



**Plot2  
Farm**

# B004 - Barley variety comparison (malt or feed)

**Objective:** Compare the yield and quality of different barley varieties (malt or feed).

## Research support

Each barley variety carries distinct genetic traits that cause it to perform better or worse under different environmental and management conditions. Comparing varieties prior to full adoption can assist farmers in gaining insight into how new varieties may perform on their farm and under their specific management. The following is a field-scale research design that can be used to compare barley varieties.

This on-farm research protocol will help compare barley varieties on your farm under typical management.

## Field Layout and Selection

Field layout will depend on the number of treatments selected. Review the Research Guide for the best practices on treatment design, choosing your trial and how it should be laid out.

## Treatments

To follow good experimental protocol, treatments should be both replicated and randomized. For example, if you are testing 2 treatments, the order of those treatments change in each replication. For example, in replication 1, treatment 1 precedes treatment 2, but in the second replication, treatment 2 precedes treatment 1. This reduces the effects of field variability on results. Take detailed notes to remember the order of treatment applications.

This protocol includes the option for 3 treatments. However, applicants can select only 2 treatments if desired.

**Treatment 1: Variety 1:** Seed desired Variety 1 at a seeding rate that achieves a set target plant population (i.e., 25-35 plants m<sup>2</sup>) based on thousand kernel weight (TKW) and adjusted for seed lot germination.

**Treatment 2: Variety 2:** Seed desired Variety 2 at a seeding rate that achieves the same target plant population (i.e., 25-35 plants m<sup>2</sup>) based on TKW and adjusted for seed lot germination.

**Treatment 3: Variety 3:** Seed desired Variety 3 at a seeding rate that achieves the same target plant population (i.e., 25-35 plants m<sup>2</sup>) based on TKW and adjusted for seed lot germination.

Replication 1	Treatment 1
	Treatment 2
	Treatment 3
Replication 2	Treatment 2
	Treatment 3
	Treatment 1
Replication 3	Treatment 3
	Treatment 1
	Treatment 2
Replication 4	Treatment 2
	Treatment 3
	Treatment 1

#### Additional Notes:

1. Note that all varieties will be seeded to meet the same target plant population but weight of seed per acre will vary between varieties based on differences in germination and TKW. In addition, both varieties will receive the same fertilizer, seed treatments, herbicide, fungicide, pre-seed and harvest treatment.
2. Always read and follow label directions.