

Montana State University

Barley, Malt & Brewing Quality Lab

Testing Services for Breeding Scale

Grain Analysis (50 sample minimum):

- Protein/Moisture: \$10/sample
- RVA - Stirring Number:
 - Pre-milled: \$15/sample, w/ milling: additional \$15/sample
- WAXY Screening:
 - Pre-milled: \$30/sample, w/ milling: additional \$10/sample.
- DON:
 - Pre-milled \$30/sample, w/ milling: additional \$10/sample.

Malting & Malt Analysis:

-Pico Scale (early generation screening, 5.6g) - 92 sample minimum, additions in sets of 92

**Submissions must be sent as 2x sets of 5.6g each/sample*

- Malting only: \$50/sample
- Extract, B-Glucan, FAN: additional \$25/sample
- a-amylase & Diastatic Power: additional \$25/sample

-Micro Scale (120g) - 60 sample minimum, additions in sets of 15.

**Submissions must be sent as 2x packs of 120g each/sample*

- Malting only: \$75/sample
- Extract, B-Glucan, FAN, & Soluble Protein: additional \$25/sample
- a-amylase & Diastatic Power: additional \$25/sample
- Total Protein: additional \$10/sample

-Macro Scale (4-7kg) - 3 sample minimum

- Malting only: \$700/sample
- Malt Analysis: Basic: additional \$75/sample, Full: additional \$125/sample

-Malt Analysis Only: 50 sample minimum

**120-250g needed per sample.*

- Extract, B-glucan, FAN & Soluble Protein: \$40/sample
- a-amylase, Diastatic Power: add \$35/sample, Friability: add \$15/sample; Color/pH: add \$10/sample

Notes:

- Malting profiles can be designed to fit research needs.
- Malt analysis can be FG or CG grist and either a Congress or Single Infusion extraction.
- Remaining malt/grain can be returned - cost of shipping & packaging materials will be invoiced.

Breeding Screening:

GN Qualitative seed screening: \$25/sample, 50 samples minimum

GN Quantitative Distillation: \$200/sample, 30 sample minimum

Predicted Spirit Yield: \$100/sample, 30 sample minimum

Forage Nitrates: 50 sample minimum

- Pre-milled: \$9/sample, w/milling: additional \$5/sample

Please reach out to Hannah Uhlmann (hannah.uhlmann@montana.edu) to discuss your project needs and determine timeline/availability. For more information about the lab equipment and capabilities please visit our website at: www.montana.edu/barleybreeding/malt-quality-lab/Research

