

Biosecurity risk management plan for transportation of cotton modules from Western Australia and the Northern Territory to Southern Queensland for ginning 2022

There are key pests, weeds and diseases that only occur in Northern or Southern Australia. Biosecurity practices that limit movement of these organisms between regions is critically important. Stringent biosecurity 'come clean, go clean' protocols should be applied to all movement of machinery, vehicles and personnel used in any part of cotton production.

In particular, the Cotton Biosecurity Reference Group* (Cotton BRG) has identified the following pests that require additional specific biosecurity management practices to be implemented to mitigate the risk of unintentional pest transport from the Ord Irrigation Area and Northern Territory to other regions:

- Pink bollworm (*Pectinophora gossypiella*)
- Herbicide resistant barnyard grass (*Echinochloa* spp.)
- Virulent *Alternaria* spp.

Biosecurity risk management plan

The Cotton BRG strongly recommends that all parties involved in the picking, transportation, and ginning of cotton from the Ord Irrigation Area and Northern Territory to Southern Queensland adopt a biosecurity risk management plan which includes the following mitigation activities:

1. Stringent 'come clean, go clean' protocols to be applied to all machinery, pickers, and vehicles used in any process of picking, transporting and ginning of the cotton modules.
2. Complete covering of cotton modules during transportation.
3. Segregation of gin trash originating from the Ord and NT.
4. Alternative end uses for gin trash that does not involve the use of trash on farms.
5. Access to sites around the vicinity of the gin and nearby farms for placement of pheromone traps for a pink bollworm surveillance program.
6. Communication and engagement with the local Cotton Growers Association regarding the biosecurity risk management plan and undertaken measures.
7. Reporting back to the Cotton BRG regarding progress against the biosecurity risk management plan.

Biosecurity Management Plan for managing risk associated with *Pectinophora gossypiella* in Northern Australia

Unsprayed cotton (non-BT) refuges are a host for pink bollworm (*Pectinophora gossypiella*), which is present in the Ord Irrigation Area and Northern Territory. Pink boll worm pupae can be easily incorporated into modules during picking. Pink bollworm larvae are very difficult to detect with pupae that can hide in the boll wall and be incorporated with the usual trash that ends up in modules and more troublingly larvae can pupate within the actual seed.

The pest is active in the north until mid-April upon which they enter diapause due to declining day length. Therefore non-Bt crops that have formed bolls leading up to April present a very high risk for hosting diapausing pupae that could easily be transported south. Although not registered for control of pink bollworm, Bollgard 3 cotton has a very high efficacy on pink bollworm so the presence of pupae is very unlikely compared to non-Bt cotton.

To minimize the risk of spread of pink bollworm, the following recommendations are provided:

1. Utilisation of pigeon pea refuges in place of unsprayed non Bt cotton (WA and NT only).
2. If unsprayed non Bt cotton is used as a refuge the refuge must NOT be picked.
Unsprayed non Bt cotton has a high risk of hosting *Pectinophora gossypiella* and therefore contaminating both pickers and modules.
3. Cotton Strippers are NOT to be used for harvesting cotton in NT and WA. This is due to high risk of pests being collected via immature bolls and packaged into modules.
4. Cotton to be transported and ginned prior to 31 October to limit host availability at the southern ginning facility
5. That cotton modules originating from WA and NT Cotton NOT be ginned in Central Queensland (Emerald or Moura) as these regions have an increased likelihood of alternate hosts in the local environment.

Pheromone traps to be installed near NQ sites for cotton production in 2020/21 to ensure continuing area freedom for *P. gossypiella*. These additional measures have been implemented after reviewing recent practices utilised in the USA where an eradication program for *P. gossypiella* has been successfully undertaken.

The rationale behind using pigeon pea refuges in place of unsprayed cotton is that this will limit the host plant resource for *P. gossypiella* in the farming system and complement the natural reduction of this pest before the crop reaches maturity. Extensive insect sampling work by the CSIRO and WA Ag Dept has demonstrated that *P. gossypiella* is not abundant after April. It is thought that the pest enters a type of diapause during late April/early May primarily due to the lack of suitable host vegetation. Not growing unsprayed cotton as the refuge option for Bollgard 3 would limit the host resource of this pest being extended beyond the natural decline of surrounding bush vegetation. Growing and picking only Bollgard 3 cotton will limit any opportunity for *P. gossypiella* to survive in crop.



Advancing Australian Cotton

Further information

The Cotton BRG welcomes further discussion regarding the biosecurity risk management plan. For more information, please contact Sally Ceeney, Policy Officer by emailing sallyc@cotton.org.au or calling 0459 189 771

Sincerely,

Sally Ceeney
on behalf of the Cotton Biosecurity Reference Group

**The Cotton Biosecurity Reference Group is an industry committee organized by Cotton Australia whose purpose is to provide technical support and strategic direction for CRDC and Cotton Australia to improve the industry's biosecurity preparedness and response to emerging issues. Representatives are comprised of researchers, extension and policy staff from Cotton Australia, CRDC, CSIRO, QDAF, NSW DPI, UQ and CottonInfo.*