

Cowpea Aphids

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Cowpea aphids (*Aphis craccivora*) are reported pests of not only cowpeas but also vetch crops, faba beans, chickpeas and lupins. Many medic species including lucerne are also affected.

Figure 1: Cowpea aphids congregating on lucerne.



The aphids are also known to transmit several plant diseases including subterranean clover stunt virus and alfalfa mosaic virus.

The bodies of immature aphids or nymphs are often a dusty grey in colour with the adult aphid a shiny black in colour. Both the nymphs and adult aphids have black and white markings on their legs. A proportion of the adult aphids have wings which assists their movement across vast distances on the prevailing winds.

Once on the host plants, the aphids congregate along plant stems and under their leaves where they suck

on the sap of the plant often leaving behind a sticky honeydew like substance.

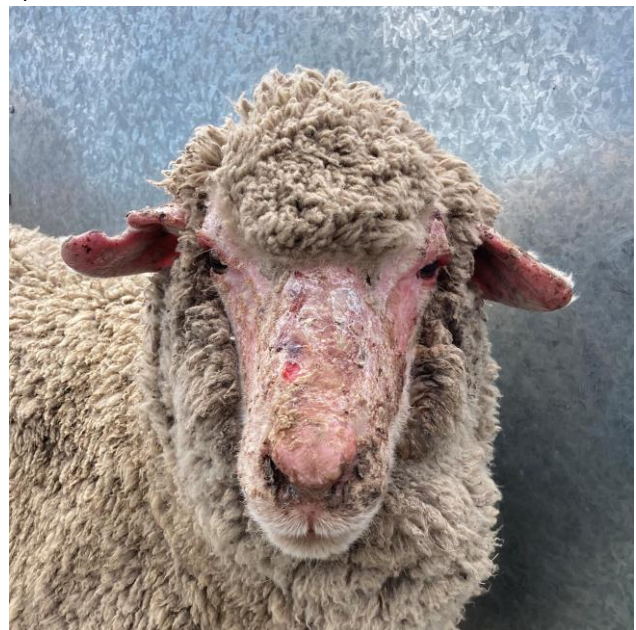
The aphids are predominantly female and most commonly reproduce asexually, with around 14 generations produced per year with between 20 and 125 live offspring produced per generation.

This rapid rate of reproduction of the cowpea aphid means that pastures become quickly infested. They can cause a significant reduction in lucerne growth with many plants showing stress, indicated by curled up leaves stunted growth. Plant death has been observed in many paddocks.

Animal welfare

Whilst not proven conclusively, it is strongly believed that cowpea aphids contain a photodynamic fluorescent pigment that causes phototoxic effects (photosensitisation) in stock after they directly consume the aphids whilst grazing on the pasture.

Figure 2: Photosensitisation caused by ingestion of cowpea aphids.



The initial effects of this photosensitisation in sheep show as severe sunburn to all bare areas face, ears, udders, breeches, backs in recently shorn animals. This then progresses to the formation of thick skin crusts with the contraction of lips, ears and eyelids in some animals. Animals also seek out shade during any period of bright sunshine.

Figure 3: Young lambs are most at risk from the effects of photosensitisation caused by cowpea aphids.



The longer term, chronic effects included scarring to affected skin areas resulting in increased culling rates, permanent udder and teat damage, fleece derangements and wool breakage, permanent eye damage and a decrease in lamb marking percentage.

Affected animals should be removed from the aphid infested pasture and provided with shade until they recover. Veterinary treatment may be required for severely affected animals.

Control

Contact your local agronomist to discuss aphid management options. There are a number of cultural and chemical options available.

Natural predators of cowpea aphids such as ladybirds, spiders and parasitic wasps can provide a level of aphid control but are often slow to build up in numbers to provide immediate effective control during an outbreak.

Figure 4: Natural predators can help control cowpea aphids.



More information

You can find more information about the symptoms and treatment options for photosensitisation in the NSW DPI Prime Fact:

https://www.dpi.nsw.gov.au/__data/assets/pdf_file/0016/111157/photosensitisation-in-stock.pdf

PestNotes – Southern – Cowpea aphid:

https://pir.sa.gov.au/__data/assets/pdf_file/0003/275826/Cowpea_Aphid.pdf