

# Evaluation of Organic Barley Varieties Southeast Research Farm, 2011

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## Materials and Methods

According to the USDA National Organic Program, certified organic farmers must source organic seed (seed from organically raised crops). The organic seed industry is currently growing in Iowa and the Midwest. With this growth, organic growers are looking for University-based recommendations on organic varieties to use in Iowa. The Organic Agriculture Program at Iowa State University has been using organic seed at the Southeast Research Farm for eleven years with excellent results.

There were four varieties selected for the 2011 organic barley variety trial. These included the following Albert Lea Seed House (Albert Lea, MN) barley varieties: Rasumusson, Morex, Conlon and Robust.

Plots measuring 20 x 380 ft. were laid out in a randomized complete block design with four replications of each variety. Barley was planted at 96.5 lb/acre at a depth of 1 in. on March 30, 2011. Red clover was seeded as an

underseeding to improve soil health at 12 lb/acre. Barley was harvested on July 5, 2011.

## Results and Discussion

Organic barley yields suffered from a cold, wet spring, followed by a dry July. Yields averaged 21 bu/acre in 2011, with no significant differences between varieties (Table 1). While there was no statistical difference in yield among varieties, organic Robust yielded 25 bu/acre compared to the 20–bu/acre average among the other three varieties. Barley test weight was 37 lb and was sold as certified organic grain for use in an organic dairy operation for \$7/bu.

Barley grain quality was good considering the excess levels of moisture during the growing season, with protein content averaging 10.3% across all varieties (Table 1). These results show great promise for organic seed.

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**Table 1. Organic barley yields and protein levels at Southeast Research Farm, 2011.**

Variety	Barley yield (bu/ac)	Protein (%)
Conlon	19.28	10.4
Morex	19.54	10.0
Rasmusson	19.20	9.9
Robust	24.54	10.7
LSD (0.05)	NS	NS