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Chemicals the most likely cause of mystery leaf loss in cotton towns, secret report finds

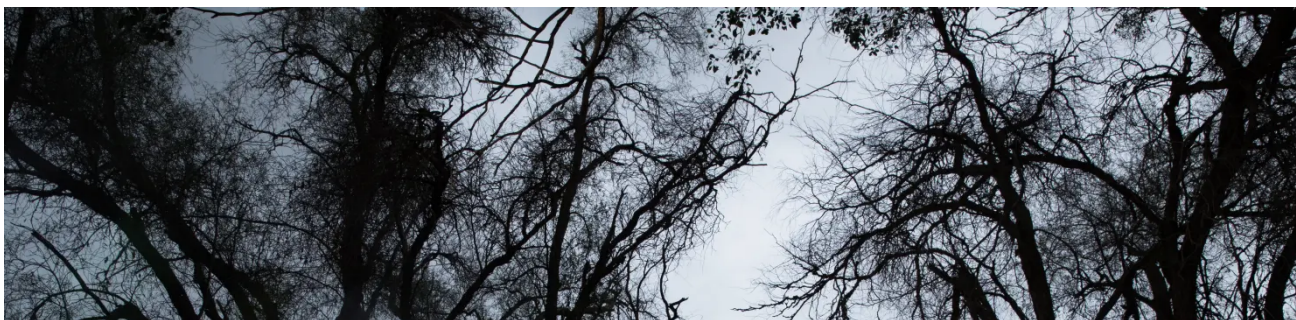


Harriet Alexander

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Chemicals used in cotton farming are the most likely cause of trees losing their leaves in parts of central western NSW and may pose a threat to human health, according to a government report that has been blocked from the public since it was circulated internally two years ago.

The report by a technical specialist within the NSW Department of Industry is the first official analysis of a phenomenon that has mystified and troubled graziers around Narromine, Trangie and Warren, as far south as Darlington Point near Hay and as far north as Bourke.





Bruce Maynard, whose grandmother and great aunt planted peppercorn trees on the Narromine Golf Course in the 1920s, believes they are dying from exposure to chemicals sprayed on nearby cotton farms. JANIE BARRETT

The peppercorn, which is an exotic evergreen, and certain species of eucalyptus drop their leaves annually at a time that coincides with cotton farmers using aerial spray to defoliate their crop, raising concerns about other potential harms caused by exposure to the chemicals.

But the notion that spray drift might be responsible for denuding the trees is contentious in the state's cotton belt. Narromine mayor Craig Davies, a former spray contractor, says leaf drop is caused by the drought.

The NSW Environment Protection Authority has repeatedly told complainants that the only way to prove spray drift is the cause of non-target species losing their leaves is to conduct tests within two days of the spray activity, which may be before the symptoms have appeared.

However, the NSW Department of Industry report, obtained by the *Herald* under freedom of information laws, concluded in May 2018 that the leaf loss was "definitely not a result of environmental conditions such as prolonged dry weather".

"It was most likely the result of a large area spraying with temperature inversions moving fine particles of chemicals further than would be expected ... Symptoms of peppercorn trees were not apparent in other non-cotton growing areas."

The risks of spray drift included: conflict between farmer groups, the prospect of legal action, the potential for people to be selling produce with trace residue, and human health impacts as there were "unknown effects of chemical especially with low dose longer time exposures". The report recommended a community mediation chaired by an independent person to minimise community unrest and reduce spray drift the next season.

But Bruce Maynard, a spokesman for the Lower Macquarie Overspray Group, said this had not occurred.

"The peppercorn trees are showing clear evidence that we're being exposed to something on an annual basis and it's across all our areas and towns," Mr Maynard said. "In the long run, this is about two things: health and also our businesses, because we are at risk for things outside our control."

A cotton farm in Trangie, north-west of Dubbo. JANIE BARRETT

The report did not name the chemicals that might have drifted off target. Cotton defoliants include the chemicals Thidiazuron, Dimethipin and Diuron, which has been linked to damage in the Great Barrier Reef and is proposed to be deregistered in the European Union from September.

Grazier Colin Hamilton said the leaf drop put beef producers in a difficult position when they had to declare their pasture free from contaminants because there was no confirmation that chemicals were present but the evidence suggested otherwise.

"But closer to home, the majority of people in our area drink the rainwater that runs off their roof," Mr Hamilton said. "There's the potential for human health impacts."

However, Cotton Australia chief executive Adam Kay said there was "zero evidence" that agricultural chemicals were responsible for the leaf drop. Preventing off-target spray drift was a priority across agriculture to ensure the safety of communities and environments.

"The use of biotechnology and integrated pest management in cotton has reduced pesticide use by 95 per cent since 1993," Mr Kay said.

The mayor's contention that the drought was more likely to blame was also supported by Leslie Weston, a professor of plant biology at Charles Sturt University. Some of the affected trees were 10 kilometres from the nearest cotton farm.

"I don't personally think that this particular herbicide would be killing trees unless they bordered the field and off-site spray was occurring, allowing root uptake or translocation from shoots," Professor Weston said. "If herbicide damage was prevalent, one would typically also see damage on citrus or other perennials growing nearby."

The NSW Environment Protection Authority said it had conducted three vegetation and water tests in the Narromine and Trangie areas in the past two years and no pesticides had been detected, but it was important for overspray complaints to be made within two days because the residue dissipated quickly.

"The EPA has committed to undertake pre- and post-spray inspections coming into the next spray season, to check the condition of vegetation and to collect vegetation samples for testing immediately after spraying," an EPA spokesman said.

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