



2010 Organic Corn Variety Trial Results

The following tables present the results of organic corn variety trials that took place on research stations and cooperating farms in Oregon, Wisconsin, and Minnesota in 2010. These trials were part of the USDA-OREI funded project "Northern Organic Variety Improvement Collaborative". Trials will continue in 2011, 2012, and 2013.

Detailed descriptions of the trial methods and rating systems are listed after the results tables.



Table 1: NOVIC 2010 Oregon Corn Data

Variety Name	Husk Appearance (1-5)	Husk Protection (1-5)	Rowing (1-5)	Tip (1-5)	Fill	Ear Shape (1-5)	Tenderness (1-5)	Flavor (1-5)	Notes
Brocade	5.00 a	5.00 a	3.38 a	2.25 d		3.00 abcd	5.00 a	5.00 a	
Franks Red	4.75 a	4.00 ab	3.25 a	3.88 bc		3.00 abcd	4.00 b	2.25 c	jumbled rows (kernels), color variation-some white, mostly yellow, jumbled rows, red and bicolor, some dull kernels; variable color, lots of breaks; jumbled kernels,
Hookers	4.00 ab	4.25 ab	2.00 b	4.00 abc		2.00 d	4.00 b	3.25 bc	many broken rows and gaps, purple kernels, gaps and breaks,
Luscious	4.00 ab	3.75 ab	3.50 a	4.88 a		4.00 a	5.00 a	4.00 ab	incomplete kernel development on ear tips, sweet, not so corny, nice sweet flavor- not very corny,
Precocious	4.12 ab	3.75 ab	3.38 a	4.62 ab		2.88 bcd	5.00 a	4.00 ab	
Serendipity	2.62 b	4.75 ab	4.12 a	3.88 bc		3.50 ab	4.38 ab	4.38 ab	bicolor but mostly pale yellow, perfect rows,
Spring Treat	3.50 ab	3.00 b	2.00 b	3.50 c		2.25 d	3.88 b	4.00 ab	some color contamination from Hookers may be affecting flavor?, pretty uniform for size/shape/appearance, many ears with no flag leaves, kernel size variable; jumbled kernels; lingering chewiness,
Sugar Buns	4.00 ab	3.62 ab	2.12 b	4.12 abc		2.38 cd	4.00 b	4.00 ab	sweet but no corny taste, kernel size variation,
Temptation	4.75 a	4.12 ab	3.38 a	4.75 ab		3.38 abc	4.33 b	3.33 bc	

Trait scores are colored on a spectrum with green being best and red being worst. Letters after the scores represent groups of varieties whose means are not significantly different for that trait. In other words, all the varieties which have a score with an "a" after the number have essentially the same score for that trait. For more information about what the scores mean and how they were measured, please see the protocols at the end of this document.

Table 2: NOVIC 2010 Wisconsin Corn Data

Variety Name	Husk Appearance (1-5)	Husk Protection (1-5)	Tip Blanking (cm)	Rowing (1-5)	Ear Shape (1-5)	Flavor (1-5)
Bodacious	4.67 ab	5.00 a	1.15 a	3.88 a	3.25 a	4.00 ab
Brocade	4.89 a	4.67 a	0.55 ab	3.25 a	3.50 a	2.67 b
Franks Red	4.78 a	4.22 ab	0.51 ab	3.25 a	3.38 a	2.67 b
Hookers	4.89 a	4.44 ab	0.30 b	4.25 a	3.50 a	3.67 ab
Luscious	4.67 ab	4.33 ab	0.89 ab	3.62 a	3.75 a	4.00 ab
Spring Treat	3.67 b	3.44 bc	0.31 b	3.50 a	3.12 a	4.33 ab
Sugar Buns	4.62 ab	2.88 c	0.50 ab	3.43 a	3.57 a	4.67 a
Temptation	4.44 ab	4.44 ab	0.48 ab	4.25 a	4.00 a	3.67 ab

Trait scores are colored on a spectrum with green being best and red being worst. Letters after the scores represent groups of varieties whose means are not significantly different for that trait. In other words, all the varieties which have a score with an "a" after the number have essentially the same score for that trait. For more information about what the scores mean and how they were measured, please see the protocols at the end of this document.

Wisconsin Sweet Corn Evaluation Trials

W.F. Tracy
Department of Agronomy; College of Agricultural and Life Sciences
University of Wisconsin-Madison

Yield trials: Each endosperm type is evaluated in a separate trial. Endosperm types should be separated by at least 10 feet with two rows of the appropriate endosperm type adjacent to each test plot. Trials are planted in four row plots with three replications. Thirty kernels per row are planted and the rows are thinned to a final stand of 20 plants per row. The row length was 17.5 feet, including a three foot alley. The center two rows of each (four row) plot are harvested for evaluation approximately 21 days after 50% silking. Quality data are rated on a scale of 1-5 (see below). For yield data all ears in the center two rows that were large enough to be removed by a mechanical harvester were picked by hand and husked. Unusable ears (too young, poorly pollinated, or smutted) were discarded and the remainder was weighed and converted to tons/acre. To calculate percent moisture, a sample of kernels were removed from five ears and weighed, dried to constant weight, and weighed again. When comparing yield, take into account maturity differences as indicated by moisture at harvest. We do not adjust yields by correcting for moisture. Percent of ears with smut is reported, however this information should be used with caution since the plot was uninoculated. We do stand counts and root lodging counts. We also visually estimate percent of leaf area damaged by common rust (*Puccinia sorghi*).

Fresh Market Evaluation Trial. Each endosperm type is evaluated in a separate (see above). The trials are planted with three replications per trial and two row plots. Thirty kernels per row were planted and the rows were thinned to a final stand of 15 plants per row. The row length was 17.5 feet. One row of each plot was harvested for evaluation 22-25 days after 50% silking.

Husk appearance:	Dark green long flag leaves	5
	Good color and length	4
	Average color and length	3
	Pale color or short flag leaves	2
	Pale or brown or no flag leaves	1
Husk protection:	V. Long ≥ 3 inches beyond ear tip	5
	Long 2-3 inches	4
	Medium 1-2 inches	3
	Short ≤ 1 inch	2
	Exposed ear tips	1

Row configuration:	Perfect rows	5
	Goods rows	4
	Weak spirals or breaks	3
	Most ears some breaks or spirals	2
	All ears breaks, spirals or channels	1
Tipfill:	Perfect, blunt tips	5
	Good tips	4
	Top 0.5 inch blank	3
	Top 0.5-1 inch blank	2
	Top >1 inch blank	1
Ear shape:	Perfectly cylindrical	5
	Tip slightly tapered	4
	Acceptable taper	3
	Few ears strong taper or curve	2
	Unacceptable	1
Kernel color:	Buttery, glossy yellow	5
	Above average	4
	Average	3
	Pale or tan yellow	2
	Mottled, discolored, brown	1
Ear appearance:	Excellent overall	5
	Above average	4
	Average	3
	Below average	2
	Poor	1
Flavor:	Excellent	5
	Above average	4
	Average	3
	Below average	2
	Poor	1
Texture:	Excellent	5
	Above average	4
	Average	3
	Below average	2
	Poor	1

Flavor and texture were rated on raw product in the field and data from these two columns should not be compared between trials as different standards are applied for the different endosperm types.

For more information contact
Bill Tracy
Department of Agronomy
1575 Linden Drive
Madison, Wisconsin 53706
(608) 262-2587 wftracy@wisc.edu