MALT BARLEY
AGRONOMIC TIPS

PLAN BEFORE YOU PLANT: Talk to a maltster or local market representative to determine what varieties are being accepted and to determine the variety that is best suited to your area.

SOIL

• Soil test to determine the nutrient levels and any potential deficiencies; because low protein is required for good malt, nitrogen fertilizer must be managed. Managing nutrients properly can also help to decrease lodging and increase fertility.
• Use 1,000 kernel weight to establish an appropriate seeding rate; this can help to reduce tillering (increase kernel uniformity) and increase yield, as well as even up maturity.
• Ensure proper residue management to minimize nutrient tie-up next year (goes for all crops, not just barley).
• Straw that is evenly distributed on the field will help to minimize the amount of nutrients (specifically nitrogen) that are immobilized by soil microbes. Generally, the soil’s carbon-to-nitrogen ratio is 10:1 and when the ratio exceeds 30:1 (i.e., Straw piles or poorly spread residues) nitrogen is immobilized—when the ratio is less than 20:1 nitrogen is released.

SEEDING

• Seed at an appropriate depth—too deep decreases seedling vigour.
• Plant into a clean field as volunteers (i.e., wheat and barley) will decrease quality and increase dockage.
• Planting barley in a rotation (especially one year out of cereals) helps to control diseases and pests.
• Seeding early helps to increase yield and decrease protein content.
• Use high-quality, clean, certified seed. Early season vigour helps to increase yield, clean seed will help prevent wheat or other barley varieties from contaminating the field.
• Use seed treatments to prevent diseases.
• Early season weed control provides more of a yield boost than late season, as yield is fixed early in the plant’s life.
• Scout and use foliar fungicides when necessary—preventing infection of the penultimate and flag leaves are the most important in protecting yield.

**HARVEST TIPS**

• You can begin combining your barley at a 13.5 per cent moisture level and below (the moisture level it is considered dry).
  • If the grain is a little bit tougher, it could be taken off early to attempt to preserve the quality. In this case, it will just have to be managed carefully to ensure that it does not heat.
• It is recommended you sample your crop according to Canadian Grain Commission (CGC) guidelines.
  • Take small samples out (little scoops and store on the side) while dumping grain into the bin.
• The CGC website has step-by-step directions and guidelines on how to properly sample grain. Go to the website (www.grainscanada.gc.ca) and click on the “Producers” link on the left; then click on “Grading and Inspection;” followed by “Taking a Representative Sample.”
• Store grain immediately after harvest.
• When storing, cool off as quickly as possible through effective aeration. Turning throughout the winter can help to keep the temperature low and prolong germination energy and prevent pest damage (i.e., insects).
• Storing your crop under 17°C protects it from harmful insects and keeps the germ from drying and losing its vigour.
  • Storing your crop under 0°C can actually disinfest the grains of insects (see chart below).
• If you have any questions, please contact your maltster, local market representative or go to www.grainscanada.gc.ca.

**Disinfestation time periods required at low temperatures**

<table>
<thead>
<tr>
<th>Constant grain temperature</th>
<th>Time period required for disinfestation</th>
</tr>
</thead>
<tbody>
<tr>
<td>-5 °C</td>
<td>12 weeks</td>
</tr>
<tr>
<td>-10 °C</td>
<td>8 weeks</td>
</tr>
<tr>
<td>-15 °C</td>
<td>4 weeks</td>
</tr>
<tr>
<td>-20 °C</td>
<td>1 week</td>
</tr>
</tbody>
</table>

This information sheet was produced in cooperation with Rahr Malting Ltd. For more information, please contact Rahr’s Grower Relations Coordinator Russell Shuttleworth at (403) 747-2777.