



American Malting Barley Association, Inc.

MALTING BARLEY BREEDING GUIDELINES IDEAL COMMERCIAL MALT CRITERIA

| | <u>Adjunct Brewing Two-Row</u> | <u>All Malt Brewing & Distilling Two-Row²</u> | <u>Grain Distillers' Two-Row</u> |
|---|------------------------------------|--|--------------------------------------|
| AMBA Member Interest¹ | 64% | 31% | 5% |
| Barley Factors | | | |
| Plump Kernels (on 6/64) | > 90% | > 90% | > 70% |
| Thin Kernels (thru 5/64) | < 3% | < 3% | < 5% |
| Germination (4ml 72 hr. GE) | > 98% | > 98% | > 98% |
| Protein | ≤ 13.0% | ≤ 12.0% | 11.5 -14.0% |
| Skinned & Broken Kernels | < 5% | < 5% | < 5% |
| Malt Factors | | | |
| Total Protein | ≤ 12.8% | ≤ 11.8% | 11.0 - 13.5% |
| on 7/64 screen | > 70% | > 75% | >50% |
| Glycosidic Nitrile (g/MT) ² | | < 0.5 | < 1.5 |
| PSY (LPA/MT) ² | | ≥ 400 | |
| Measures of Malt Modification | | | |
| Beta-Glucan (ppm) | < 100 | < 100 | |
| Soluble/Total Protein | 40-47% | 38-45% | >48% |
| Turbidity (NTU) | < 10 | < 10 | |
| Viscosity (absolute cp) | < 1.50 | < 1.50 | |
| Congress Wort | | | |
| Soluble Protein | 4.8-5.6% | < 5.3% | >6.0% |
| Extract (FG db) | > 81.0% | > 81.0% | > 79.0% |
| Color (°ASBC) | 1.6-2.5 | 1.6-2.8 | <4.0 |
| FAN | > 210 | 140-190 | >250 |
| Malt Enzymes | | | |
| Diastatic Power (°ASBC) | > 140 | 110-150 | >200 |
| Alpha Amylase (DU) | > 50 | 40-70 | >75 |

¹Based on 2019 dues weighted survey of regular members.

²The All Malt Distillers' Two-Row should have less than 0.5 g/MT Glycosidic Nitrile (GN) and a Predicted Spirit Yield (PSY) of 400 LPA/MT or more. GN and PSY are distilling, not brewing parameters.

General Comments

Barley should mature rapidly, break dormancy quickly without pregermination and germinate uniformly. The hull should be thin, bright and adhere tightly during harvesting, cleaning and malting. Malted barley should exhibit a well-balanced, modification in a conventional malting schedule with four day germination.

Malted barley must provide desired beer and spirit flavor.

Distillers' Malt guidelines are designed to reflect how varieties perform when malted in the normal Brewers' cycles used for AMBA and CCRU variety trials.

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