



Wildrice

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Varietal Trials Results, January 2007



Cultivated wildrice is grown on about 20,000 acres in Minnesota. Though some wildrice paddies are grown with shattering types, most growers use varieties with nonshattering tendencies.

For flexibility in harvesting, plant varieties resistant to shattering, disease and lodging. Where early killing frost is common, growers should favor varieties of early to medium maturity.

Varieties

Franklin – Medium height, medium to early maturity. More resistant to shattering than older varieties such as K2, especially retaining more seed when harvest is delayed. Long seeds, resulting in higher percentage of long-grain seeds in A-grade width. Released 1992 by Minn. AES.

GIB-C9 – High-yielding, tall, medium-late-maturing variety. Average shattering resistance. Seed is short, similar in length to Itasca and Petrowske Bottlebrush. Panicle type is mixed, including a noticeable percentage of bottlebrush panicles, depending on continuous selection intensity for the trait. Proprietary variety owned by Gunvalson Brothers and Pine Lake Wild Rice.

Itasca – High-yielding, tall, medium-late-maturing variety with superior resistance to seed shattering and fungal brown spot (FBS) disease. Very lodging resistant. Yield is about 50% higher than Petrowske Purple and Franklin. Shattering loss is about one-third less than Franklin or Petrowske Purple. Significantly more FBS-resistant than Franklin. Taller than Franklin by 3 inches and Petrowske Purple by 4 inches. Slightly later maturing than Petrowske Purple. Flowers 2 to 3 days after Petrowske Purple or Franklin. Average seed length is somewhat short, similar to Petrowske Purple and GIB-C9, but shorter than Franklin by 1/64 inch. Panicle type is mixed, including a noticeable percentage of bottlebrush panicles, but declining from 50% frequency without continued selection for the trait. Released 2002 exclusively to Minnesota growers by the Minnesota Cultivated Wild Rice Council.

Petrowske Purple – Moderately high fungal brown spot disease resistance and yield. High shattering resistance and lodging resistance. Consists of heterogeneous panicle types, most of which have some degree of purple at full flowering. Medium plant height. Medium-late maturity, flowering several days to a week after K2 and Franklin. Seed is shorter in length than most older varieties, but similar in length to Itasca and GIB-C9. Released 2000 by Minn. AES under a licensing agreement.

Wildrice Planting Rate and Date

Bushel Weight, Pounds.....	25
Seeds/Pound.....	7,900
Planting Rate, Pounds/Acre.....	50
Planting Rate, Seeds Sq.Ft.....	9
Planting Date.....	Late Fall

Seed length and percent long in A-grade.

Variety	Kelliher/Waskish		Clearbrook/Gully		Aitkin		2000-06 Average	
	Seed Length, 64th in	Long in A-grade, %	Seed Length, 64th in	Long in A-grade, %	Seed Length, 64th in	Long in A-grade, %	Seed Length, 64th in ¹	Long in A-grade, % ²
Franklin	22.9	95	23.4	94	23.3	92	23.2	93
GIB-C9	21.9	84	23.0	89	22.6	88	22.5	87
Itasca	21.7	82	22.8	91	22.2	86	22.2	86
Petrowske Purple	21.9	86	23.1	92	22.4	85	22.4	87
LSD 5% Years	0.4	5	0.6	5	0.6	3	0.3	2
	00-01-02	00-01-02	00-03	00-03	00-01-02-06	00-01-02-06		

¹ Dried, hulled, intact seeds.

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

Yield, shattering, lodging and fungal brown spot (FBS) ratings for wildrice varieties.

Variety	Kelliher/Waskish				Clearbrook/Gully			Aitkin				2000-06 Average				
	Yield, Lb/Acre	Shattering %	Lodging Score	FBS Score	Yield, Lb/Acre	Lodging Score	FBS Score	Yield, Lb/Acre	Shattering %	Lodging Score	FBS Score	Yield, Lb/Acre ¹	Shattering % ²	Lodging Score ³	FBS Score ⁴	
Franklin	1,219	31	2.9	4.7	1,439	1.4	3.6	1,082	14	2.0	4.6	1,207	19	2.2	4.4	
GIB-C9	1,826	38	2.1	3.8	2,064	1.8	4.1	1,164	23	1.7	4.6	1,585	32	1.9	4.2	
Itasca	2,006	28	1.4	3.1	2,429	1.8	3.3	1,823	9	1.1	4.2	2,019	14	1.3	3.6	
Petrowske Purple	1,348	42	2.3	3.7	1,458	1.3	3.9	1,038	24	1.8	4.6	1,235	29	1.8	4.1	
LSD 5%	259	5	0.5	0.6	374	0.8	0.9	217	8	0.4	0.7	153	5	0.3	0.4	
Years	00-01-02	01	01-02	00-01-02	00-03	03	00-03	00-01-02-06	01-02-06	02-06	02	00-01-02-06	00-01-02-06	00-01-02-06	00-01-02-06	00-01-02-06

¹ Adjusted to 40% moisture.

² Expressed as a percentage of shattered seed plus grain yield per unit area.

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

⁴ Fungal Brown Spot rating using a 1 - 9 scale where 1 = no significant disease lesions and 9 = completely susceptible (dead).