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YIELDS OF BARLEY IN THE UNITED STATES AND CANADA 1927-31

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other varieties used in these trials. However, under field conditions its yields have been satisfactory, fields of Spartan having won each State barley-yield contest since 1929. Its uniformity and high test weight have brought it favor with pearlers and some maltsters, with the result that it commanded a substantial premium over six-rowed barley on the cash-crop market in Michigan in 1931. The station officials consider these advantages sufficient to justify its recommendation to Michigan growers. In Michigan, barley should be seeded as soon as the ground can be properly prepared in the spring. The usual rate of seeding is 1½ to 2 bushels per acre.

TABLE 11.—*Acre yields of varieties of barley grown at the Michigan Agricultural Experiment Station, East Lansing, in 1 or more of the years 1927–31*

[Data obtained through the courtesy of the Michigan Agricultural Experiment Station]

Variety	C.I. no.	Michigan no.	Number of plots and acre yield [1]									Number of years grown and yield in comparison with standard variety for comparable years	
			1927		1928		1929		1930		Average yield, 1927–30		
			Plots	Yield	Plots	Yield	Plots	Yield	Plots	Yield		Years	Yield
				Bu.		*Bu.*		*Bu.*		*Bu.*	*Bu.*		*Pct.*
Michigan Two-Row (Heil Hanna No. 1)[2]	2782	124	21	51.7	21	35.8	42	16.7	42	57.9	40.5	4	100.0
Spartan	5027	68	5	44.0	5	30.4	10	13.8	10	41.1	32.3	4	79.8
Velvet	4252	95	5	41.6	5	38.3	10	16.1	10	49.3	36.3	4	89.6
Glabron	4577	99	5	52.1	5	37.4	10	17.9	10	52.0	39.9	4	98.3
Minnesota 450	4646	100	5	46.1	5	36.9	10	17.8	10	41.1	35.5	4	87.5
Oderbrucker (Wisconsin Pedigree 9)	1275	101	5	40.6	5	35.4	10	19.7	10	45.8	35.4	4	87.3
Lion (Michigan Black Barbless)	923	102	5	44.1	5	31.0	10	14.1	9	50.4	34.9	4	86.1
Colsess	2792	120	5	45.4	5	31.4	10	15.6	10	35.4	32.0	4	78.8
Alpha	959	121	5	49.5	5	39.1	10	22.2	10	58.4	42.3	4	104.4
Hull-less (Coeleste)	4681	122	5	34.9	5	29.0	10	15.0	10	47.4	31.6	4	77.9

[1] No yields were recorded for 1931, as the plots were destroyed by wind.
[2] Standard variety with which others are compared.

MINNESOTA

UNIVERSITY FARM, ST. PAUL

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Yields from six testing fields are reported in table 12. These results do not differ greatly in their trend from those of the previous 5-year period. The smooth-awned hybrid varieties have continued to produce high yields and are now widely grown. Glabron and Velvet have been recommended to the farmers. Glabron is superior to Velvet in yield and in strength of straw. Smooth-Awn×Manchuria (Minn. No. 462; C.I. 5998), was clearly the best variety at Crookston and was very promising at the other stations. Wisconsin Pedigree 38 has been included in the test for only a single year. In that year it showed much promise. Trebi, over the full period, is undoubtedly the highest-yielding variety. It has been

recommended by the experiment station to be grown for feed, but not for market, because the maltsters discriminate against this variety, and that part of the crop not used on the farm does not bring as high a price as do the varieties preferred by maltsters.

The varieties recommended by the station for all sections are Improved Manchuria (C.I. 2330), Glabron, and Velvet for ordinary conditions. Trebi is recommended for the Red River Valley, Minsturdi for heavy soils where other varieties suffer from lodging, and Peatland (C.I. 5267) for peatland. For the cut-over district in northeastern and north-central Minnesota, Svansota, a two-rowed variety, is suggested.

Barley should be seeded as early as the ground can be prepared. This can usually be done by April 10 in some parts of the State, while in other sections it may not be possible before April 25. The recommended rate is 2 bushels per acre.

TABLE 12.—*Acre yields of varieties of barley grown at the Minnesota Agricultural Experiment Station, University Farm, St. Paul; at the Northeast Experiment Station, Duluth; at the Southeast Experiment Station, Waseca; at the North Central Experiment Station, Grand Rapids; at the West Central Experiment Station, Morris; and at the Northwest Experiment Station, Crookston, in 1 or more of the years 1927–31*

[Data obtained through the courtesy of the Minnesota Agricultural Experiment Station]

Station and variety	C.I. no.	Minnesota no.	Number of plots and acre yield												Number of years grown and yield in comparison with standard variety for comparable years	
			1927		1928		1929		1930		1931		Average yield, 1927–31			
			Plots	Yield	Plots	Yield	Plots	Yield	Plots	Yield	Plots	Yield			Years	Yield
St. Paul:				*Bu.*		*Bu.*		*Bu.*		*Bu.*		*Bu.*	*Bu.*			*Pct.*
Manchuria	2330	184	3	47.5	3	32.9	3	48.9	3	34.1	3	27.0	38.1		5	81.7
Glabron	4577	445	3	45.4	3	30.1	3	51.8	3	42.0	3	43.1	42.5		5	91.1
Svansota	1907	440	3	45.0	3	38.1	3	51.2	3	32.3	3	35.1	40.3		5	86.5
Velvet	4252	447	3	43.4	3	28.4	3	49.5	3	36.6	3	39.9	39.6		5	84.9
Trebi [1]	936	448	3	60.2	3	34.1	3	60.7	3	41.5	3	36.6	46.6		5	100.0
Manchuria×Smooth Awn	4667	457	3	45.2	3	31.8	3	54.0	3	41.7	3	43.3	43.2		5	92.7
Smooth Awn×Manchuria	5998	462	3	50.3	3	37.5	3	58.1	3	41.0	3	36.6	44.7		5	95.9
Peatland	5267	452	3	49.0	3	34.8	3	49.4	3	33.1	3	32.8	39.8		5	85.4
Colsess	2792	461	3	45.9	3	31.5	3	44.6	3	30.0	3	33.5	37.1		5	79.6
Heinrich's	------	465	3	49.4	3	39.3	3	53.9	3	33.4	3	28.9	41.0		5	87.9
Svanhals×Lion	5999	474	---	------	---	------	3	54.6	3	30.4	3	30.0	------		3	82.9
Do	6000	475	---	------	---	------	3	47.7	3	24.5	3	24.7	------		3	69.8
Minsturdi	1556	439	---	------	---	------	---	------	---	------	3	37.0	28.5	------	2	83.9
Composite Cross	4116	------	---	------	---	------	---	------	---	------	3	37.5	32.1	------	2	89.1
Mechanical Mixture	4115	------	---	------	---	------	---	------	---	------	3	34.8	35.2	------	2	89.6
Wisconsin Pedigree 38	5105	529	---	------	---	------	---	------	---	------	---	------	39.3	------	1	107.4
Jean's	------	------	---	------	---	------	---	------	---	------	---	------	26.8	------	1	73.2
Duluth:																
Manchuria	2330	184	3	51.8	3	36.3	3	33.2	3	26.4	3	29.0	35.3		5	87.6
Glabron	4577	445	3	56.0	3	37.0	3	25.8	3	31.7	3	29.7	36.0		5	89.3
Svansota	1907	440	3	41.9	3	22.5	3	21.1	3	32.8	3	25.7	28.8		5	71.4
Velvet	4252	447	3	60.0	3	38.0	3	29.7	3	27.9	3	26.3	36.4		5	90.2
Trebi [1]	936	448	3	65.1	3	41.3	3	30.5	3	30.9	3	33.9	40.3		5	100.0
Manchuria×Smooth Awn	4667	457	3	53.2	3	35.1	3	34.0	3	37.8	3	33.6	38.7		5	96.0
Smooth Awn×Manchuria	5998	462	3	62.9	3	39.6	3	23.9	3	32.9	3	28.1	37.5		5	92.9

[1] Standard variety with which others are compared.

TABLE 12.—*Acre yields of varieties of barley grown at the Minnesota Agricultural Experiment Station, University Farm, St. Paul; at the Northeast Experiment Station, Duluth; at the Southeast Experiment Station, Waseca; at the North Central Experiment Station, Grand Rapids; at the West Central Experiment Station, Morris; and at the Northwest Experiment Station, Crookston, in 1 or more of the years 1927–31*—Continued

Station and variety	C.I. no.	Minnesota no.	Number of plots and acre yield												Number of years grown and yield in comparison with standard variety for comparable years	
			1927		1928		1929		1930		1931		Average yield, 1927–31			
			Plots	Yield	Plots	Yield	Plots	Yield	Plots	Yield	Plots	Yield			Years	Yield
Duluth—Continued.				*Bu.*		*Bu.*		*Bu.*		*Bu.*		*Bu.*	*Bu.*			*Pct.*
Peatland	5267	452	3	56.4	3	35.5	3	28.8	3	27.5	3	32.0	36.0		5	89.3
Colsess	2792	461	3	62.5	3	34.4	3	28.5	3	33.2	3	21.0	35.9		5	89.0
Svanhals×Lion	5999	474	---	------	---	------	3	24.3	3	34.4	---	------	------		2	95.6
Do	6000	475	---	------	---	------	3	24.7	3	39.3	3	33.1	------		3	101.9
Wisconsin Pedigree 38	5105	529	---	------	---	------	---	------	---	------	3	31.6	------		1	93.2
Waseca:																
Manchuria	2330	184	3	41.3	3	57.4	3	49.5	3	40.4	3	48.9	47.5		5	80.8
Glabron	4577	445	3	39.4	3	56.7	3	52.4	3	38.8	3	55.2	48.5		5	82.5
Svansota	1907	440	3	36.3	3	55.3	3	47.1	3	40.5	3	47.3	45.3		5	77.0
Velvet	4252	447	3	39.8	3	54.9	3	48.9	3	37.8	3	50.2	46.3		5	78.7
Trebi [1]	936	448	3	53.8	3	67.5	3	63.9	3	45.1	3	63.8	58.8		5	100.0
Manchuria×Smooth Awn	4667	457	3	42.9	3	58.8	3	50.3	3	39.1	3	58.1	49.8		5	84.7
Smooth Awn×Manchuria	5998	462	3	42.7	3	65.5	3	53.7	3	46.0	3	65.8	54.7		5	93.1
Peatland	5267	452	3	45.4	3	53.0	3	50.5	3	42.7	3	48.6	48.0		5	81.7
Colsess	2792	461	3	35.6	3	55.2	3	46.2	3	38.3	3	47.2	44.5		5	75.7
Heinrich's	------	465	---	------	3	58.9	3	39.9	3	41.3	3	41.4	------		4	75.5
Dryland	5673	466	---	------	3	48.1	3	38.1	---	------	---	------	------		2	65.6
Svanhals×Lion	5999	474	---	------	---	------	3	41.4	3	44.4	3	46.5	------		3	76.6
Do	6000	475	---	------	---	------	3	45.0	3	41.9	3	46.8	------		3	77.4
Minsturdi	1556	439	---	------	---	------	---	------	---	------	3	48.2	------		1	75.5
Wisconsin Pedigree 38	5105	529	---	------	---	------	---	------	---	------	3	58.8	------		1	92.2
Grand Rapids:																
Glabron	4577	445	3	30.4	3	28.6	3	28.3	3	31.3	3	29.1	29.5		5	93.2
Svansota	1907	440	3	32.1	3	39.7	3	34.0	3	32.4	3	29.7	33.6		5	105.9
Velvet	4252	447	3	20.1	3	34.8	3	23.7	3	37.8	3	23.0	27.9		5	87.9
Trebi [1]	936	448	3	17.2	3	39.2	3	29.8	3	42.5	3	29.8	31.7		5	100.0
Manchuria×Smooth Awn	4667	457	3	32.7	3	33.8	3	31.3	3	33.4	3	32.2	32.7		5	103.1
Peatland	5267	452	3	14.9	3	44.4	3	27.1	3	38.9	3	34.7	32.0		5	100.9
Colsess	2792	461	3	26.9	3	28.2	3	32.5	3	28.4	3	28.8	29.0		5	91.4
Manchuria	2330	184	---	------	3	33.5	3	26.4	3	31.8	3	33.0	------		4	88.3
Smooth Awn×Manchuria	5998	462	---	------	3	40.3	3	30.6	3	38.9	3	24.9	------		4	95.3
Svanhals×Lion	5999	474	---	------	---	------	3	29.4	3	37.4	3	21.3	------		3	86.3
Do	6000	475	---	------	---	------	3	30.9	3	40.6	3	19.7	------		3	89.3
Heinrich's	------	465	---	------	---	------	---	------	---	------	3	23.2	------		1	77.9
Wisconsin Pedigree 38	5105	529	---	------	---	------	---	------	---	------	3	34.5	------		1	115.8
Morris:																
Manchuria	2330	184	3	43.6	3	35.1	3	27.3	3	19.3	3	27.4	30.5		5	83.1
Glabron	4577	445	3	50.0	3	32.4	3	34.5	3	23.9	3	28.8	33.9		5	92.9
Svansota	1907	440	3	49.1	3	42.3	3	31.4	3	26.4	3	25.8	35.0		5	95.9
Velvet	4252	447	3	45.6	3	36.8	3	26.6	3	28.1	3	26.1	32.6		5	89.4
Trebi [1]	936	448	3	54.6	3	27.4	3	28.3	3	28.4	3	43.8	36.5		5	100.0
Manchuria×Smooth Awn	4667	457	3	52.3	3	41.8	3	29.9	3	21.9	3	28.7	34.9		5	95.7
Smooth Awn×Manchuria	5998	462	3	31.3	3	38.3	3	29.3	3	34.1	3	30.4	32.7		5	89.5
Peatland	5267	452	3	45.4	3	26.8	3	26.5	3	26.0	3	29.9	30.9		5	84.7
Colsess	2792	461	3	41.9	3	29.6	3	26.3	3	22.0	3	26.2	29.2		5	80.0
Dryland	5673	466	---	------	8	29.1	---	------	---	------	---	------	------		1	106.2
Svanhals×Lion	5999	474	---	------	---	------	3	32.4	3	27.5	3	19.4	------		3	78.9
Do	6000	475	---	------	---	------	3	30.8	3	35.9	3	22.6	------		3	88.9
Heinrich's	------	465	---	------	---	------	---	------	---	------	3	20.4	------		1	46.6
Wisconsin Pedigree 38	5105	529	---	------	---	------	---	------	---	------	3	29.5	------		1	67.4

[1] Standard variety with which others are compared.

TABLE 12.—*Acre yields of varieties of barley grown at the Minnesota Agricultural Experiment Station, University Farm, St. Paul; at the Northeast Experiment Station, Duluth; at the Southeast Experiment Station, Waseca; at the North Central Experiment Station, Grand Rapids; at the West Central Experiment Station, Morris; and at the Northwest Experiment Station, Crookston, in 1 or more of the years 1927–31*—Continued

Station and variety	C.I. no.	Minnesota no.	Number of plots and acre yield												Number of years grown and yield in comparison with standard variety for comparable years	
			1927		1928		1929		1930		1931		Average yield, 1927–31			
			Plots	Yield	Plots	Yield	Plots	Yield	Plots	Yield	Plots	Yield			Years	Yield
Crookston:				*Bu.*		*Bu.*		*Bu.*		*Bu.*		*Bu.*	*Bu.*			*Pct.*
Manchuria	2330	184	3	26.0	---	(2)	3	32.1	3	34.0	3	39.9	33.0		4	88.4
Glabron	4577	445	3	27.6	---	------	3	33.5	3	35.7	3	38.1	33.7		4	90.4
Velvet	4252	447	3	32.8	---	------	3	29.1	3	36.7	3	41.3	35.0		4	93.7
Trebi [1]	936	448	3	36.8	---	------	3	33.1	3	32.5	3	46.9	37.3		4	100.0
Manchuria×Smooth Awn	4667	457	3	25.9	---	------	3	40.1	3	35.9	3	45.7	36.9		4	98.9
Smooth Awn×Manchuria	5998	462	3	31.9	---	------	3	48.5	3	35.2	3	48.6	41.1		4	110.0
Peatland	5267	452	3	39.8	---	------	3	33.7	3	29.0	3	41.6	36.0		4	96.5
Svansota	1907	440	3	34.2	---	------	3	39.5	3	38.6	3	40.5	38.2		4	102.3
Colsess	2792	461	3	28.1	---	------	3	31.5	3	27.9	3	36.5	31.0		4	83.1
Svanhals×Lion	5999	474	---	------	---	------	3	35.3	3	32.1	3	37.6	------		3	93.3
Do	6000	475	---	------	---	------	3	39.5	3	36.7	3	44.1	------		3	106.9
Heinrich's	------	465	---	------	---	------	---	------	---	------	3	33.3	------		1	71.0
Wisconsin Pedigree 38	5105	529	---	------	---	------	---	------	---	------	3	49.9	------		1	106.4

[1] Standard variety with which others are compared.
[2] No yields are reported at Crookston in 1928, because of a crop failure.

MISSOURI

AGRICULTURAL EXPERIMENT STATION, COLUMBIA

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The yields reported from Missouri are from nursery sowings at Columbia and from plot tests elsewhere (table 13). In the plot tests over the State, Trebi was the leading variety. It also showed up well in the nursery tests at Columbia. Although its yield was low in 1931, it was the leading variety in 1930. Some of the smooth-awned sorts showed promise in the nursery. Trebi is recommended to growers and should be seeded in March at the rate of 2 bushels per acre.