



Growing Malting Barley in New York

By Bill Verbeten, Cornell Cooperative Extension

- Work very closely with your local malt house or distillery to secure a market for your barley and have a secondary market (feed) planned for your barley planned **prior** to planting. Work closely with your local Cooperative Extension agent or crop consultant to grow malting barley.
- Plant varieties previously grown in New York in the variety trials. Yield, test weight, disease resistance, malt quality, and other traits should be known. Winter varieties typically yield 70-90 bu/A while spring varieties usually yield 40-60 bu/A.
- Malting barley should be grown in well-drained soils with pH from 6.5-7.0. Winter varieties should receive 10-20 lb/A of nitrogen and 10-25 lbs. of phosphorous at planting. Lower spring nitrogen rates (10-50 lb/A) need to be used to keep barley crude protein between 9 and 12% DM. For other nutrients see the "Fertilizers for small grains" table in the Cornell Guide for Integrated Field Crop Management.
- Malting barley should be drilled at 1.5 inches deep and at a rate of about 100 lb/A (~2 bu/A). Winter varieties should be planted in September if possible. October plantings have a higher chance of winterkill. Spring varieties should be planted as early as possible. For every day that planting is delayed after April 15th spring malting barley will have yield losses of 1 bu/A.
- Broad-leaf weeds have been effectively controlled with Harmony Extra in western New York fields. Using 2,4-D should be avoided as some small grain heads have been observed to not fully come out of the boot stage. Organic systems will rely on summer tillage to germinate weeds prior to planting along with appropriate field operations at the time of planting.
- Cereal leaf beetle will be the major insect pest in malting barley. Thresholds are (3 larvae per stem prior to flag leaf stage, & 1 per flag leaf at or after Feekes 9.0). Insecticides labeled for other small grains should include barley on the label. No organic control options are available.
- *Fusarium* head blight is the major disease of malting barley. Production of the mycotoxin DON (deoxynivalenol, a.k.a. vomitoxin) occurs when plants are infested with *Fusarium* head blight. The best control options in New York for *Fusarium* head blight are Caramba, Proline, or Prosaro applied from grain head emergence through pollination (Feekes 10.5). An additional earlier application at flag leaf may be necessary in wet years. Management of DON in organic systems is dependent on varietal selection and cultural practices to reduce corn and small grain residue.
- Malting barley must be harvested as soon as possible when the kernels are $\geq 20\%$ moisture to preserve a high quality grain. During harvest, the combine's ground speed and reel speed must be slowed down as much possible in order not to damage the kernels. Dry at 5-10° F above ambient temperature to prevent heat damage with an indirect heat source. Malting barley should not be sprayed with glyphosate prior to harvest as reduced germination can result, especially in wet years.

Bill Verbeten is a regional agronomist with Cornell Cooperative Extension and is part of the NWNY Dairy, Livestock, & Field Crops Team. He leads the Extension effort in New York to help farmers grow high quality malting barley for the emerging farm brewing and distilling industries. He also works with crop fertility, forage management, on-farm research, precision agriculture, and general agronomic topics in northwestern NY.