

**Department of Primary Industries and Fisheries
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Psyllid leucaena damage can be managed

CENTRAL Queensland's spring rains and warmer temperatures have created the ideal environment for a heavy build-up of the sap-sucking leucaena psyllid insect in highly productive leucaena-based pastures.

Department of Primary Industries and Fisheries senior pasture agronomist Stuart Buck said severe psyllid (*Heteropsylla cubana*) infestations can defoliate and stop the growth of this high protein leguminous cattle fodder tree.

Mr Stuart, who was recently appointed to lead a DPI&F-funded project initiative "Accelerated adoption of leucaena", said that to minimise productivity losses, the most cost effective management approach was to heavily graze the leucaena stand.

This matches up with the Leucaena Management Code of Practice where land managers are required to graze leucaena pastures to minimise seed production and its potential to spread.

"The management key to breaking the insect's life cycle is to stock heavily to remove the developing shoots and young leaves where the psyllids lay their eggs and the nymphs and adult insects suck the sap," Mr Buck said.

"Cattle moving through the leucaena can also disrupt the psyllid feeding activity.

"Ironically, a pasture management approach that maximises leucaena forage production such as lowering the stocking rate or applying irrigation to promote new growth can actually increase psyllid numbers," he said.

Mr Buck said a number of properties in the Dawson-Callide region had been hard hit this year – particularly where leucaena had not been frosted.

"Where psyllids over-wintered on the green leaf material, numbers quickly multiplied under favourable leucaena growing conditions," Mr Buck said.

The psyllid is a small, yellow-green insect about 1-2mm long that hatches from the plant's growing terminal in 2-4 days and develops to an adult 10-16 days later.

Mr Buck said psyllids tend to be prevalent in the more humid coastal regions whereas in the drier western areas, leucaena is subjected to less frequent attacks.

Seasonal conditions have a major influence on psyllid populations which are naturally reduced by heavy rainfall or overhead irrigation which impacts on feeding and egg lay. Low humidity coupled with hot, dry conditions above 35 degC, hot winds and frost will also reduce numbers.

Spraying with Dimethoate insecticide will give three to four weeks control but is only cost-effective if infestation threatens establishment of young crops. Pesticide label withholding periods must be adhered to for stock grazing treated leucaena.

Mr Buck said University of Queensland plant breeders were well on the way to identifying psyllid resistant leucaena cultivars and had recently called for expressions of interest from a commercial partner to complete this work.

Mr Buck said he had also been fielding producer inquiries regarding the prolific coverage of a black sooty mould on stems and leaves of leucaena of all ages.

“This is actually a scale insect exudate and while it will not harm livestock, the heavy deposits appear to reduce the leucaena palatability,” Mr Buck said.

Mr Buck said visual appraisal also shows that the scale exudate collects on underlying pasture and impacts on grass growth.

Dawson Valley cattle producer Norm Becker, Paranui, Moura, planted his first leucaena in 1990. He selected Cunningham variety and planted on twin 1m rows with a 5m inter-row spacing.

To reinvigorate the aging stand, Mr Becker recently pulled the leucaena with a heavy scrub chain. This pulled the oldest and tallest trees to ground level which promoted new growth at the base of the multi-stemmed plants.

Mr Becker said the buffel grass previously affected by the black scale exudate was now regrowing under the trees on the 1m spacing. There was no evidence of scale on the new leucaena stems at this stage.



Dawson Valley cattle producer Norm Becker, Paranui, Moura (right) with DPI&F CQ BEEF principal industry development officer Mick Sullivan, Rockhampton (left) and Banana district producer Myles Ballentine, Namgoori, discuss the success of chain-pulling an 18-year-old Cunningham leucaena stand resulting in vigorous new growth.

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