Canola Establishment Demonstration

A demonstration to examine the option of establishing canola via broadcasting seed into wheat stubble.

The demonstration was sown into the 2016 wheat variety trial, with different combinations of stubble height, stubble lodging, ground cover and stubble burnt.

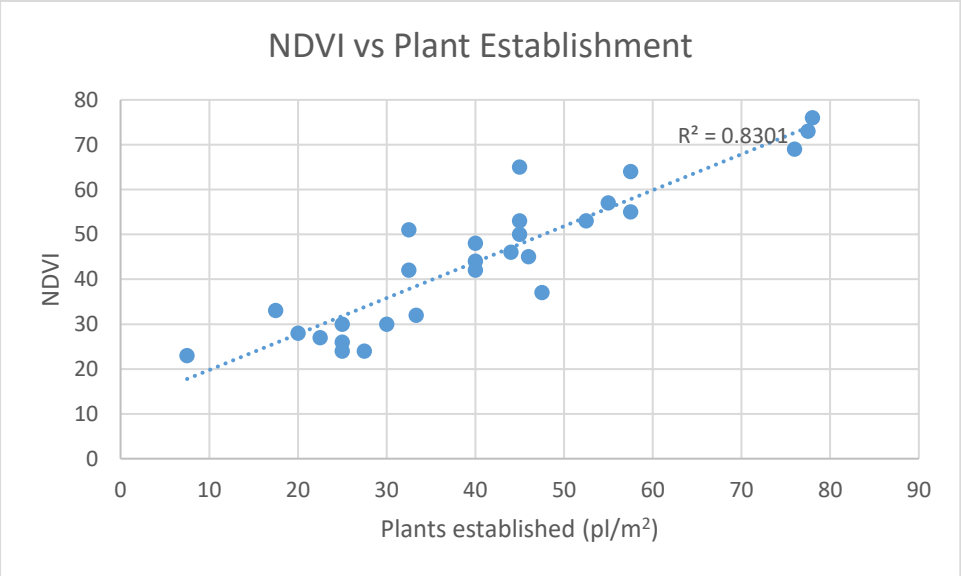
Canola seed (was broadcast at 3.44 kg/ha, targeting a population of 40 plants/m^2 assuming a 50% establishment, and watered up and followed by 30 mm of rain on May 20th.

Results

Establishment
Where the seed fell on burnt stubble, almost 100% of the seed established, leading to a plant population of 77 plants/m^2.
Where the seed fell on standing stubble, with little trash on the ground, establishment was or 41 – 58 plants/m^2 or 51 – 72%.
Where seed fell onto a mat of stubble and/or trash, establishment varied between 0 and 42 plants/m^2 or 0 to 53%.

Stubble height had no relationship to plants established (r^2 = 0.084) or NDVI measured (r^2 = 0.036)

There was a good relationship between plant establishment and the NDVI measured.



What does it mean?
While this demonstration suggests that broadcasting seed is a successful method of establishing canola into cereal stubble, the results should be viewed with caution. As illustrated by the high establishment in the burnt area, achieving 98% establishment is the result of very favourable conditions post broadcasting of the

seed. Watering up followed by rain kept the soil surface moist for an extended period, allowing the germinating seed to get the developing root into the soil without drying out. Without this period of moisture, it would be highly likely the rootlet would have dried out and died.

The NDVI value was highly correlated to plant number, which may be a useful tool for assessing plant establishment without the labour intensive counting of individual plants.