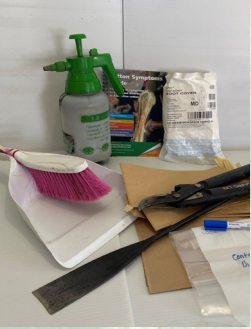
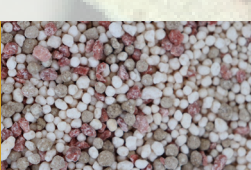


Verticillium wilt

Practical on-farm tips

Verticillium wilt is caused by the soil-borne fungal pathogen *Verticillium dahliae*. The pathogen has a large range of hosts and is easily spread through soil and machinery. A strong integrated disease management (IDM) strategy is crucial for managing for Verticillium wilt. For more detail on the disease and management, visit the [CottonInfo website](#) or read the annual [Cotton Pest Management Guide](#).

Disease management kit	• A disease management kit to help stop the spread between fields and farms, including: ◦ Dustpan and brush – dust off shoes, vehicle footwells and tools that contact soil; ◦ BioCleanse – spray bottle for applying to boots and tools; ◦ Booties (or shoe covers) when going in and out of diseased fields (beats cleaning mud off your shoes, although you should avoid entering wet fields); ◦ Secateurs for stem cuts; ◦ Asparagus knife for early season sampling; ◦ Labeled brown paper bags (date, farm, field); ◦ Permanent marking pen.	
Test your plants regularly	• If you see sick plants, don't make assumptions about the disease pathogen. • It's vital you sample your plants (stems for Vert) and send to your Cotton Pathologist for accurate identification. • Fill out the Disease Sample Diagnosis form and send with your sample to NSW DPI or QDAF. • CottonInfo Regional Extension Officers can assist with sampling.	
Weeds are hosts	• Weeds are hosts of Verticillium and will carry the disease • An integrated weed management plan is strongly linked to disease management. Verticillium has a large host range and causes vascular discolouration on more than 250 plant species, including many weeds. • Critical host weeds are bellvine, cotton regrowth, noogoora burr and milk thistle. • For details on all of these weeds, see WEEDPak on the CottonInfo website.	
Rotations	• Crop rotations MUST be considered • There are a range of important considerations with rotation crops and Vert risk. • The Australian Cotton Production Manual contains a table of rotation crops and their potential disease risk for Verticillium (and many other diseases). • Sorghum and maize are both considered to decrease risk. • Chickpeas are a host. Avoid chickpeas if you have Verticillium!	
Come clean, go clean	Adopt the principles of 'come clean, go clean' at your farm. • Declare war on weeds • Inform visitors of their responsibilities • Provide washdown facilities • Remember, feet go in fields too. Clean your boots and feet - not just your ute. • Make biosecurity a priority.	
Irrigation management	• Throughout the season avoid over-watering and waterlogging where possible and avoid late season irrigations that extend maturity.	
Balanced nutrition	• Verticillium wilt is favoured by excessive use of nitrogen which results in late season growth. • Potassium is an important nutrient for natural plant defences; consequently, potassium deficiency has been associated with more severe symptoms.	
Fallow management	• Crop residue management is vital. • Do not rake and burn as it won't reduce inoculum levels in the soil. It just spreads the pathogen around the field. • Incorporate trash (residues) as soon as possible after picking.	