

Cotton blue disease: Biosecurity risk

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Cotton blue disease (CBD) is not present in Australia. However, the vector of CBD, the cotton aphid, is common in all Australian cotton regions. It is likely that CBD has the potential to establish and spread to all cotton regions if it was to enter into Australia.

First described from central Africa it has caused serious losses in cotton from Brazil and Argentina. It has caused losses of up to 80% in susceptible varieties in Brazil and is the second most damaging viral disease of cotton behind Cotton leaf curl disease. *Cotton leafroll dwarf virus* (CLRDV) is the causal agent of cotton blue disease in Brazil.

Cotton blue disease is related to Cotton bunchy top and has a very similar disease cycle. However, it appears to be more readily transmitted than cotton bunchy top and CBD symptoms are more severe. These include very short internodes, severely down-curved (cupped) leaf edges, particularly on the youngest leaves. Leaves are smaller, thick and more brittle and leathery than healthy leaves. They also have more intense dark green colour.

Cotton blue disease remains a serious biosecurity threat to current Australian cotton varieties and the CRDC is developing the diagnostic expertise for cotton blue disease in



Cotton blue disease (CBD) is easily transmitted by cotton aphid and causes serious losses in cotton. It is a biosecurity risk to Australian cotton.



CBD leaf symptoms include very stunted plants with severely down-curved (cupped) leaf edges, particularly on youngest leaves.

Diagnostic PCR assay for Cotton blue disease. This assay is being developed to rapidly detect different strains of CBD. Samples A and B are in lanes 1-2, 3-4 and 5-6 with different strain-specific assays.

