

Cotton Leaf Curl Disease: Major Biosecurity Threat

Cherie Gambley¹, Murray Sharman², Susan Maas³, Linda Smith⁵ and Paul Grundy⁵

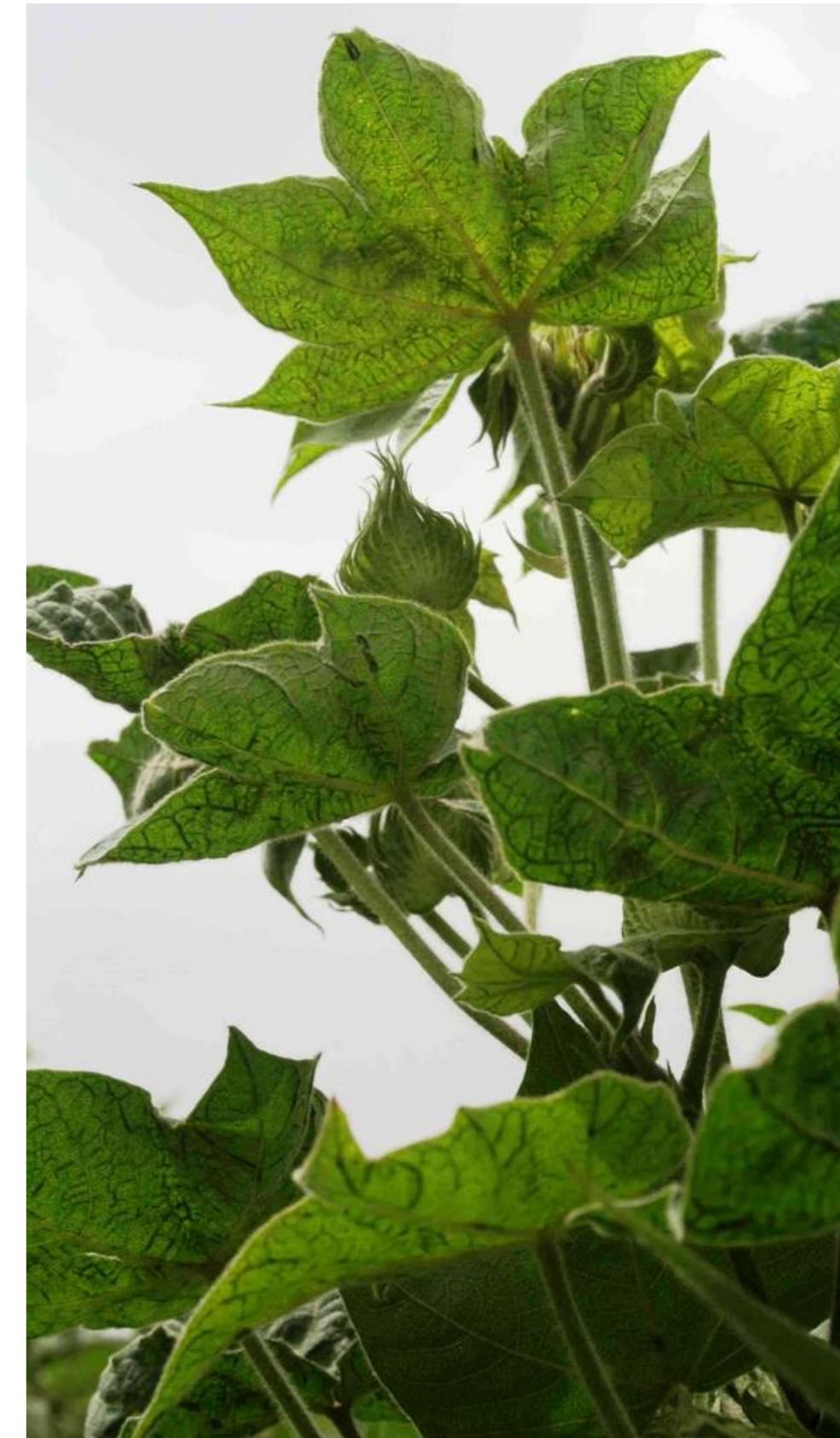
1. Department of Agriculture, Fisheries and Forestry, QLD (DAFF-Q), Redlands, QLD, Cherie.gambley@daff.qld.gov.au, 2. DAFF-Q, Dutton Park, QLD, Murray.sharman@daff.qld.gov.au, 3. DAFF-Q, Emerald, QLD, Susan.maas@daff.qld.gov.au, 4. DAFF-Q, Dutton Park, QLD, Linda.smith@daff.qld.gov.au, 5. DAFF-Q, Toowoomba, QLD, Paul.grundy@daff.qld.gov.au

Cotton leaf curl disease (CLCuD) causes serious losses to cotton production in many countries, such as India and Pakistan. For example, CLCuD cost the Pakistan industry about US\$5 billion (1992-1997) and during the 2009-1010 season losses of 100% were seen in India. CLCuD is also present in Sudan, Egypt, Tanzania, Malawi, Nigeria and China.

CLCuD is not present in Australia and represents a serious biosecurity risk.

CLCuD is caused by at least 9 different begomovirus species and their associated DNA-beta satellite molecules. The disease is spread by Silverleaf Whitefly which is abundant and widespread within Australia. Other hosts of CLCuD include vegetables and ornamentals. Thus, CLCuD is also a biosecurity risk to the vegetable and ornamental industries.

If you suspect you have seen this disease contact the authors of this poster, your state biosecurity agency or local cotton contact person.



Vein thickening and leaf-like growths emerging from leaf veins are common symptoms of CLCuD. Disease symptoms are best seen by holding the leaf up to the light.



Upward or downward cupping of leaf margins is another typical symptom of CLCuD. The symptomatic leaves shows signs of both upward cupping and thickening of the leaf veins. Badly affected plants are often severely stunted and yield very poorly.



Other hosts of CLCuD include okra, tomato, bean, chilli, capsicum, cucurbits and Hibiscus. Symptoms in other hosts are not always typical as seen in these melon & capsicum plants.



16th  **australian COTTON conference**

Growing Better all the Time



Queensland Government



Australian Government

Cotton Research and Development Corporation