

Organic Oat Variety Evaluation

Clay County

Purpose of Study

To evaluate yield, test weight, crop height, rust, and weed pressure of different oat varieties grown under a certified organic production system.

Cooperator: Lynn Brakke
Nearest Town: Comstock
Soil Type: Borup loam
Tillage: Fall chisel, spring cultivated
Previous Crop: Soybeans
Variety: See table
Planting Date: May 17, 2002
Row Width: 9"
Fertilizer: 900 lbs/a "Cluck" 4-4-2 applied fall 2001
Weed Control: Harrowed 2.5 mph on May 22, 31, June 7 and 12, 2002. Handweeding after heading
Harvest Date: August 19, 2002
Experimental Design: Randomized complete block with 4 replications

Results

Differences in yield, test weight, crop height, pigweed numbers and rust levels were found in this study. Morton was significantly greater yielding than the five lowest yielding varieties. Buff, a hullless variety, had the lowest yield but the highest test weight.

Variety	Yield ¹ (bu/a)	Test Weight (lb/bu)	Crop Height (inches)	Pigweeds ² (ft ²)	Rust ³ (0-9)
Morton	86.7	29.2	45.8	0.40	0.0
HiFi	83.3	27.1	43.0	0.35	0.0
Richard	78.6	27.2	44.0	0.35	6.8
Ebeltoft	76.5	28.5	39.4	0.35	2.3
Leonard	75.8	23.0	42.6	0.31	4.5
Sesqui	72.7	28.0	41.8	0.31	0.0
Wabasha	71.1	27.2	39.7	0.47	2.3
Hyttest	67.0	31.0	43.0	0.09	9.0
Youngs	60.0	24.2	45.1	0.45	6.8
Buff	50.1	39.9	40.2	0.54	0.0
LSD (0.05)	12.4	2.0	1.4	0.15	3.7

¹ Corrected to 14% moisture

² Pigweeds/m² poking above canopy on June 28, 2002

³ 0=no rust on plants, 9=rust on all plants

For additional information:

Hans Kandel
 Courthouse; PO Box 279
 Red Lake Falls, MN 56750
 218-253-2897
 kande001@umn.edu

Jim Stordahl
 Municipal Bldg.; PO Box 69
 McIntosh, MN 56556
 218-563-2465
 stordahl@umn.edu

Partnership: Paul Porter
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