

## 8 GOLDEN RULES OF DRYLAND COTTON

#### 1. PLAN AND PREPARE IN ADVANCE

- · Service all machinery, have them ready to go
- · Investigate ginning and marketing organisations to process and sell your cotton crop
  - There are many options available to sell your cotton.
  - Remember that both the lint and the cotton seed can provide lucrative returns if marketed wisely.
- · Have consultants and contractors (e.g. picking, spraying, farming) organised well in advance of needing them on farm.
  - Some operations in the cotton system, such as planting, are time sensitive, so you may only get one opportunity in the desired window.
  - A good cotton consultant will assist you with the management of your cotton crop. Their knowledge will assist crop management to ensure the crop is managed without stresses throughout the season.
  - Cotton consultants can help with forecasting crop requirements, variety selection, planting, fertiliser requirements and application, irrigation timing, insect and weeds scouting and control and crop defoliation.
  - Even the most experienced cotton growers utilise the services of cotton consultants. We would not recommend growing cotton without the support of a consultant. A list of cotton consultants can be found at Crop Consultants Australia (www.cropconsultants.com.au).
  - Boom spray hygiene is critical prior to spraying cotton. Cotton is particularly sensitive to phenoxy herbicides so it's important to follow effective **clean down procedures**.
- Inform neighbours of your cotton growing plans this season, to alert them of the damage that can be caused to cotton crops from phenoxy herbicide (also known as 2,4-D and MCPA) drift.
  - For more information visit myBMP (<u>www.mybmp.com.au</u>) and SataCrop (<u>www.satacrop.com.au</u>).

#### 2. KNOW YOUR SOIL TYPE

- Plant available water capacity (PAWC) > 180 mm in top 1.5 m of soil
  - Know how big the bucket of soil moisture is a vital key to achieving a successful cotton crop.
  - This requirement may change depending on rainfall reliability and forecast.
  - This can be used as a bank of moisture which can be vital in years of below average rainfall.
- · Know the nutrient status, location and availability within the profile
  - If fertiliser is required, it will need to be applied prior to planting. There is limited opportunity to apply fertiliser to areas where it will be utilised post establishment of the crop.
  - Many dryland cotton growers do not apply fertiliser. They utilise the soil's natural pool and residual fertiliser from previous rotation crops.
  - The large tap root of the cotton plant enables it to explore the soil profile to reach fertiliser and nutrients outside the range of other crops.



#### 3. PLANT ON A FULL MOISTURE PROFILE

- · Give the dryland cotton crop best chances of success
  - "Plant dryland cotton on soil moisture profile, not price." If the soil moisture profile is not full then the chances of a successful crop are greatly diminished, regardless of the price.
- · · Have adequate soil moisture reserves to allow for 2-3 months without rainfall
  - In many instances it will take 60-70 days before yield starts to be generated. A good insurance policy is to have a reserve which will enable flowering to be reached even if no rain is received.
  - In summer dominant rainfall areas January and February are the highest rainfall months. Rain falling in these months will boost yield potential significantly. However, it is important that the plant enters this period growing healthily so it can capitalise on summer rain events.

#### 4. PLANTING INTO STANDING STUBBLE

- Cotton is not the most vigorous seedling and early in the crop's life it is a poor competitor. Planting into standing stubble has advantages to the dryland cotton system through:
  - Better environment for establishment.
  - An extended planting opportunity.
  - Improved efficiency of rainfall capture.
  - Providing a home for beneficial insects.
  - Reduced sandblasting.
- · Refuge planning is also a critical part of the resistance management plan
  - A refuge is a block or strip of crop without the Bt gene. The purpose of the refuge area is to assist in preventing pests from developing resistance to the technology.
- As part of an Australian cotton industry resistance management plan you are required to plant a refuge area, which will vary depending on the amount of cotton and the technology grown ie. Bollgard II® or Bollgard® 3 and the species of the refuge area grown.
- Information on the purpose of and the types and requirements for your refuge crop can be found by visiting <a href="www.bollgard3.com.au">www.bollgard3.com.au</a>/refuge-calculator.

#### 5. HAVE A PLAN FOR WEEDS

- Roundup Ready Flex® dryland cotton can be sprayed over-the-top with Roundup Ready® PL Herbicide with PLANTSHIELD® Technology or Roundup Ready® Herbicide with PLANTSHIELD® to clean up fields with weed issues, especially grass weeds
- · Know your summer weed spectrum
  - Start the season with a clean fallow.
  - Consider any herbicide plant back restrictions.
  - Do not rely solely on glyphosate, utilise residual herbicides to support Roundup where required. The <u>Roundup Ready Flex</u> <u>Cotton Weed Resistance Management Plan</u> and <u>Roundup Ready Flex Cotton Weed Management Guide</u> by Bayer will provide further information.
  - Act on early season weeds when they are small.
  - Ensure cotton is fully destroyed post harvest before it becomes a woody weed. Additional information is available from Bayer on <u>volunteer and ratoon cotton management</u>.



# 6. USE AN APPROPRIATE VARIETY AND ROW CONFIGURATION COMBINATION

#### · Variety choice

- Obtain the relevant CSD Grower Agreement, and Bayer Technology User Agreement (TUA) if growing cotton containing Bayer insect management and/or herbicide tolerance technologies.
  - > Cotton planting seed within Australia cannot be purchased without the appropriate agreements being in place as a requirement of government regulations.
  - > These agreements can be obtained from your local cotton seed supplier (CSD Agent, Bayer Technology Service Provider (TSP)) who will have further information on how to order seed.

#### Select variety based on:

- Yield in your area and production type.
- Disease tolerances.
- Resilience in fibre quality especially in the toughest of seasons.
- Technology choice.

#### There are also special offers provided by both CSD and Bayer which will also be of interest. (www.csd.net.au, www.cottonchoices.com.au)

- Your consultant will be able to assist you in making an educated decision on what <u>variety</u> and technology mix will suit your specific situation.
- Cotton Choices® provides grower flexibility by allowing Bollgard® 3, Bollgard II® and Roundup Ready Flex® growers the ability to choose the best payment option for their technology fees to suit the financial and production risks of their farm.

#### · Match seed treatment choice to expected disease and early season insect pressure

- Your consultant will be able to assist you in selecting a suitable seed treatment combination.

#### · Plan a refuge area for your crop

- As part of the Australian cotton industry resistance management plan, if you are growing cotton containing one of Bayer's insect management technologies, you are required to plant a refuge area which will vary depending on the amount of cotton grown refuge species and the technology choice made.
- Information on the purpose of, the types and requirements for the refuge crop can be found by referring the <u>Bollgard 3</u> <u>Resistance Management Plan (RMP)</u> and the Bollgard II Resistance Management Plan (RMP) in your TUA. You can also calculate your refuge requirements using the Bollgard 3 refuge calculator.

#### · Row configuration

- There are many row configurations for planting dryland cotton. These can vary depending on wheel spacing, soil type and PAWC, rainfall reliability and forecast.
- It it important to remember that the row configuration must suit your system and:
  - > You need to have access to equipment to plant it.
  - > And pick it.
- Research what planting configurations other dryland cotton growers are using and speak with your consultant to decide which configuration best suits your system.
- Row configuration can be used as a risk management tool, especially in low summer rainfall zones, by:
  - > Reducing production costs.
  - > Enlarging the bucket of stored soil moisture available to each plant (i.e. less plants per given area).
  - > Provide the best chance of high fibre quality in tough seasons.



#### 7. ESTABLISH AN EVEN, UNIFORM AND HEALTHY PLANT STAND

- · Plant once and do it right
  - Ensure the planter is ready to go when required.
    - > Check planter maintenance, depth, speed and closing wheel pressure (www.faststartcotton.com.au).
    - > Have seed on farm ready to start planting.
    - > Consult the CSD Traffic Light forecasting tool to help achieve the best possible germination (www.csd.net.au/green-light-for-planting, www.csd.net.au/soil-temperature).
- • Establish a healthy and uniform plant population
  - Aim for 6-8 plants/m established.
  - Gaps > 50 cm will impact on yield which will in turn affect the maturity of the crop. Gaps will be magnified in wider row configurations.
- Increase planting rate or consider a variety change if conditions at planting are less than ideal

#### 8. GET VALUE FROM POST PICKING OPERATIONS

- Effectively kill cotton to reduce ratoons and volunteers
  - These will become persistent woody weeds in fallow and subsequent crops if not successfully controlled.
- Consider your pupae busting requirements as part of the Bollgard II and Bollgard 3 Resistance Management Plan (RMP)
- Explore options for phosphorus and potassium fertiliser
- · Explore options for renovation of wheel tracks and land forming if required





### For more information visit www.acresofopportunity.com.au

#### **Cotton Seed Distributors**

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'Shenstone' 2952 Culgoora Road Wee Waa, NSW 2388

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www.csd.net.au

**Dalby distribution centre** 

Corner Edward and Napier Streets

Dalby, QLD 4405

**Phone** (07) 4662 6050

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