Cotton Catchment Communities CRC

COTTON *TALES*

Macquarie Valley

Sal Ceeney, ☎ 04 59 189 771 💻 ms.ceeney@gmail.com

2011/12
No.1
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2011/12 Extension Package

The Australian Cotton Industry Development & Delivery Team have recently put together a number of updated publications for the coming season:

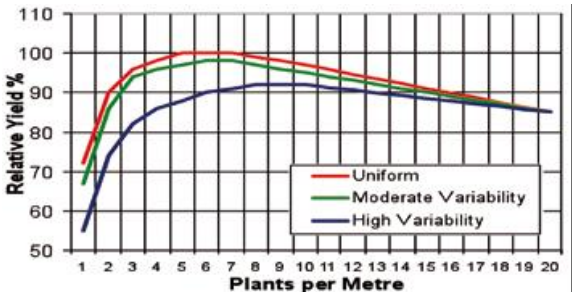
- 2011 Australian Cotton Production Manual – *let Sally know if you would like a copy.*
- Pest & Beneficials In Australian Cotton Landscapes (ID guide) – *order a hard copy on Cotton CRC website or contact AgnVet or CGS.*
- 2011/12 Cotton Pest Management Guide *(to be delivered with Sept CRDC Spotlight) or let Sally know if you don't receive one.*

These publications along with fact sheets & mobile phone friendly weed and insect ID guides are all available from www.cottoncrc.org.au

Planting Considerations

With planting time fast approaching it is important to consider what the essentials are to help ensure an ideal start to the season. Optimising yield requires an evenly spaced plant population. The figure below shows impact of plant stand uniformity on potential yield.

Relative yield potential at a range of Plant Stand Uniformities. (G Constable, 1997) 2012 Cotton Production Manual p42



Soil Temperatures

Given that temperatures have cooled over the last week, it might pay to check soil temperatures before commencing planting. Ideal soil temperatures for cotton establishment are 16°C - 28°C. It is recommended that cotton sowing does not occur until minimum soil temperatures at 10cm exceed 14ºC at 9am for 3 consecutive days. *Note: 14ºC at 10cm depth will equate to approximately 16-17ºC at seed sowing depth*.

Disease management

Sowing below ideal soil temperatures and cool weather conditions can increase the incidence of seedling diseases such as rhizoctonia, pythium; and fusarium by slowing germination and emergence. Plant into well-prepared firm, high beds to optimise stand establishment and seedling vigour.

Planting Rate and Depth

An evenly spaced plant population of 5-13 plants/m is considered optimal. In determining how much seed you need, also consider the seed size & seed quality (germination) for the variety and how many seeds you expect to survive.

During the planting operation, regularly check seed depths and the condition of soil around the seed. Planter seedling rates should be calibrated as well as granular insecticide rates if used. Avoid planting into fertiliser or herbicide bands.

If planting into moisture, seed should be placed into moist soil with good seed to soil contact so that moisture is rapidly imbibed into the seed.

Planting depth should rarely exceed 5cm unless chasing moisture. Planting deeper than 5cm may slow emergence and decrease emergence percentage.

Alternatively, planting shallow (<2cm) may also increase emergence variability as the shallow soil may dry back quickly and emerging seedlings may become isolated from the moisture. This is particularly an issue in soils prone to cracking.

If planting dry, seed should be placed shallow (approx. 2cm) as during the irrigation process seeds can drop deeper, especially in cloddy soils.

Management of weeds and volunteers

Ideally plant into fields free of weeds and volunteers. Volunteers that emerge close to planting are still a pest & disease risk as they may host insects such as aphids.

In irrigated cropping, planting into moisture will give you an opportunity to flush up weeds and volunteers and spray them out before cotton emerges. However the use of herbicide tolerant varieties will allow for more flexibility around weed control in fields that are planted dry and watered up.

Before planting, check field herbicide use records particularly in fields that may not have grown cotton for some time. Table 23-25 in 2012 Cotton Pest Management Guide (available on Cotton CRC website) covers herbicides with plant backs to cotton. Also consider how you might rotate herbicide mode of action groups to reduce your risk of herbicide resistance.

Soil Insects

Wireworms are the key insect pest at cotton planting/ seedling emergence. Spring populations are generally higher in fields with large amounts of previous crop stubble, weeds or following a summer crop so preventative measures may be warranted in fields with these conditions. Wireworms are difficult to sample but are generally found at the top of the intersection of wet and dry soil. Cutworms can also cause damage to young seedlings post emergence and are more likely to be found in fields that have weeds present, especially in lower lying areas where soil remains damp.

Bollgard II Planting Window

Macquarie: Closes Nov 15th.