

COOPERATIVE CEREAL INVESTIGATIONS - 1955

EXPERIMENTS WITH BARLEY

Experiments with barley at the Dickinson Experiment Station in 1955 included varietal field plot trials of thirteen varieties and selections; the Great Plains Barley Nursery containing twenty entries; and the Dickinson Station Barley Nursery which included nineteen entries.

BARLEY VARIETAL TRIALS

Highest yielding entries in the 1955 barley varietal trials at Dickinson were: Husky and Kindred x Titan, B103, both averaging 48.6 bushels per acre; Tregal, which produced an average yield of 45.6 bushels per acre; Titan, which yielded 43.3 bushels per acre; and Hannchen which averaged 42.4 bushels per acre.

Barley yields were excellent in this area in 1955, being higher than for any year in the past decade excepting for 1948.

Data from the 1955 barley variety trials at Dickinson are presented in [Table 9](#).

Comparative yields from the barley variety trials for the past ten years are summarized in [Table 10](#).

BARLEY NURSERY TRIALS

High yielding entry in this years Uniform Great Plains Barley Nursery was Dekap, a new variety introduced from Transcaucasia, with an average yield of 68.5 bushels per acre. The next highest yielding entry, a Trebi x Spartan cross averaging nearly 10 bushels per acre less at 58.8 bushels per acre.

In this years Station Barley Nursery, Husky was top yielding entry with an average of 65.4 bushels per acre, followed by Dix 45-15, Kindred x Titan (T127-3-2), and Vantage, all yielding above 60.0 bushels per acre.

Data from the 1955 barley nursery trials are summarized in Tables [11](#) and [12](#).

Table 9 - Agronomic Data from Barley Variety Trials - 1955										
Date Seeded - 4-18; Date Emerged - 5-5; Rate - 5 pecks per acre; Plot Size - 1/66 acre										
Description	C.I. or N. No.	Yield - Bu. per acre				Test Wt.	Dates		Ht. In.	Rank
		1	2	3	Av.		1st Awns	Ripe		
Kindred	6969	41.3	41.3	28.9	37.2	47.5	6-28	7-28	33	11
Kindred x Titan	B103	57.8	50.9	37.1	48.6	49.5	6-29	7-29	32	2
Tregal	6359	53.0	46.8	37.1	45.6	49.0	6-29	7-29	32	3
Manchuria	244	48.8	35.8	31.6	38.7	49.0	6-29	7-29	33	10
Montcalm	7149	48.8	35.1	33.7	39.2	47.0	6-29	8-1	35	7
Husky	---	59.1	44.7	42.0	48.6	46.0	6-29	8-2	34	1
Vantage	7324	50.2	37.1	30.3	39.2	47.5	6-30	8-2	32	8
Trebi	936	45.4	26.1	20.6	30.7	49.5	6-30	8-2	33	13*
Hannchen	531	53.6	36.5	37.1	42.4	48.5	6-30	8-3	34	5
Dix 45-15	45-15	36.5	26.1	30.3	31.0	44.0	7-6	8-3	33	12*
Dix 45-297	45-297	48.8	31.6	35.8	38.7	48.5	7-1	8-5	28	9
Dix 45-435	45-435	48.8	33.0	39.2	40.3	49.0	6-25	8-2	29	6
Titan	7055	56.4	33.7	39.9	43.3	51.0	6-29	8-3	33	4

*Rather thin stands in replicates 2 & 3 for both these varieties.

Table 10 - Comparative Yields - Barley Varietal Trials - 1946-1955 with Averages since 1946

Variety	Yields in Bushels per acre										Averages								
	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1954 to 1955	1953 to 1955	1952 to 1955	1951 to 1955	1950 to 1955	1949 to 1955	1948 to 1955	1947 to 1955	1946 to 1955
Kindred	18.0	35.4	59.7	6.5	33.2	23.1	31.4	32.8	17.4	37.2	27.3	29.1	29.7	28.4	29.2	25.9	30.2	30.7	29.5
Tregal	24.7	41.2	62.2	10.7	45.8	40.3	33.7	32.8	23.1	45.6	34.4	33.8	33.8	35.1	36.9	33.1	36.8	37.3	36.0
Manchuria	20.1	38.2	52.9	3.9	32.1	34.1	27.8	36.1	21.3	38.7	30.0	32.0	31.0	31.6	31.7	27.7	30.9	31.7	30.5
Montcalm	28.4	31.7	55.4	7.8	30.5	27.9	25.1	30.1	17.2	39.2	28.2	28.8	27.9	27.9	28.3	25.4	29.2	29.4	29.3
Trebi	25.7	47.3	63.7	6.9	37.1	34.8	29.9	27.7	21.0	30.7	25.9	26.5	27.3	28.8	30.2	26.9	31.5	33.2	32.5
Hannchen	27.4	39.2	49.8	12.0	34.8	44.7	34.7	28.2	21.5	42.4	32.0	30.7	31.7	34.3	34.4	31.2	33.5	34.1	33.5
Titan				10.5	44.7	34.2	24.6	37.0	19.6	43.3	31.5	33.3	31.1	31.7	33.9	30.6			
Vantage				10.7	36.5	39.8	33.0	15.5	23.8	39.2	31.5	26.2	27.9	30.3	31.3	28.4			
Dix 45-15							32.8	32.8	20.3	31.0	25.7	28.0	29.2						
Dix 45-297							31.9	31.3	22.4	38.7	30.6	30.8	31.1						
Dix 45-435							26.3	36.4	26.7	40.3	33.5	34.5	32.4						
Kindred x Titan B103								36.1	22.4	48.6	35.5	35.7							

Table 11 - Agronomic Data from The Great Plains Barley Nursery - 1955

Date Seeded - 4-16; Date Emerged - 5-2; Rate - 5 pecks; Plot Size - 3' x 16'

Description	C.I. No.	Yield - Bu. per Acre				Test Wt.	Dates		Ht. In.	Stem Rust %
		1	2	3	Av.		1st Head	Ripe		
Flynn I	5911	47.0	42.3	46.3	45.2	46.5	6-21	7-30	29	10
Spartan	5027	32.5	33.3	35.5	33.8	51.5	25	29	35	10
Munsing	6009	53.0	43.8	55.0	50.6	52.0	25	21	26	50
Titan	7055	42.0	38.8	44.8	41.9	48.0	27	23	31	25
Gem	7243	44.0	41.0	46.8	43.9	43.0	21	25	27	10
Otis	7557	37.5	38.8	40.3	38.9	52.5	21	25	23	T
Custer	8053	44.0	43.8	50.8	46.2	47.0	25	25	29	50
Utah BC-4-68	8054	42.8	36.0	43.0	40.6	47.0	21	25	28	50
Atlas	4118	43.5	46.3	43.5	44.4	47.5	20	25	31	50
Atlas x rr	9534	44.0	52.5	62.5	53.0	46.5	20	22	26	25
Hiland	9530	41.0	49.5	46.3	45.6	45.0	27	30	31	25
S. D. 675	9546	44.5	43.0	36.8	41.4	46.5	28	25	35	T
S. D. 1365	9547	42.3	58.8	42.0	47.7	49.5	30	8-1	35	T

N. D. B106	9196	29.8	37.5	45.8	37.7	46.0	25	7-25	26	T
P. I. 168250	7837	43.3	53.3	55.3	50.6	52.5	25	26	28	T
Dekap	3351	70.5	66.3	68.8	68.5	51.5	27	30	30	T
Trebi x Spartan	10003	62.3	57.8	56.3	58.8	54.0	25	29	27	T
Spartan x Munsing	10004	41.3	38.5	46.3	42.0	52.5	27	30	36	T
Feebar x Trebi	10005	51.3	43.0	46.3	46.9	45.0	24	25	29	T
C. I. 7114 x Velvon II	10006	62.0	46.0	57.5	55.2	50.0	20	25	30	T

Table 12 - Agronomic Data from The Station Barley Nursery - 1955

Date Seeded - 5-16; Date Emerged - 6-2; Rate - 5 pecks; Plot Size - 3' x 16'

Description	C.I. No.	Yield - Bu. per Acre				Test Wt.	Dates		Ht. In.
		1	2	3	4		1st Head	Ripe	
Comp cross 6725	Dix 45-15	62.5	63.8	61.3	62.5	49.5	6-20	7-21	31
Do	Dix 45-297	56.3	43.5	43.5	47.8	49.0	25	25	34
Do	Dix 45-435	65.0	61.0	42.0	56.0	49.5	23	30	34
Vantage	7324	71.3	65.0	43.8	60.0	49.5	27	8-4	37
Trebi	936	67.0	54.0	39.8	53.6	47.0	29	8-1	39
Kindred	6969	75.0	52.5	47.5	58.3	47.0	23	7-25	35
Manchuria	244	70.8	56.3	44.5	57.2	51.5	21	27	30
Steigum	907	47.5	48.0	35.5	43.7	48.5	30	8-4	35

Spartan	5027	66.3	61.3	36.3	54.6	48.0	27	7-29	37
Montcalm	7149	49.3	53.8	43.3	48.8	49.0	21	29	33
Titan	7055	43.3	45.8	39.5	42.9	45.5	29	29	41
Tregal	6359	51.0	55.0	37.5	47.8	48.5	26	28	41
Hannchen	531	42.5	53.8	49.8	48.7	51.0	30	25	37
Otis	7557	36.6	54.3	40.0	43.5	47.0	27	26	35
Kindred x Titan	T-55-3-7	45.5	60.3	43.3	49.7	50.0	30	25	37
Do	T-127-3-2	63.8	55.0	63.3	60.7	46.0	27	30	36
Husky	---	71.8	65.5	58.8	65.4	47.0	30	8-4	34
Sanalta	6087	63.8	51.5	55.0	56.8	46.0	7-6	5	40
Galore	7150	71.3	52.8	50.0	58.0	44.5	6-30	4	39

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