

WA Crop Updates 2015 – Time of sowing focus session report

Co-ordinator – James Hunt, CSIRO

Presenters – James Hunt, CSIRO; Brenda Shackley, DAFWA; Andrew Fletcher, CSIRO; Roger Lawes, CSIRO; Ben Biddulph, DAFWA; Paul Telfer, AGT

Topics covered

Presenters delivered ~10 minute presentations followed by brief point-of-clarification questions. A panel discussion followed afterwards with attendees which numbered ~30.

James Hunt – opportunities for very early sowing with winter wheats (following on from plenary session). Modelling and preliminary trial results suggest that winter wheats can be used for sowing pre-ANZAC day in WA and that they should yield as well as or better than current practice of mid-fast spring wheats sown in May. This practice is currently limited by availability of commercial cultivars, but fast winter wheats with possible adaptation to WA are in the breeding pipeline and 2-4 years from release.

Brenda Shackley – opportunities for mid maturing spring wheats for sowing post-ANZAC day. Field trials demonstrated that highest yielding mid maturing spring cultivars (e.g. Magenta, Trojan) sown in early May could yield as well as or better than Mace sown at the same time, or its optimal window.

Andrew Fletcher – opportunities for dry sowing in WA. Reported simulation studies and field trial results showing benefits of dry-sowing on whole-farm average wheat yield. Results suggest that risk of catastrophic frost on dry sown crops not that much greater on wet-sown crops. Benefits of dry sowing increase with time taken to plant farm wheat area.

Roger Lawes – case for switching to faster maturing cultivars within main-season window once sowing is delayed. Reported results of time-of-sowing trials sown from early May to late June that demonstrated that there was very little to be gained from switching to faster maturing cultivars once sowing was delayed. Highest yielding cultivars tended to be highest yielding at all times of sowing within the main-season (early May onward) window.

Ben Biddulph – weighing up frost risk when choosing time of sowing x cultivar combinations. Reported frost tolerance rankings, but stressed that there was very little difference between cultivars and that frost risk was best managed by using frost tolerant species such as barley, and appropriate cultivar x TOS combinations that minimised frost risk during key reproductive periods.

Paul Telfer – weighing up heat risk when choosing time of sowing x cultivar combinations. Gave experimental results demonstrating how damaging high temperatures are for yield. Reported efforts to screen germplasm for heat tolerance, but stressed that there was little variation and currently favoured cultivars are relatively good.

General discussion –

1. Point raised that all trials presented were on deep sands. No data for duplex soils with restricted rooting depth, particularly in higher rainfall areas.
2. Greatest difficulty is experienced in Lakes district/Great Southern where frost is prevalent

3. Growers in Great Southern continuing to use Yitpi for its late/stable flowering time. 'Yitpi replacements' have failed to deliver appreciable improvements to-date. Hard for breeders and agronomists to evaluate slow maturing types due to limited opportunities for early sowing of trials. Need for more trials established with irrigation suggested.
4. Growers have responded to threat of frost and lack of suitable wheat cultivars by moving barley and canola to the first part of the sowing window.