

Roundup Ready® Cotton Crop Management Plan

The Monsanto Roundup Ready Cotton Crop Management Plan is a legal requirement for the approval of Roundup Ready cotton and is designed to protect the sustainability of the Roundup Ready technology.

The CMP is made up of two key components being,

1. Roundup Ready cotton Stewardship Program
2. Integrated Weed Management Strategy (IWMS)

1. Roundup Ready Cotton Stewardship Program

The Stewardship Program aims to ensure that all people involved in the growing and decision making for Roundup Ready cotton crops have a good understanding of the legal requirements, agronomic considerations and application options.

The Stewardship Program involves five parts as listed below.

- Training and Accreditation
- Communication
- Compliance and Auditing
- Adverse Event Reporting
- Non Compliance

1.1 Training and Accreditation

The following stakeholders must complete and pass the Roundup Ready Cotton Accreditation Program before they can purchase seed:

- The Technology Service Provider (TSP), at least one employee from a TSP outlet must have passed the accreditation course.
- The grower and people responsible for making the weed management decision in Roundup Ready Cotton on farm.

The accreditation course includes a training day and a Technical Manual, which covers most aspects of managing Roundup Ready Cotton. A copy of the Technical Manual will be supplied at the accreditation course and is also available upon request. As applicable, accredited persons will receive relevant updates and amendments to the Technical Manual as they become available.

It should be noted that agronomists have a duty of care to ensure that all recommendations made are in accordance with the CMP, Technical Manual, Roundup Ready herbicide label and Roundup Ready cotton seed label.

1.2 Communication

The CMP will form part of the Technology User Agreement (TUA) and the relevant details for growers documented in the Terms & Conditions document. Details of the CMP are incorporated into the accreditation course or communicated separately to relevant growers as required.

1.3 Compliance and Auditing

The approval of Roundup Ready cotton is handled by the Office of the Gene Technology Regulator (OGTR) and the use of Roundup Ready herbicide is approved by the Agricultural Pesticides and Veterinary Medicines Authority (APVMA). These regulatory bodies require detailed reports confirming the successful management of new technologies such as Roundup Ready.

The information for these reports is captured via 2 audits, which are undertaken during the Cotton Growing Season, and it is the results of these Audits which form the basis of the compulsory regulatory reports that Monsanto is required to submit; the audits are outlined below:

(i) Planting Audit – Technology Service Providers (TSPs)

The TSP is responsible for completion by the required date, as set down in the TUA. The Information required includes:

- Number of hectares sown
- Location of Roundup Ready Cotton
- Date of sowing
- Only accredited TSPs will be able to sell Roundup Ready Cotton.
- TSPs cannot sell Roundup Ready cotton planting seed to a grower unless the grower has an accreditation number and current TUA and must record these details, and submit to Monsanto.
- TSPs are required to complete the Planting Audit by November 30th 2010.
- TSPs can make alterations to the Planting Audit until December 15th 2010 before growers are charged.
- TSPs are required to notify Monsanto if they identify any compliance issues.

(ii) Weed Management Audit - Technology Service Providers (TSPs)

The Weed Management Audit must be completed by the TSP and provided to **Monsanto prior to January 15** of the season the crop is being grown. Where the last OTT application of Roundup Ready cotton occurs after December 30 the TSP will have to ensure a weed survey is undertaken, the details of which are then forwarded to Monsanto after January 15th.

Details required include:

- Assessment of all weeds remaining fourteen (14) days after the last “over the top” (OTT) application. The number of linear meters to be assessed are;

< 50 ha 4 x 100 meters linear row

51 – 100 ha 6 x 100 meters linear row

101 – 150 ha 8 x 100 meters linear row

> 150 ha 8 x 200 meters linear row

- The minimum distance between each 100m or 200m count must be 100 meters
- Any effective remedial action taken to stop seed set
- Comments about the level of weed control achieved in Roundup Ready Cotton
- Adverse event reporting

Monsanto will collate this data and discuss the findings with relevant industry weed scientists. Whilst abiding by privacy legislation, to protect grower's privacy.

In order to remain compliant growers must adhere to the following:

- Meet all requirements of the TUA
- Meet all requirements of the CMP
- Use only glyphosate that is registered for use in Roundup Ready Cotton
- Provide Monsanto with required information and documentation from the Weed Management Audit by the due date.

1.4 Adverse event reporting

Growers are required to report any adverse events, such as suspected weed resistance, to Monsanto as soon as it is identified.

Monsanto will investigate the incident and produce a report if weed resistance is confirmed.

1.5 Non-compliance with Crop Management Plan (CMP)

Monsanto will randomly audit growers of Roundup Ready crops to ensure the CMP is being carried out. Growers who do not comply with the requirements of this CMP may put at jeopardy the benefits of the technology. Consequently, Monsanto may charge growers a compliance levy, deny these growers access to the technology in the future and they may refer these growers' details to the relevant regulatory agencies.

The purpose of the Roundup Ready Cotton Integrated Weed Management Strategy (IWMS) is preventing the evolution of glyphosate resistant weeds. Prevention is best achieved by following Integrated Weed Management Strategy guidelines:

In Roundup Ready Cotton an alternative method of weed control must be used to stop the seed set of weeds that have been exposed (escape weeds) to Roundup Ready herbicide.

These alternative methods of weed control may include;

- a. Re-hilling, bed formation, or bed maintenance that gives control right across the bed.
 - b. Hand weeding/spot chipping.
 - c. In crop cultivation.
 - d. Use of alternate mode of action herbicides.
2. Use as many different weed control options (chemical and non-chemical) as possible in both crop and fallow phases.
 3. Enter a cropping phase with low weed numbers.
 4. Make every herbicide application count - use the registered rate that controls target weeds.