Department of Primary Industries and Regional Development
GOVERNMENT OF WESTERN AUSTRALIA

WEST MIDLANDS GROUP
our knowledge hub

Over-sowing with cereals and grasshopper control deliver good groundcover levels

Steele Rudd noticed an increase in bare patches in several paddocks on his property at Eganu in the early months of the 2021 season. He was aware of the potential damage caused by grasshoppers as seen on a neighbour's farm at Carnamah the previous year and knew he needed to be highly pro-active in managing grasshoppers and managing groundcover.

A perennial pasture with a good perennial density provides year-round groundcover – photo in early March '22 following a Summer with negligible rainfall.

STEELE RECOMMENDS

- Control grasshoppers early** through misting and spraying using improved chemical rates.
- If low groundcover – then over-sow with a cereal.
- Seed blow-outs early in the season to disturb egg beds and promote early ground cover.
- Bare areas in perennial pasture paddocks – then patch out with a cereal (uses Moby Barley).

PLANS FOR 2022

- To monitor grasshoppers early as control at the nymph stage is much easier than trying to kill flying adults.
- To over-sow Moby barley across areas with low groundcover within perennial pasture paddocks.

BACKGROUND

'Steele Rudd runs 'Our Selection' at Eganu a mixed enterprise, consisting of a continuous cropping program combined with a cattle operation rotationally grazed across improved perennial and annual pastures.

The landforms and soils are typical of the area with pale sandy gravels, gravelly pale deep sand, pale and yellow deep sands on sandplain, hillcrests, and very gently inclined hillslopes.

THE PROBLEM

"The 2021 season was reasonable with about 500mm rainfall. However, pasture paddocks which were not sown did not grow* as the grasshoppers effectively mowed any pastures down. The grasshoppers hatched around Anzac Day and all the paddocks were sprayed, with some paddocks sprayed multiple times". – Steele Rudd

KEY ACTIONS TAKEN

Action One

Sprayed after Cyclone Seroja and repeated spraying where required.

Action Two

Sowed cereals (Moby barley) into pasture paddocks with low groundcover.

Action Three

There was a small area with low groundcover surrounding a block of native vegetation which proved problematic. Paddock was sprayed for grasshoppers, but they kept coming out of the bush (tried misting the bush). A series of test strips were sown with mixed success.

Steele observed that paddocks adjacent to bushland were invaded by grasshoppers, but paddocks with perennial grasses sustained less damage and even though grasshoppers were controlled in these paddocks, they tended not to be reinvaded.

Many perennial pasture paddocks have small areas of low groundcover (LHS). Groundcover was increased by over-sowing cereals (Moby barley) following early rain in late March-April (RHS).

*** Soil disturbance through seeding disturbs the egg beds of the grasshoppers, so a common observation is that crop paddocks and over-sown pasture paddocks had little grasshopper damage.**
**** Adult grasshoppers can fly and as such control can be difficult as they can reinvade sprayed areas. Also, sprays do not control any eggs, so it is possible to have hatchings occur after a paddock has been sprayed.**