

**Oregon State University winter barley nurseries: 2013-2014.** The summary is divided into “Malting”, “Food”, “Forage/Feed”, and “Genetics”. In reality, these areas of endeavor are tightly integrated. This is especially true for feed barley as we generally don’t breed specifically for this end-use however feed barley lines may stem from any of the other breeding areas. The emphasis of the program is on facultative growth habit in order to provide maximum flexibility in planting date (for growers) and breeding (for research and variety development). The list does not include all 2014 spring-planted trials, as these are still under development.

## Winter Malting Barley

### **Overview:**

#### **Number of advanced and fixed lines: 1609**

- 499 in yield trial plots
- 1110 in single, double or mini-plots (doubled haploids)

#### **Number of populations/families in early generations:**

- 7 F1’s

### **Details:**

#### **Oregon Winter/Facultative Barley Statewide Yield Trial; Fall-planted; 44 entries**

- Corvallis, OR 3 rep, RCBD
- Lewis Brown Farm 3 rep, RCBD  
(Organic)
- Hermiston, OR 3 rep, RCBD
- Pendleton, OR 3 rep, RCBD
- Lexington, OR 3 rep, RCBD
- Mt. Vernon, WA 3 rep, RCBD
- Pullman, WA 3 rep, RCBD

#### **Oregon Malting Barley Training Population; Fall-planted; 404 entries**

- Corvallis, OR Type 2 Augmented Design (Yield Trial Plots)
- Mt. Vernon, WA Type 2 Augmented Design (Single Row Plots)
- St. Paul, MN Type 2 Augmented Design (Single Row Plots)

#### **Winter Malting Barley Trial; Fall-planted; 29 entries from US and International Cooperators**

- Corvallis, OR 3 rep, RCBD

#### **Winter Barley Germplasm Nursery; Fall-planted; 22 entries from US Cooperators**

- Corvallis, OR 3 rep, RCBD

#### **Observational Drill Strips (Corvallis); Fall-planted; 3 entries**

- OSU Lines

#### **Oregon Otter; Fall-planted; 28 entries**

- Dundee, Scotland Unreplicated Nursery with checks

#### **Malt Doubled Haploid Mini-Plots (Corvallis)**

- Fall-planted 108 Lines; Unreplicated Nursery with checks
- Winter-planted 22 Lines; Unreplicated Nursery with checks

#### **Malt Doubled Haploid Double Rows (Corvallis)**

- Fall-planted 285 lines; Unreplicated Nursery with checks
- Winter-planted 21 Lines; Unreplicated Nursery with checks

### **Malt Doubled Haploid Single Rows (Corvallis)**

- Fall-planted 637 lines; Unreplicated Nursery with checks
- Winter-planted 37 Lines; Unreplicated Nursery with checks

### **F1 (Corvallis); Fall-planted**

- 7 Pedigrees

## **Winter Food Barley**

### **Overview:**

#### **Number of advanced and fixed lines: 1287**

- 48 in yield trial plots
- 1239 in single, double or mini-plots (doubled haploids & F5's)

#### **Number of purification head rows:**

- 2400

#### **Number of populations/families in early generations:**

- 17 F1's
- 13 F2's

### **Details:**

#### **International Food Barley Trial**

- Corvallis, OR
  - Fall-planted 15 entries, 2 rep, RCBD
  - Winter-planted 30 entries, 2 rep, RCBD
- Pullman, WA
  - Fall-planted 15 entries, 2 rep, RCBD
- Dundee, Scotland
  - Fall-planted 30 entries, 2 rep, RCBD
- Lleida, Spain
  - Fall-planted 30 entries, 2 rep, RCBD

#### **EurOregon 2-row Food Barley Trial; Fall-planted; 18 entries**

- Corvallis, OR 3 rep, RCBD
- Mt. Vernon, WA 3 rep, RCBD
- Pullman, WA 2 rep, RCBD

#### **Black Beaut F5 (Corvallis); Winter-planted**

- 28 entries; unreplicated nursery

#### **Food Doubled Haploid Mini-Plots (Corvallis); Winter-planted**

- 154 Lines; Unreplicated Nursery with checks

#### **Food Doubled Haploid Double Rows (Corvallis); Winter-planted**

- 288 Lines; Unreplicated Nursery with checks

#### **Food Doubled Haploid Single Rows (Corvallis)**

- Fall-planted 249 lines; Unreplicated Nursery with Checks
- Winter-planted 520 lines; Unreplicated Nursery with Checks

#### **Purification Head Rows (Corvallis); Fall-planted**

- Streaker 1800 rows (600 each from 3 Farmer's Fields)
- 09OR-86 600 rows

#### **F2 (Corvallis); Fall-planted**

- 13 Populations

#### **F1 (Corvallis); Fall-planted**

- 17 Pedigrees

**Observational Drill Strips (Corvallis); Fall-planted; 3 entries**

- OSU Malt & European Lines

## Forage & Feed\*

**Overview:**

**Number of advanced and fixed lines: 11**

- 8 in yield trial plots
- 3 in Drill Strips

**Details:**

**Spring Forage Barley Trial; 8 entries**

- Corvallis, OR 3 rep, RCBD; February Planting
- Lebanon, OR 2 rep, RCBD; March Planting
- Clarksburg, CA 2 rep, RCBD; December planting
- Maxwell, CA 2 rep, RCBD; January Planting
- Riverdale, CA 2 rep, RCBD; November Planting

**Observational Drill Strips (Corvallis); Fall-planted; 3 entries**

- OSU & European Feed Lines

\*Not an inclusive list as feed lines are integrated within other breeding classes. All lines grown have potential as a possible feed variety.

## Genetics

**Overview:**

**Number of advanced and fixed lines: 3816**

- 262 in yield trial plots
- 3816 in single, double or mini-plots

**Number of populations/families in early generations:**

- 65 F2's

**Details:**

**Barley Stripe Rust Nursery (Corvallis); Winter-planted; Type 2 Augmented Design**

- OSU-TCAP NSGC Winter Barley Core 374 entries
- ARS BSR Mapping Populations 207 entries
- Lenetah/GZ Population 153 entries
- Cali-sib/Bowman Population 120 entries
- ORO (BCD-47/Baronesse) Population 407 entries
- 2-row Spring Barley Association Mapping Panel 248 entries
- 6-row Spring Barley Association Mapping Panel 253 entries
- 2-row Spring Barley Nested Association Mapping Parents 102 entries
- Beer Flavor Panel; Winter-planted 92 entries
- Oregon Winter/Facultative Statewide Trial 44 entries
- Oregon Malting Barley Training Population 404 entries

**OSU-TCAP Low Temperature Tolerance Panel; Type 2 augmented design**

- Corvallis, OR 941 entries, Winter-planted (BSR Nursery)
- St. Paul, MN 941 entries, Fall-planted

- Aberdeen, ID 941 entries, Fall-planted
  - Wooster, OH 941 entries, Fall-planted
  - Lincoln, NE 941 entries, Fall-planted
  - Dundee, Scotland 941 entries, Fall-planted
  - Irlbach, Germany 384 entries, Fall-planted
  - Kurashiki, Japan 384 entries, Fall-planted
  - Martonvasar, Hungary 941 entries, Fall-planted
  - Freising, Germany 941 entries, Fall-planted
  - Zaragoza, Spain 941 entries, Fall-planted
  - Lacombe, AB Canada 941 entries, Fall-planted
  - Maule, France 941 entries, Fall-planted
  - Champagne, France 941 entries, Fall-planted
- Low Temperature Tolerance Panel (subset) Yield Trial; Fall-planted; 262 entries***
- Moro, OR Type 2 augmented design
- Minnesota Genomic Selection; Fall-planted; 266 entries***
- Corvallis, OR Type 2 augmented design
- Oregon Promise Population***
- Corvallis, OR
    - Winter-planted 205 entries, 2 rep, Alpha Lattice
  - Dundee, Scotland
    - Spring-planted 153 entries, 2 rep
- UG99 F2 (Corvallis); Fall-planted***
- 50 Populations
- LTT F2 (Corvallis); Winter-planted***
- 15 Populations