

2017 Wildrice Field Crop Trials Results



Minnesota Agricultural Experiment Station and the College of Food, Agricultural and Natural Resource Sciences

Cultivated wildrice is grown on approximately 20,000 acres in Minnesota. In general, varieties are selected for high yield and resistance to shattering, disease and lodging. For flexibility in harvest timing, farmers can utilize varieties with different optimal harvest dates (e.g. early-medium maturity or late maturity). Where early killing frost is common, growers should favor early-medium maturing varieties.

Table 1. Yield, lodging and disease ratings for wildrice varieties.

Variety	Grand Rapids - 2017		
	Yield (lb/Acre) ¹	Lodging Score ²	Disease Score ³
Itasca Cycle-12	1512	3	4
Barron	1394	1	3

¹Yield adjusted to 4 plants/sqft density and 34% moisture.

²Using a 1-5 scale where 1 = stems completely erect, 3 = stems averaging 45° angle, 5 = stems prostrate.

³Disease rating using a 1-9 scale where 1 = no significant disease lesions and 9 = completely susceptible (dead).

Table 2. Seed length and percent long in A-grade.

Variety	Grand Rapids - 2017	
	Seed Length (64ths Inch) ¹	Long in A-grade (%) ²
Itasca Cycle-12	25.1	91.1
Barron	24.2	89.0

¹Dried, hulled, whole seeds.

²Percentage of A-grade seeds (width >3.75/64 in.) that are in the long-grain length category (>20/64 in.), calculated on an estimated volume basis.

Varieties

Itasca-Cycle12 – Selected from Itasca as a high-yielding, medium-late maturing, long-grain variety with improved resistance to seed shattering, fungal brown spot (FBS) disease and lodging when compared to earlier varieties (data not shown).

Itasca-Cycle12 seeds have a high percentage of the long trait (>20/64”) (Table 2). Panicle type is a mix of normal panicles and a noticeable percentage of bottlebrush panicles (data not shown). A decline in the number of bottlebrush panicles, from the initial frequency of 50%, is experienced without continued selection for the trait.

This variety was released in 2007 exclusively to Minnesota growers by the Minnesota Cultivated Wild Rice Council.



Barron – Selected from Voyager as an early maturing, high-yielding, long-grain variety with resistance to lodging and shattering as well as moderate resistance to foliar disease.

Barron flowers approximately four days earlier than Itasca-Cycle12 and Barron seed matures more uniformly (per head) approximately four days earlier than Itasca-Cycle12 (data not shown). Seed grade, yield and percentage of long-grain seed were not significantly different (p=0.05) from Itasca-Cycle12 in the 2017 variety trial (Table1 & Table 2).

This variety was released in 2014 exclusively to Minnesota growers by the University of Minnesota.

Research Managers

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Technical support for data analysis

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Wildrice Planting Rate and Date

Bushel Weight, Pounds.....	28
Seeds/Pound.....	11,300
Planting Rate, Pounds/Acre.....	60
Planting Rate, Seeds/Sq. Ft.....	11
Planting Date.....	May 25, 2017