

Farm management that affects fibre quality

It is important to manage for quality throughout the season. Fibre development responds directly to the environment, management and stresses. Correct variety choice for the growing region combined with reduced stress management will optimise fibre quality. Stress at one point in a season may have indirect consequences on fibre quality. For example, excess nitrogen rates or events that cause late regrowth can reduce fibre quality by having fibre development occurring in cooler weather (and reduce micronaire).

Irrigation

Good plant moisture status is critical in the first 20 days after flowering to allow potential fibre elongation rates. With about five weeks of effective flowering and another three weeks to complete fibre elongation, a total of eight weeks without stress is required to have uninterrupted fibre length in all bolls. Healthy soil and irrigation scheduling to take account of soil water holding capacity and evaporative demand are key approaches to managing plant moisture status.

Crop growth habit

A uniform set of bolls is more likely to provide uniform fibre. Late flowering and especially regrowth will cause problems in fibre properties and indirectly with grade. Agronomy should aim to produce a crop which optimises plant size and sets bolls when possible. The application of large quantities of mepiquat chloride (Pix) at the last effective square has become common practice in many regions. The aim is to reduce top growth of the plant and minimise plant resources going into fruit that is unlikely to be mature at harvest time. Pix is not likely to have a negative effect on fibre quality and may help reduce neps in late crops that are going to produce bolls outside the normal harvestable range.

Defoliation

The type of defoliation product is unlikely to impact on fibre quality. However the timing of defoliation can have a big impact on fibre quality. Early defoliation can cause a significant reduction in all desirable fibre properties (mainly in the upper top quarter of bolls) and also increases the number of neps.

Insect management

Increased resistance to aphicides potentially leads to an increase in late season aphid infestations. This, together with an increase in whitefly could result in sticky cotton. Sticky cotton is a highly undesirable quality characteristic. It leads to processing difficulties, incurs penalties and impacts on the spinners' confidence in the quality of Australian cotton.

Thank you to Susan Maas and Dr Michael Bange for this information.

Ergot fungus in sorghum

Some sorghum crops on the Downs have been infested with the Ergot fungus. This fungal disease reduces yield through poor seed set and causes harvesting difficulties due to sticky honeydew on seed heads. Sorghum contaminated with ergot is toxic to livestock.

Surveys have indicated that the fungus has come in on prevailing winds and most crops are generally only affected on the edge of the fields. With no fungicide registered to control the fungus, good management is needed to reduce grain contamination and prevent further spread.

Management options include; spraying out badly infected crops with glyphosate, slash infected rows on the edge of the field or harvest these last.

Irrigation management grants

For those who have not yet applied – this is a reminder that you may be eligible for an irrigation management grant to implement water management strategies to manage short-term reduced water allocations.

The grant can be used for a range of activities including: reconfiguring irrigation systems, laser levelling, computer software, piping and pumps. Further information and application forms can be accessed from the link provided.

http://www.centrelink.gov.au/internet/internet.nsf/payment/s/irrigation_mgt_grant.htm

Reminder – Benchmarking water use in the cotton industry

It is not too late to become part of the Cotton CRC water team benchmarking process. To be involved you need to have grown cotton in the 2006/07 season. Participating growers will receive reports detailing their on-farm water use and be able to benchmark their farms against the rest of the region and industry.

If you are interested in helping to establish water use benchmarks for the cotton industry and looking at the water use benchmarking tool WATERtrack RAPID or to gain more information please contact Jenelle Hare.

Whitefly in cotton

There have been a number of reports of whitefly infestations in cotton. The whitefly has been identified as the greenhouse whitefly which is generally not a significant pest of cotton.