

GERMPLASM

evaluation network

your trusted research partner for germplasm evaluation



EXPANDED PROGRAMME FOR 2024
NOW INCLUDES CANOLA AND MRZ SITES



March 2024 – Protocol
(version 1 – 1st March 2024)

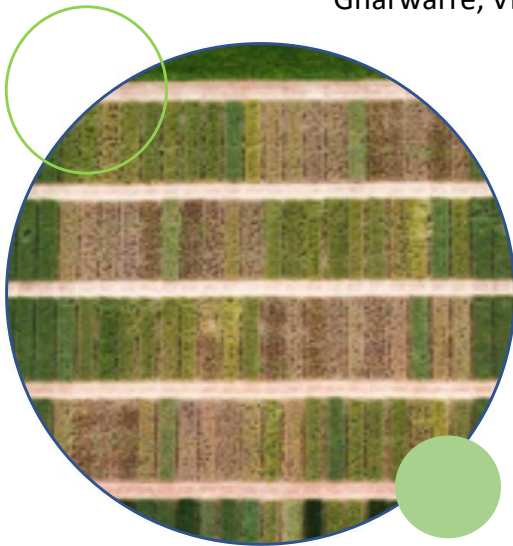
SOWING THE SEED FOR A BRIGHTER FUTURE

An Industry Innovations (II) 2025 initiative

GERMPLASM EVALUATION NETWORK (GEN) - BACKGROUND



Gnarwarre, VIC



Wallendbeen, NSW



Esperance, WA

Developing higher yielding crops through germplasm technology advances

FAR Australia has been working with breeders to bring new products to the Australian Grains industry since its inception in 2012. It is a trusted development partner for many breeders, assisting with bringing in new germplasm to the marketplace, whilst ensuring the correct management to fulfil the genetic yield potential.

Industry Collaborations

FAR Australia is once again partnering with industry to independently showcase **germplasm** performance in a series of high productivity **evaluation** trials across the country as part of its Industry Innovations (II) initiative.

WHAT IS PROPOSED?

FAR Australia ran an extremely successful germplasm evaluation network (GEN) program in 2022 and 2023 across an established series of trial sites in order to test different germplasm in wheat and barley. The trials focus on the genetic yield potential and disease resistance with trials in wheat and barley managed **'plus and minus' fungicide with a single replicate focused on PGR effect.**

In 2024 our program will be expanded:

- The addition of two sites in the MRZ in order to explore the flexibility of germplasm to adapt to shorter season lengths.
- The addition of more control varieties submitted by FAR Australia.
- Greater coverage of the HRZ with the addition of an Esperance site in WA.
- incorporation of two long season HRZ canola locations in Victoria and SA.

This independent initiative delivers a coordinated and independent network of high productivity trials in wheat, barley and canola. The trials will be managed 'plus and minus' fungicide with control varieties provided by FAR Australia.

All trial results will be reported to the breeders within 28 days of harvest. FAR Australia will report results of all trials to the wider industry after all breeders have been informed of their results.

The breeders and FAR Australia will jointly own the results produced. Pre commercialisation breeding lines can be identified by the breeders or a FAR Australia code.

OVERALL OBJECTIVE

To develop independent research results on profitable germplasm developments in wheat, barley and canola, using specific research strategies designed by FAR Australia for the High and Medium Rainfall Zones of Australia.

Seed requirements

Entry requirements are a minimum of **one cultivar for a minimum of three centres (two centres for canola)**. At each centre there will be a need for eight packets of each line for wheat, barley and canola (4 reps untreated and 4 reps fungicide treated). All plots established at 180 seeds/m² (canola 60 seeds/m²) unless otherwise stated (excluding WA to be sown at 200 seeds/m²). For later times of sowing in May, seed rates will be increased to 225 seeds/m². Seed request forms are attached and can be emailed back.

Minimum dataset:

Grain yield and quality receival standards, disease scores; other agronomic traits such as lodging will also be measured if appropriate.

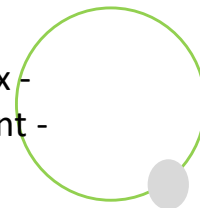
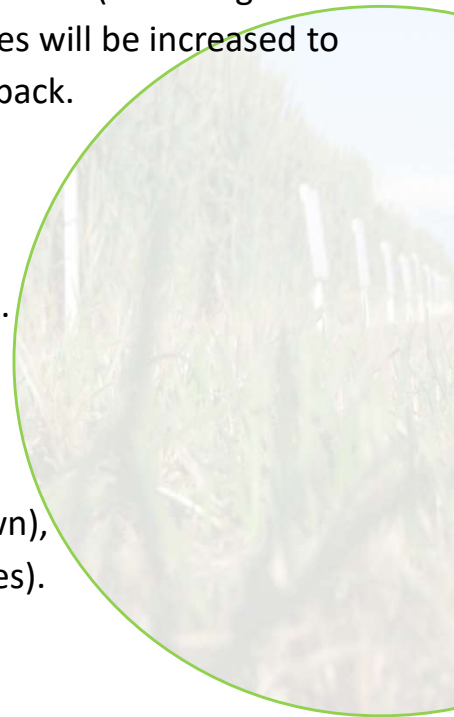
Entries will be compared to following national controls per site:

Wheat site controls: Scepter, Matador, Genie and Rockstar (May Sown), Big Red, RGT Cesario, RGT Accroc and Illabo (April Sown eastern states). Illabo and Mowhawk (April sown WA).

Barley site controls: RGT Planet, Neo and Minotaur & Rosalind.

Canola site controls: Roundup ready - Pioneer 45Y28 RR, True Flex - Nuseed Eagle TF, Clearfield - Pioneer 45Y95 CL and Triazine tolerant - Hyola Blazer TT.

Each cultivar will be sign-posted with experimental name and your organisation's logo (or kept anonymous if desired).



SITE DETAILS AND PROPOSED SOWING DATES – wheat & barley

Wheat and barley trials unless otherwise stated

HRZ Sites	Target sow date
Esperance, WA	TOS 1 April 15 – 25 and or TOS 2 May 5 -10
Frankland River (Albany PZ), WA	TOS 1 March 28 - April 5 and/or TOS 2 April 25 - May 5
Millicent, SA	TOS 1 May 5-10 (one sow date)
Gnarwarre, Vic	TOS 1 April 25-30 and/or TOS 2 May 15-25
Hagley, Tas (wheat)	April 25-May 5 (one sow date)
Hagley, Tas (spring sown barley)	August 25-September 10 (one sow date)
Wallendbeen, NSW (wheat only)	April 15-25 (one sow date)

MRZ Sites	Target sow date
Esperance PZ, WA	May 1 -10 (one sow date)
Bordertown, SA	May 1-10 (one sow date)
Daysdale, NSW	May 1-10 (one sow date)

COSTS

A minimum of one cultivar of wheat/barley across three sites totaling \$990 plus GST per entry; additional site entries of the same cultivar will cost \$350 plus GST per site

Should you wish to invest in entries into FAR Australia's Germplasm Evaluation Network, please contact Rachel Hamilton on 0428 843 456 or email rachel.hamilton@faraustralia.com.au

SITE DETAILS AND PROPOSED SOWING DATES - canola

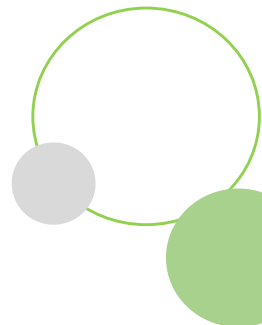
Canola trials unless otherwise stated

HRZ Sites	Target sow date
Millicent, SA	May 5-10
Gnarwarre, Vic	April 20-30

COSTS

A minimum of one cultivar of canola across two sites totaling \$900 plus GST per entry; additional site entries of the same cultivar will cost \$500 plus GST per site

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