



# 10 POINT PLAN FOR IRRIGATED COTTON

## 1. PLAN AND PREPARE IN ADVANCE

- **Complete field work and ground preparation early**
  - This will enable a smooth transition into the planting operation and allow the maximum amount of time to accumulate moisture into the soil profile.
- **Create a firm, consolidated seed bed**
  - Planting is a critical operation in the cotton farming system and every effort should be made to ensure that the seed is given every opportunity to establish ([www.faststartcotton.com.au](http://www.faststartcotton.com.au)).
- **Service all machinery, pumps and ring tanks to ensure all are in good condition**
  - This is good farming practice and should be conducted for any crop let alone cotton. Some operations within the cotton farming system are timing sensitive and ensuring that machinery breakdowns do not limit production.
- **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 for planting**
  - A good cotton consultant will assist you with the management of your cotton crop. Their knowledge is in ensuring that 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 ([www.cropconsultants.com.au](http://www.cropconsultants.com.au)).
- **Inform neighbours of your cotton 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) drift**

## 2. APPLY FERTILISER IN A TIMELY MANNER

- **Budget nutrient requirements on soil and crop tests, and on crop requirements and yield potential**
  - Uptake graph through season.
  - Nutrient uptake and removal for different yields.
- **Apply fertiliser in a way to boost nutrient use efficiency**
  - Your cotton consultant can give you advice on the rate, product, timing and application method.
  - For nitrogen, many within the industry use 60% up front and 40% in-crop, utilising many different application techniques.
- **Don't let nutrition be a yield limiting factor**
  - Getting your crop nutrition right is essential for maximising cotton yield and fibre quality. Careful monitoring and management of nutrient levels are vital to prevent inadequate nutrition or over-fertilisation, both of which can impact on profitability.





### 3. SELECT THE RIGHT VARIETY AND SEED TREATMENT

- **Obtain the relevant CSD Grower and Bayer (trading as Monsanto Australia Pty Ltd) Technology User Agreement (TUA)**
  - Cotton planting seed within Australia cannot be purchased without both these agreements in place as a requirement of the government regulations.
  - The agreements can be obtained from your local cotton seed supplier (CSD Agent, Bayer (trading as Monsanto Australia Pty Ltd)) ([www.monsantoglobal.com/global/au/products/Pages/cotton-technology-service-provider-network.aspx](http://www.monsantoglobal.com/global/au/products/Pages/cotton-technology-service-provider-network.aspx)) 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.
  - Technology choice.
- **There are also special offers provided by both CSD and Bayer which will also be of interest. ([www.csd.net.au](http://www.csd.net.au), [www.cottonchoices.com.au](http://www.cottonchoices.com.au))**
  - Your consultant will be able to assist you in making an educated decision on what variety 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.
- **Plan a refuge area from your crop**
  - 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 grown and the technology choice made.
  - Information on the purpose of, the types and requirements for the refuge crop can be found at ([www.bollgard3.com.au/refuge-calculator](http://www.bollgard3.com.au/refuge-calculator)).

### 4. PLANTING AND ESTABLISHMENT

- **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](http://www.faststartcotton.com.au)).
    - Have seed on farm.
    - Consult the CSD Traffic Light forecasting tool to help achieve the best possible germination ([www.csd.net.au/greenlight](http://www.csd.net.au/greenlight), [www.csd.net.au/soil\\_temperatures](http://www.csd.net.au/soil_temperatures)).
  - Establish a healthy and uniform plant population.
    - 8-12 plants per linear metre is ideal.





## 5. WEED CONTROL

- **Start the season with a clean fallow**
- **Consider any herbicide plant back restrictions**
- **Manage weeds using an Integrated Weed Management plan (IWM)**
  - It is important that weeds are managed with an IWM plan to reduce weed seed set and future weed pressures. The Roundup Ready® Weed Resistance Management Plan and Roundup Ready Weed Management Guide by Monsanto will provide further information.
  - Consult the Roundup Ready Flex® Cotton Weed Management Guide for clear recommendations for weed control practices in a Roundup Ready Flex cotton crop. The guide includes a range of herbicides which offer different modes of action throughout the season, reducing the risk of glyphosate resistance developing on your farm and saving you time and money in the future.
  - The Roundup Ready Flex Cotton Weed Resistance Management Plan details strategies that can be implemented to minimise the risk of glyphosate resistance developing in weeds on-farm.
- **Act on early season weeds when they are small**
- **Ensure cotton is fully destroyed post harvest as then it becomes a woody weed**
  - Additional information is available from Bayer on volunteer and ratoon cotton management.

## 6. IRRIGATE TO MINIMISE PLANT STRESS

- **Engage your consultant to help formulate a water budget, and to assist in scheduling irrigation timing**
  - First irrigation is timed to maximise root expansion and crop growth at first flower.
  - Last irrigation is timed to ensure that the crop is mature and to have the soil profile dry at defoliation.
- **Do not let irrigation be a limiting factor**
  - Factor in hot seasons.
  - Understand the capacity of your system and how quickly you can irrigate the crop.

## 7. MONITOR TO MANAGE THE CROP

- **Utilise your consultant to monitor crop growth and progress, insect pest and disease control (if required)**
  - Cotton is a responsive crop to manage. Growers are able to monitor and manipulate the cotton plant to maximise yield and ease of management.
  - Critical aspects which your consultant can assist with are growth rates, plant height management and fruit retention.
- **Aim to have the crop at critical CSD Ambassador Network snapshots for critical times**
  - Critical times in the crops development are at establishment, first flower through to cut out.
- **Utilise plant growth regulators to manage excessive growth**
  - Excessive rank growth is inefficient, and can lead to boll rots, increase defoliation costs and reduced penetration of insecticides and fungicides.



## 8. FLOWERING TO CUT OUT IS A CRITICAL TIME

- **95% of the crop yield is set during this time**
  - Hosting a happy plant throughout the entire growth cycle is vital, but during the flowering period, you should aim to:
    - Prolong the flowering period for as long as seasonal constraints allow.
    - Ensure fruit retention and accumulated numbers are tracking to the desired target.
- **The key is to keep the plant happy is through minimisation of:**
  - Moisture stress, irrigation scheduling and timing.
  - Nutritional stress.
  - Weeds, insects and disease.

## 9. HARVEST/PICKING

- **Do not defoliate too early - ensure the crop and fibre is mature**
  - Your consultant can assist with the timing of the defoliation operation (4 NACB or 60% open).
  - Pick on time and without delay.
- **Do not pick if seed cotton moisture is greater than 12%. This can cause ginning fibre quality issues which could lead to discount penalties**

## 10. POST CROP CONTROL

- **Ensure your crop is destroyed post picking**
  - Cotton can regrow into ratoon plants post defoliation/picking and can act as:
    - A weed, robbing moisture and nutrients.
    - A bridge to host insect pests and diseases.
    - Resistance build up.
- **For more information on ratoon and volunteer cotton control, view Bayer's Resistance Management: Control of volunteer and ratoon cotton biotech topic**
- **Conduct a pupae busting operation, if required under your Bollgard II® and/or Bollgard® 3 resistance management plan. For more information visit the Bollgard 3 website**



**For more information visit [www.acresofopportunity.com.au](http://www.acresofopportunity.com.au)**

### **Cotton Seed Distributors**

#### **Wee Waa office**

'Shenstone'  
2952 Culgoora Road  
Wee Waa, NSW 2388  
**Phone** (02) 6795 0000

#### **Dalby office**

Corner Edward and  
Napier Streets  
Dalby, QLD 4405  
**Phone** (07) 4662 6050

### **Monsanto Australia Pty Ltd**

Level 12, 600 St Kilda Road  
Melbourne, VIC 3004  
**Phone** (03) 9522 7122

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[au.smarterfarming.info](http://au.smarterfarming.info)