

SURVEY OF VERTEBRATE AND INVERTEBRATE PESTS AND BENEFICIALS HARBOURING IN HARVEST WEED-SEED CONTROL SYSTEMS

Year: 2020

Funding Provider:
Grains Research and
Development Corporation
(GRDC)

Lead Organisation:
Department of Primary
Industries and Regional
Development (DPIRD)

Collaborators
Liebe Group

Location:
Hirsch Property,
Latham, WA

Aim:

To determine whether there is a difference in invertebrate and mouse populations across different HWSC systems over the WA grainbelt, specifically if there is a species change with accumulating chaff within paddocks and the impact on the following crop.

Project Information:

The highest adoption of HWSC is in the GRDC western region with an estimated 67% of all farmers undertaking at least one HWSC strategy in 2014. One of the most common HWSC was narrow windrow burning however there had been a recent shift against this method due to the requirement to concentrate and burn all harvest residue, both chaff and straw, reducing the amount of organic matter returning to the paddock.

Chaff lining had recently become popular in the place of windrow burning. Chaff tramlining is a similar concept to chaff lining, but the chaff fraction is diverted through a chaff deck onto permanent wheel tracks in a CTF system. Wheel traffic creates a hostile environment that inhibits weed seed germination.

PROJECT FUNDERS



Chaff dumping had been around for some years. It is the collection of the chaff fraction using a cart towed behind the harvester. The chaff in the cart is then dumped, usually in piles in the paddock. The chaff is then either burnt, grazed or left to decompose.

The practice of chaff lining is increasing. This change in practice is likely to influence the diversity of invertebrates and vertebrate pests (mouse) found in paddocks. A better understanding of any changes to pests and beneficial species will enable growers to make a more informed decision regarding which HWSC system to use and direct future investment in control.

REPORTS & LINKS

NA