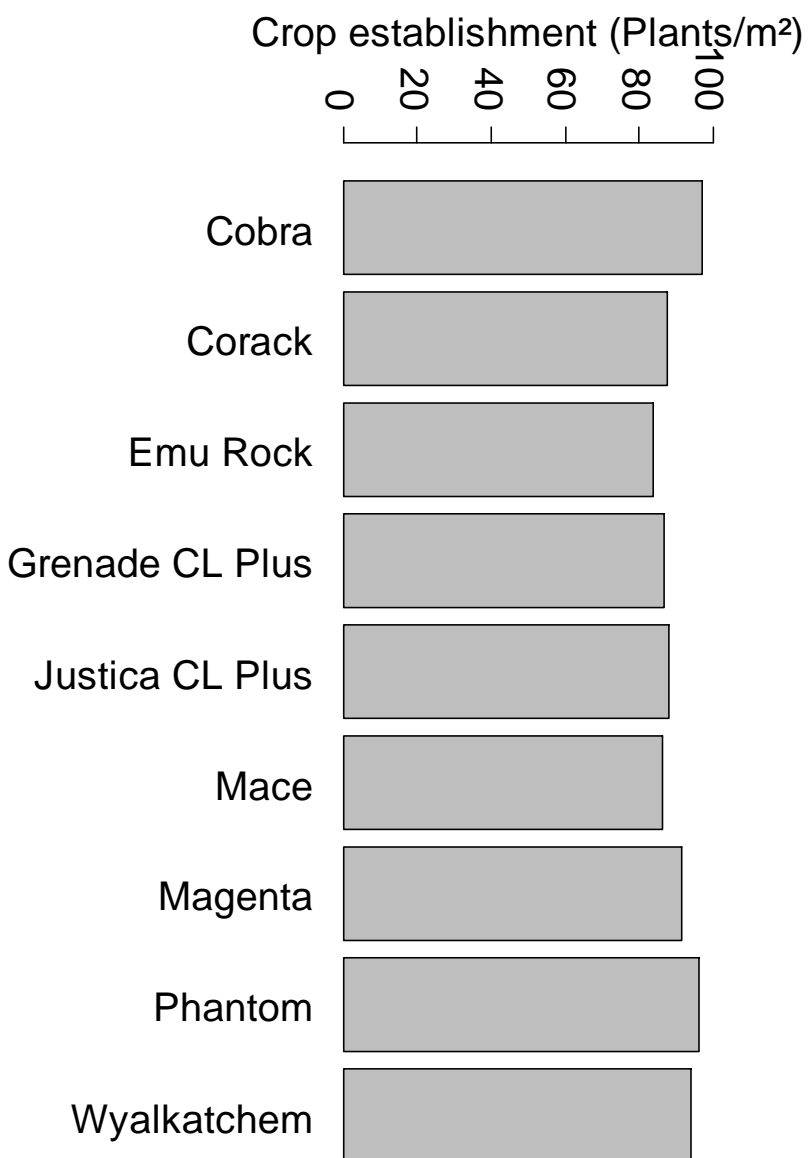
Moorine Rock 2013 rainfall



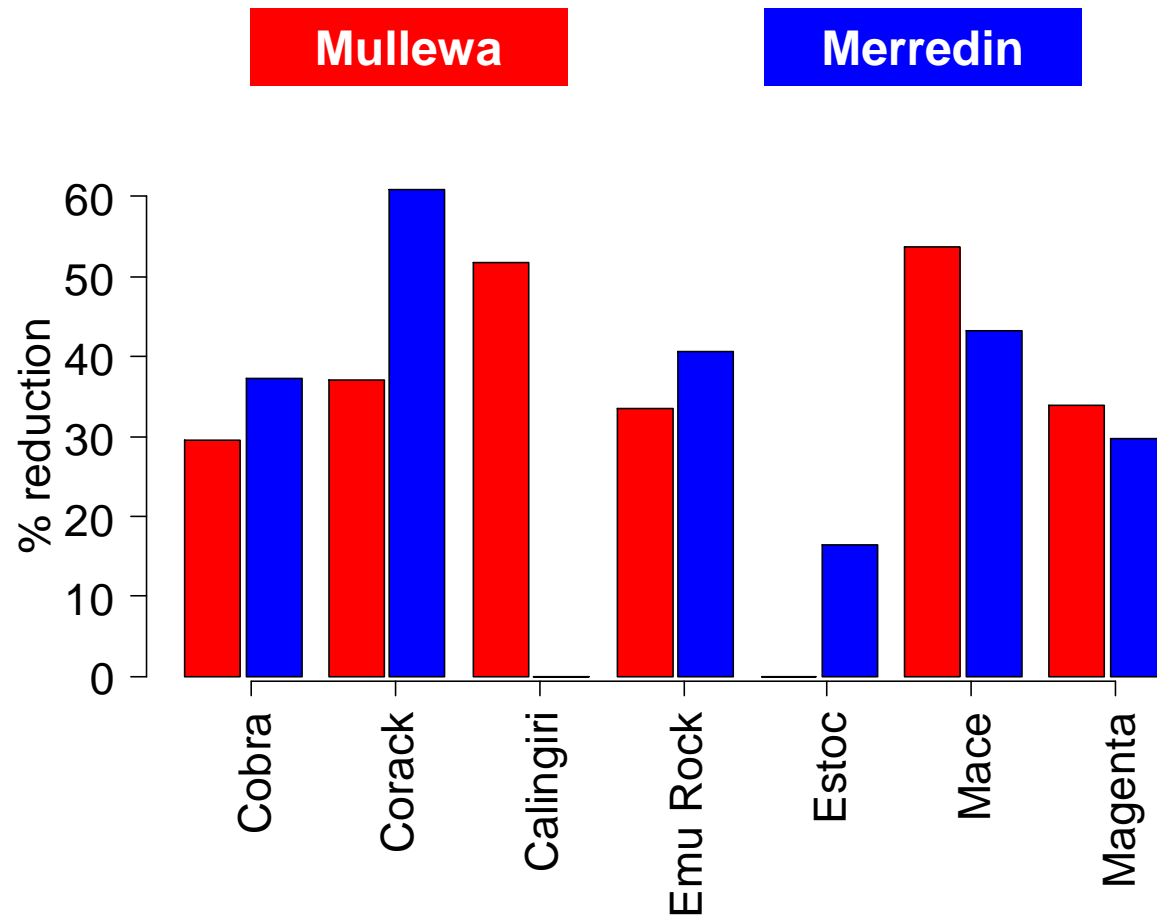




Wheat establishment after dry sowing



How deep sowing reduces wheat establishment (1)



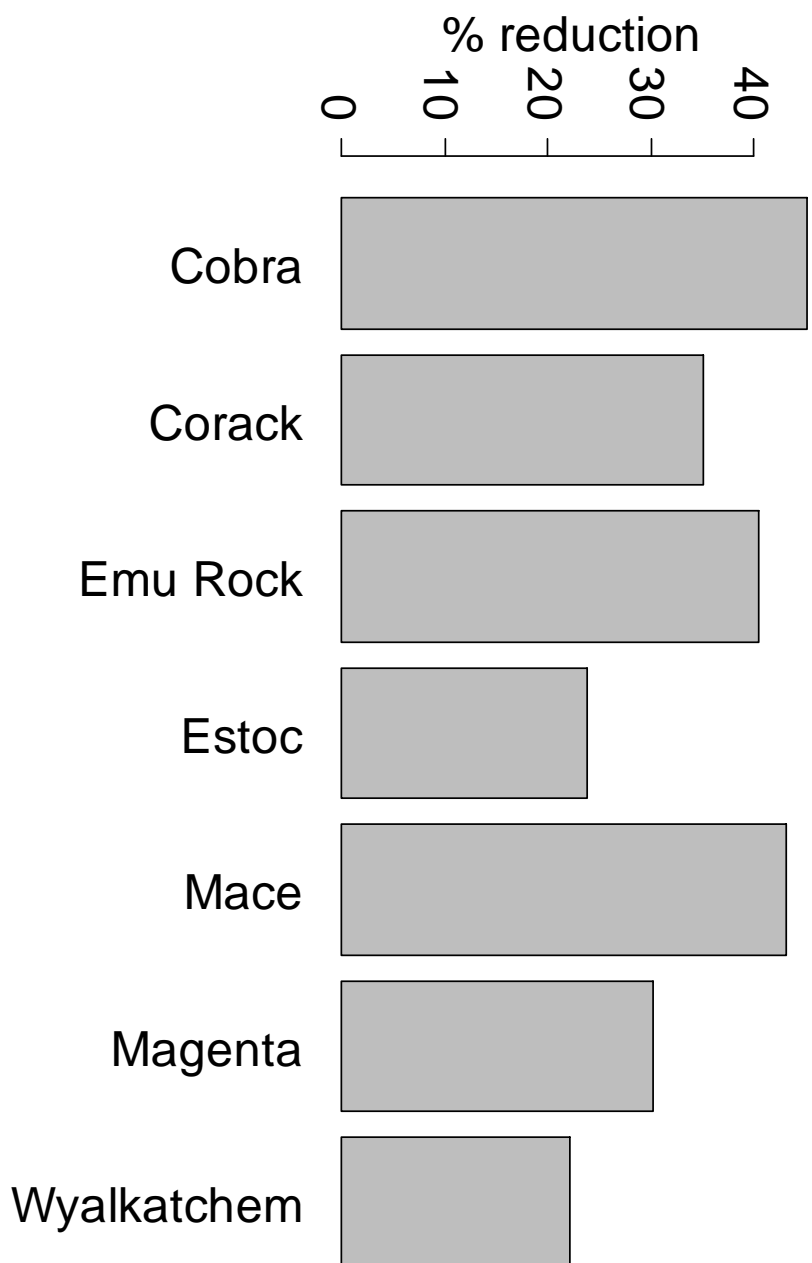
Deep (70 mm)



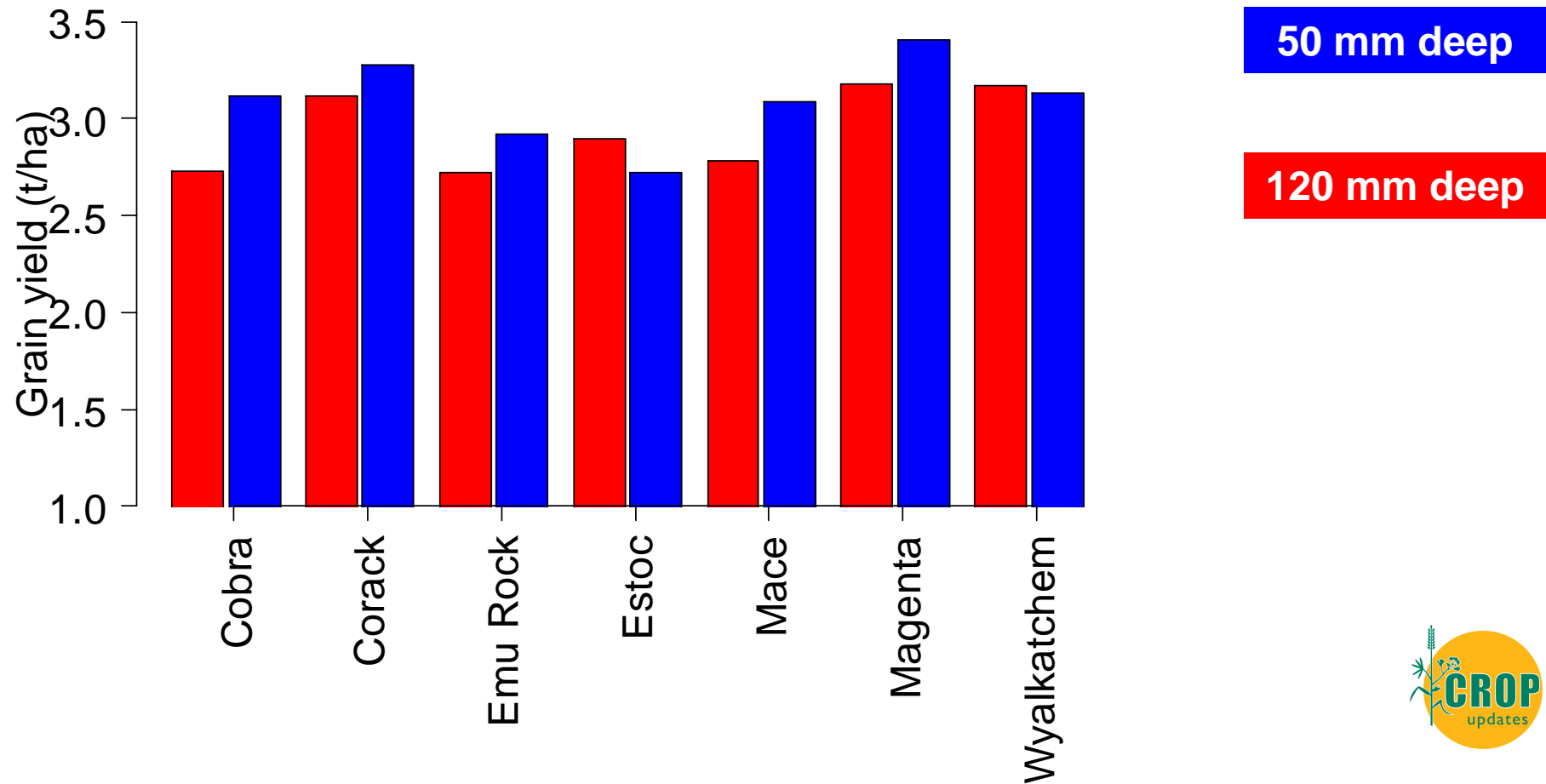
Normal (50 mm)



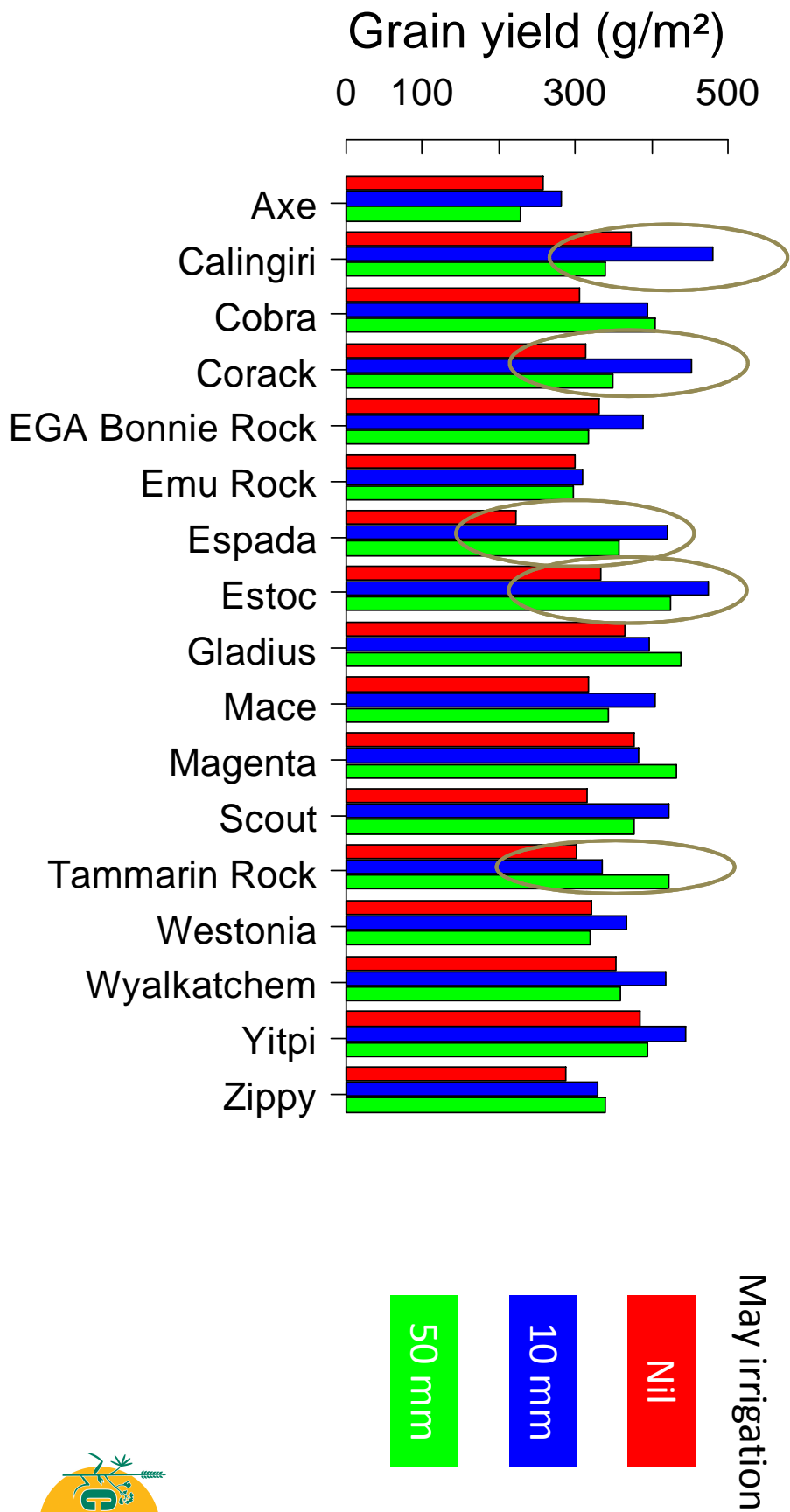
How deep sowing reduces wheat establishment (2)



How deep sowing affects wheat yield



Vegetative water deficit



Three key messages

- Wheat will survive in dry soil for a very long time. Commonly grown varieties in WA all survive equally well.
- When deep sowing to chase moisture remember wheat varieties differ in their ability to emerge from depth. This may or may not affect grain yield



Three key messages

- Water deficit during tillering can reduce grain yield and this varies between varieties. The size of the reduction depends on the type of seasonal finish.





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Questions?

Bob French

08 9081 3126

bob.french@agric.wa.gov.au

