

2009 VERMONT BARLEY AND OAT VARIETY PERFORMANCE TRIALS

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In 2009, the University of Vermont Extension established malting barley and oat variety trials at the Borderview Research Farm in Alburgh. Several local breweries and distilleries approached us about growing malting barley in the region. One of the interested distillers is located in Hardwick; therefore a second trial site for malting barley was established at High Mowing Seeds in Hardwick

TESTING PROCEDURE

The experimental design at the Alburgh and the Hardwick locations were randomized complete block with either three or four replications depending on the experiment. Barley and oat varieties evaluated are listed in table 1. The seedbed at each location was prepared by conventional tillage methods. All plots were managed with practices similar to those used by producers in the surrounding areas (Table 2). The plots in Alburgh were seeded with a John Deere Seed Drill and a Carter Cone Seeder at the Hardwick site. Grain plots were harvested with an Almaco SP50 plot combine. Yield, moisture, test weight and/or crude protein were recorded. The data collected was analyzed using a mixed model analysis where replicates were considered random effects. The LSD procedure was used to separate treatment means when the F-test was significant ($P < 0.10$).

Table 1. Cereal Grain Varieties used for trials.

Seed Source	Species		Locations	
	Type	Variety	Alburgh	Hardwick
Malting Barley Variety				
Albert Lea Seed House	6 row malting	Robust	X	X
Semican	2 row malting	AC Newport		X
Albert Lea Seed House	6 row malting	Rasmussen	X	X

Table 2. General plot management of the grain trials in Alburgh and Hardwick, VT.

Trial Information	Malting barley variety trial	Malting barley Variety trial	Oat variety trial
Location	Alburgh Borderview Farm	Hardwick High Mowing Seeds	Alburgh Borderview Farm



Figure 1. Yields



OAT RESULTS

While not significantly different, the oat variety Eskers was the highest yielding $3546.9 \text{ lbs ac}^{-1}$ and Morton was the lowest yielding $2704.0 \text{ lbs ac}^{-1}$. The test weights however were significantly different. Spur had the highest test weight at 36 bu ac^{-1} and Morton had the lowest test weight at 32.8 bu ac^{-1} (Table 5). Weeds in the oat trial did not appear to significantly impact plant growth. Out of all the small grains trialed at the Alburgh site, the oats we

