

Maturity Ratings of
Corn Hybrids

Registered for Sale in
Minnesota in 1944

•
R. F. Crim, H. K. Hayes, E. H. Rinke
R. E. Hodgson, R. O. Bridgford
and R. S. Dunham



Agricultural Experiment Station

UNIVERSITY OF MINNESOTA

CONTENTS

	Page
Map of corn maturity zones.....	4
Index of hybrid designation in tables and name of hybrid producer	8
Classification for maturity of hybrids registered for sale in the Southern zone	9
Classification for maturity of hybrids registered for sale in the South Central zone.....	14
Classification for maturity of hybrids registered for sale in the Central zone	16
Classification for maturity of hybrids registered for sale in the North Central zone	17
Classification for maturity of hybrids registered for sale in the Northern zone	19

Maturity Ratings of Corn Hybrids Registered for Sale in Minnesota in 1944

R. F. Crim, H. K. Hayes, E. H. Rinke, R. E. Hodgson,
R. O. Bridgford, R. S. Dunham¹

HYBRID CORN varieties of commercial seed companies and experiment station origin that were registered for sale in Minnesota for the 1944 growing season were classified for maturity. The maturity trials were conducted under the direction of the Minnesota Agricultural Experiment Station in cooperation with the Weed and Seed Division of the State Department of Agriculture, Dairy, and Food. All hybrids were grown in replicated field trials and tested in the zones in which they were registered for sale. The moisture content at the time of husking was determined. The comparison of moisture content at husking time seems to be the most desirable method that can be used to determine the adaptability of hybrids to the various corn-growing areas of Minnesota. A map indicating the five corn maturity zones of the state is presented on page 4.

SEED FOR THE TRIALS was obtained by the seed and weed inspectors, State Department of Agriculture, Dairy, and Food. Each hybrid was planted in three replications in trials in each of three different counties located in the maturity zone in which the hybrid was registered for sale, except in the Northern zone where trials were made in Marshall County in 1943 and 1944. Each plot was harvested separately and moisture percentages were determined at the time of harvest.

Data from each trial within a maturity zone were averaged, and if a hybrid was tested in the same zone for three years or two years, an average per cent of moisture for the period was obtained. The hybrids tested in a zone

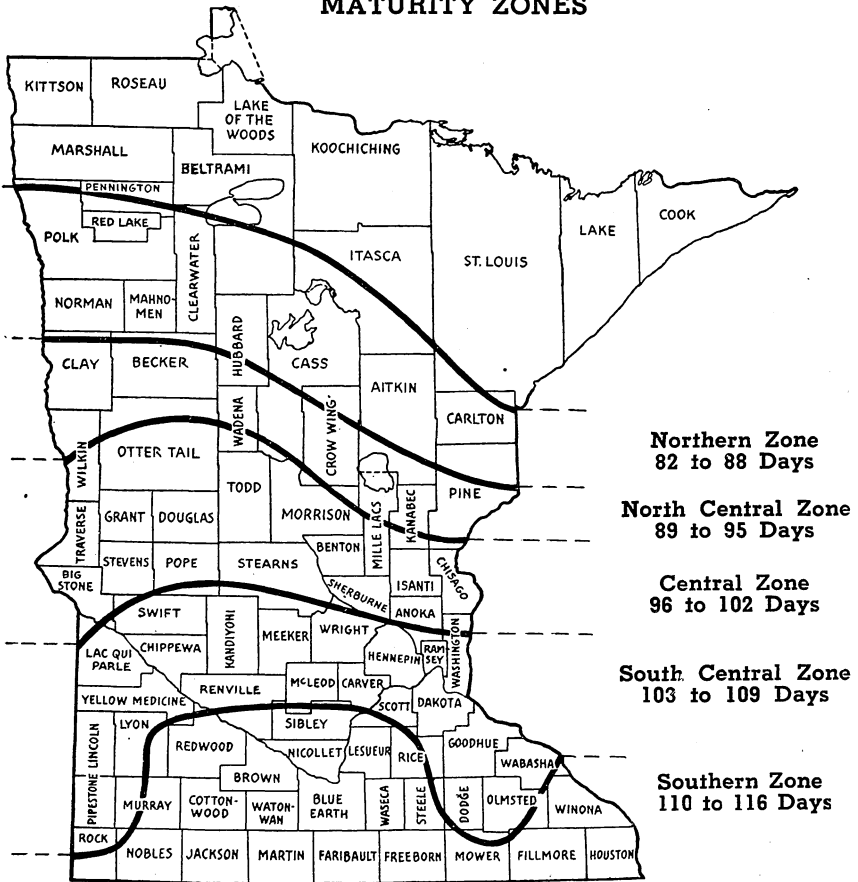
were arranged in order according to their average moisture percentages for the years tested.

An average least significant difference in moisture percentage was calculated to give odds of 19 to 1 that a difference as great as this was a true difference. The calculated significant difference was used to aid in establishing maturity classes.

In all studies Minhybrids adapted to a particular zone were used as standards in the comparisons. Their moisture percentages at husking, and the calculated levels of significance for differences in moisture content at the 5 per cent level, are given in table 1 to aid in setting up class centers for days of maturity. The days of maturity

¹ Acknowledgment is made to the State Department of Agriculture, Dairy, and Food for collecting samples from seed stocks offered for sale and for aid in financing the labor costs of seed preparation, planting, and harvesting. The Minnesota Agricultural Experiment Station assumes entire responsibility for the analysis of the data.

MATURITY ZONES



Zones indicate the approximate number of days growing season that may be expected from emergence after planting to maturity, the stage of being well dentured before a killing frost.

given the various hybrids were arranged on the basis of the adaptation of the various Minhybrids to the earlier, later, or central region of a zone. For example, in the Central zone Minhybrids 600, 601, 603, and 604 were used as standards in previous years. Since Minhybrids 600 and 601 that were adapted to the earlier region of the 600 zone are no longer available, Minhybrids 603 and 604 have been the only Minhybrids available each year. Both of these hybrids are best adapted to

the southern part of the Central and the northern half of the South Central zone, Minhybrid 603 being rather consistently somewhat higher in moisture content than 604.

Besides growing the Minhybrids given in table 1 as standards, Minhybrids considered adapted to the zone south of the zone where trials were being conducted have been included also. Thus in 1944, for example, Minhybrid 700 was included in the trials carried out in the Northern zone; in

Table 1. Average Moisture Percentages for 1942-44, 1942-43, 1942 and 1944, and for 1944 of Minhybrid Varieties and the Least Significant Differences That Were Used to Establish Maturity Classes for Each of the Five Corn Maturity Zones

Zone	Minhybrid	Average per cent moisture				Maturity rating in days
		1942-44	1943-44	1942, 1944	1944	
SOUTHERN	Minhybrid 404	29.0	30.5	30.8	35.6	
	Minhybrid 405	30.3	31.6	31.9	36.1	
	Averages	29.7	31.1	31.4	35.9	= maturity rating of about 110-114 days
	Least significant differences at 5 per cent point	1.2	1.7	1.4	2.4	
SOUTH CENTRAL	Minhybrid 301	30.2	28.1	32.2	30.0	
	Minhybrid 500	29.4	26.6	32.5	30.0	
	Minhybrid 502	29.5	27.9	31.9	31.2	
	Averages	29.7	27.5	32.2	30.4	= maturity rating of about 104-108 days
	Least significant differences at 5 per cent point	1.0	1.2	1.3	1.9	
CENTRAL	Minhybrid 603	37.3	35.9	38.6	37.0	
	Minhybrid 604	36.1	34.0	38.3	36.4	
	Averages	36.7	35.0	38.5	36.7	= maturity rating of about 97-101 days
	Least significant differences at 5 per cent point	1.2	1.6	1.0	1.5	
NORTH CENTRAL	Minhybrid 700	37.8	39.3	38.7	42.7	
	Minhybrid 701	38.3	40.1	39.2	43.9	
	Minhybrid 702	37.0	38.3	38.2	42.2	
	Averages	37.7	39.2	38.7	42.9	= maturity rating of about 88-92 days
	Least significant differences at 5 per cent point	1.3	1.9	1.2	2.0	
NORTHERN	Minhybrid 800	38.4	40.9	38.0	42.4	= maturity rating of about 86-90 days
	Least significant differences at 5 per cent point	0.8	1.1	0.9	1.4	

the North Central zone Minhybrid 602 was included; in the Central zone Minhybrids 702, 703, 705 adapted to the North Central and Minhybrids 500, 502, 503, 504, and 505 adapted to the South Central zone were included in the trials; in the South Central zone Minhybrids 602, 604, and 404 were grown; and in the Southern zone Minhybrids 500 and 301 were grown. In general, the various Minhybrids retained the same relative positions for maturity regardless of the zone in which the test was conducted. When a hybrid considered adapted to a particular zone, for example, the Central zone, is grown in the North Central, it usually is classified a few days earlier in maturity than in the zone where it appears to be best adapted. In

a somewhat similar manner when a hybrid is grown in the zone immediately south of the one where it seems best adapted, it is classified a little later for days of maturity than in the zone where it is best adapted.

Class centers in moisture content for three-year averages have been separated by the calculated least significant difference in moisture content. In some cases three classes near the standards have been separated by only a single day for the class centers. This has helped materially to give a classification that has seemed to be more consistent with the known maturity relationships of the standard Minhybrids included in the various trials.

In some cases where the calculated least significant difference was rather

large, where data for three seasons were not available, it seemed desirable to use class centers that differed by about two thirds of the least significant difference. In practically all cases, however, when Minhybrids have been grown out of the zone of their adaptation, they have either received the same classification for days of maturity as in the zone of their adaptation, or they have been classified a few days later in maturity in the zone south of the one where they are best adapted, or a few days earlier in maturity when tested in the zone immediately north of the one of their adaptation. Thus, when a hybrid is tested in a zone and proves clearly to be too late to be placed in that zone for days of maturity, frequently it will be classified even later in days of maturity if it is tested in the zone immediately south of the one in which the original test has been carried out.

For each of the zones a brief explanation of the classification for days of maturity will be given. This will emphasize the method of using Minhybrids of known maturity as a basis for the classification of other hybrids.

In the Southern zone for 1942-44 inclusive, Minhybrid 405 had an average moisture content at husking of 30.3 per cent. This hybrid has been considered to be well adapted to the Southern zone and was classified as 110-114 days in maturity, the same maturity rating given in 1943. Minhybrids 403 and 404 had a lower moisture content for the three-year period than any other hybrids tested, with average moisture contents of 28.5 and 29.0 per cent, respectively. Ninety-seven of the 108 hybrids tested for the three years had higher moisture percentages at husking than Minhybrid 405, and 55 of these were given maturity ratings of 116-120 days or higher.

For 1943-44 the calculated least significant difference was 1.7. Class centers for this two-year period were

separated by 1.1 per cent of moisture. Minhybrid 405 was classified as 110-114 days in maturity with a moisture content of 31.6 per cent. The lowest moisture content was obtained from Minhybrid 500 with 28.3 per cent and only four other hybrids and Murdock ranked lower than Minhybrid 405 in moisture content, two of these being Minhybrids 403 and 404. Minhybrid 406 gave a moisture content of 32.4 per cent and Minhybrids 408 and 407 gave moisture percentages of 33.1 and 33.5 per cent, respectively. On this basis Minhybrid 406 was classified as 111-115 days in maturity and Minhybrids 407 and 408 as 113-117 days, not greatly different from the classification given in 1943. Thirty-nine hybrids were given maturity ratings of 115-119 days or higher and 26 of these were rated as 117-121 days or higher.

Thirteen hybrids were grown in 1942 and 1944, including Minhybrids 403, 404, and 405. All hybrids except one were higher in maturity than the three Minhybrids and five were given maturity ratings of 117-121 days or higher.

The calculated least significant difference in 1944 was 2.4. Class centers were separated by 1.6 per cent, as this gave a satisfactory maturity rating for the Minhybrids that were tested for a three-year period. Minhybrids 500, 503, 504, and 505 were included in the 1944 trials, the moisture content at husking of Minhybrid 500 being 32.7 per cent, while 503, 504, and 505 gave moisture percentages of 34.9, 33.4, and 34.8, respectively. Minhybrids 404 and 405 had somewhat higher values and on the basis of 1944 data were given maturity ratings of 110-114 days, while Minhybrids 406, 407, and 408 had moisture percentages of 36.9, 37.6, and 37.1, respectively, and for the single season would have received maturity ratings of 112-116 days. Thirty-two hybrids were given maturity ratings of 116 to 120 days or higher.

In the 1944 South Central zone trials

48 hybrids were tested which had not previously been tested in this zone. The calculated significant difference in moisture content of 1.9 per cent was rather large to use in establishing class centers and two thirds of this value, or 1.3 per cent, was used to set up differences between class centers for adjacent classes. All Minhybrids adapted to the zone were included in the 1944 trials. Minhybrid 602 gave the lowest moisture content of any Minhybrid and appeared clearly to be adapted to an earlier zone. Minhybrid 504 had the highest moisture content, giving a value of 33.7 per cent.

There were only a few hybrids in the Central zone that were tested only in 1943-44 and the calculated least significant difference of 1.6 per cent was rather large. Minhybrids 705, 603, 604, 607, 608, and 500 and seven other varieties were grown. Minhybrid 705 had the lowest moisture percentage of 30.2 per cent, while Minhybrid 500 had a moisture percentage of 37.4. Minhybrids 607 and 608 were somewhat lower in moisture content than 604 and significantly lower than Minhybrid 603. Class centers for these two years differing by a moisture percentage of 1.0 gave a reasonable classification.

Twenty-two hybrids were tested for the first time in 1944 in the Central zone. Minhybrids 702, 703, and 705, which are considered to be adapted to the North Central zone, had the lowest moisture content of any hybrids in the trials, the lowest content being that of 703 or 29.9 per cent. Minhybrids 500 and 504 had a moisture content of 37.2 and 37.1 per cent, respectively; Minhybrids 502 and 505 contained 37.9 and 38.1 per cent; and Minhybrid 503 had a moisture content of 39.3, which would classify it with a maturity of 105-109 days. Class centers differing by one per cent were used in the classifications.

In the North Central zone for 1944 the least significant difference was 2.0. Minhybrids 700, 701, 702, 703, 706, and

602 were grown. Minhybrid 703 had the lowest moisture content of the Minhybrids, giving 41.3 per cent. Minhybrids 706 and 701 had the highest moisture percentage of the Minhybrids, giving values respectively of 44.3 and 43.9. Minhybrid 602, adapted to the Central zone, was high in moisture content with a reading of 47.8 per cent. Class centers differing by 1.3 were used for the classification. The mean center class for 42.3-43.5, containing Minhybrids 700 and 705, was given a maturity rating of 88-92 days. On the basis of the classification used, Minhybrid 602 would have received a maturity rating of 95-99 days, thus being several days earlier than its rating in the Central zone of 99-103 days.

Minhybrid 800 has been used as a standard in the trials made in the Northern zone and has been included in the trials all three years. It is somewhat later than is most desirable for this zone. For the three-year period 1942-44 it has been given a maturity rating of 86-90 days, the highest rating that can be given for a hybrid in this zone. Minhybrid 700 had a moisture content of 39.2 per cent, which would give a rating of 87-91 days, a slightly earlier rating than received in the North Central zone.

For the years 1943-44 Minhybrid 800 had a moisture content of 40.9 and received a rating of 86-90 days. It was used as a standard of comparison for this zone. Minhybrid 700 had a moisture content of 41.4 per cent and in these two years would have been eligible to be classified in this zone by the classification used.

There were two hybrids that were grown only in 1942 and 1944 in addition to the Minhybrids. Minhybrid 800 with a moisture content of 38.0 was given a rating of 86-90 days. As Minhybrid 800 is fully as late in maturity as is desirable, and perhaps later, one hybrid received a classification that placed it in the North Central zone.

In the Northern zone in 1944 the moisture content at husking was higher than in other tests and probably the data are less reliable than when moisture content is lower. In this 1944 test Minhybrid 801 had a moisture content of 40.1, this being the lowest moisture

content of any Minhybrid tested. Minhybrid 800, with a moisture content of 42.4 per cent, was not greatly different from 700, 702, and 703. It was given a maturity rating of 86-90 days and was used as the basis for classifying other hybrids.

INDEX OF HYBRIDS AND PRODUCERS

Hybrid Designation	Names of Producer
Beeghly	Milford Beeghly, Pierson, Iowa
Brookfield	Brookfield Seed Co., Hector, Minn.
Carlson	Carlson Hybrid Corn Co., Audubon, Iowa
Corn Master	W. O. McCurdy & Sons, Fremont, Iowa
DeKalb	DeKalb Agr. Assoc., DeKalb, Ill.
Eggerth	Charles Eggerth, Swea City, Iowa
Epley	Epley Bros., Shell Rock, Iowa
Farmers	Farmers Hybrid Seed Corn Co., Hampton, Iowa
Flaat Nodak	Flaat Farm Supply Co., Grand Forks, N. D.
Funk Bros.	Funk Bros. Seed Co., Belle Plaine, Iowa
Grinnellian	Ahrens Hybrid Seed Corn Co., Grinnell, Iowa
Gold Seal	Cargill Inc., Minneapolis, Minn.
Gurneys Golden	Gurneys Inc., Yankton, S. Dak.
Gurneys Silver	Gurneys Inc., Yankton, S. Dak.
Haapala	Levi Haapala and Sons., Dassel, Minn.
Henry Field	Henry Field Seed Co., Shenandoah, Iowa
Hibbs	L. T. Hibbs and Sons, Marshalltown, Iowa
Iowearth	Michael-Leonard Seed Co., Sioux City, Iowa
Jacques	Jacques Seed Co., Prescott, Wis.
Kingscrost	Northrup King & Co., Minneapolis, Minn.
Knudsen	F. N. Knudsen, Kanawha, Iowa
Lowe	Lowe Seed Co., Aroma Park, Ill.
Master	Farmer Seed & Nursery Co., Faribault, Minn.
Matheson	L. V. Matheson, Buffalo Center, Iowa
McNeilly	J. R. McNeilly, Maquoketa, Iowa
Midwest	Midwest Hybrid Producers Co., Grinnell, Iowa
Minhybrid	Minnesota Agr. Expt. Sta., St. Paul, Minn.
Minn. Seed Co.	Minn. Seed Co., Faribault, Minn.
Minowa	Henry Leitschuh, Sleepy Eye, Minn.
Mohawk	Nicollet Hybrid Seed Co., St. Peter, Minn.
Mullins	Mullins Hybrid Corn Co., Corwith, Iowa
Newday	Newday Seeds, Inc., Fargo, N. Dak.
Parcaut	Frank Parcaut, Sutherland, Iowa
Pride	Twin City Seed Co., Minneapolis, Minn.
Pfister	Pfister Associated Growers, Inc., El Paso, Ill.
Pioneer	Pioneer Hi-bred Corn Co., Des Moines, Iowa
Pointer	Pointer Hybrid Corn Co., Shakopee, Minn.
Quirams	Quirams Seed Corn Farms, Waterville, Minn.
Reid Bred	Reid National Corn Co., Anamosa, Iowa
Reid National	Reid National Corn Co., Anamosa, Iowa
Thompson	Thompson Hybrid Corn Co., Belmond, Iowa
Todd	Lester Todd & Sons, Altura, Minn.
Turner	Turner Hybrid Seed Corn Co., Grand Junction, Iowa
Vinton	Vinton Hybrid Seed Corn Co., Vinton, Iowa
Wisconsin	Wisconsin Agr. Expt. Sta., Madison, Wis.

MATURITY RATINGS OF CORN HYBRIDS

Table 2. Corn Hybrids Registered for Sale in the Southern Zone and Tested
 Either in Three-year Trials, Two-year Trials, or Only in 1944*

Classes for per cent moisture	Variety name	Average per cent moisture 1942-43-44	Maturity rating in days Minn. Expt. Sta.
27.9-29.0	Minhybrid 404	29.0	108-112
29.1-30.2	Jacques 1102J	29.3	109-113
	Pride D54	29.4	
	Pioneer 373	29.5	
	Wisconsin 570	29.9	
	Brookfield 74	30.0	
	Jacques 1104J	30.2	
30.3-31.4	Minhybrid 405	30.3	110-114
	Pioneer 353A	30.3	
	Wisconsin 606	30.3	
	Jacques 1107	30.3	
	Haapala Hybrid Silo No. 30	30.5	
	Reid National 112 ₂	30.7	
	Jacques 1108J	30.9	
	Pioneer 353	31.0	
	Reid National 114 ₃	31.1	
	Turner N15	31.1	
	Pride B58	31.1	
	Master F105	31.2	
	31.5-32.6	Wisconsin 648	
Reid National 110		31.5	
Funk Bros. G7		31.5	
Reid National 110 ₂		31.6	
Iowearth W16		31.6	
Reid National 112		31.7	
Pioneer 322		31.7	
DeKalb 410		31.8	
Wisconsin 645		31.8	
Thompson 26		31.9	
Brookfield 37		32.0	
Wisconsin 640		32.4	
Iowearth A		32.4	
Thompson 36		32.5	
Mullins Silo		32.6	
Jacques 1154	32.6		
32.7-33.8	Master F101	32.9	114-118
	Reid National 116W	33.0	
	Kingscrot KR2	33.1	
	Wisconsin 676	33.2	
	McNeilly 1940	33.3	
	Mullins J25	33.3	
	Vinton 942	33.4	
	Vinton V32	33.4	
	Mullins J30	33.4	
	Turner N15A	33.5	
	Pfister 268	33.6	
	McNeilly 942	33.6	
	Iowearth AF11	33.6	
	Farmers 388	33.6	
	Pfister 266	33.7	
	Thompson 52	33.8	
Turner 939	33.8		
33.9-35.0	Thompson 45	33.9	116-120
	Reid National 110A ₁	33.9	
	Reid National 114 ₂	33.9	
	Vinton 939	34.0	

* Location of trials
 1942—Faribault, Fillmore, and Murray counties
 1943—Waseca Branch Station, Jackson and Redwood counties
 1944—Waseca Branch Station and Jackson County

Table 2. Corn Hybrids Registered for Sale in the Southern Zone (Continued)

Classes for per cent moisture	Variety name	Average per cent moisture 1942-43-44	Maturity rating in days Minn. Expt. Sta.
33.9-35.0 (Continued)	DeKalb 404A	34.0	116-120
	Jacques 1206J	34.0	
	Henry Field 116L	34.0	
	Turner L103	34.0	
	Master F106	34.1	
	Reid Bred FO	34.1	
	Jacques 1155J	34.1	
	McNeilly 939	34.3	
	Wisconsin 696	34.4	
	Wisconsin 690	34.4	
	DeKalb 504	34.4	
	Thompson 27	34.5	
	McNeilly 1951A	34.6	
	Henry Field 116	34.8	
	Lowe 16	34.8	
	Wisconsin 694	35.0	
	Pride D73	35.0	
	Lowe 24	35.0	
	Kingscrot KY	35.0	
35.1-36.2	DeKalb 615	35.1	118-122
	Pfister 366	35.2	
	Thompson 47	35.2	
	Thompson 46	35.2	
	Jacques 1203J	35.2	
	DeKalb 422	35.3	
	Wisconsin 692	35.4	
	Funk Bros. G29	35.5	
	Pioneer 330	35.7	
	Henry Field 116R	35.7	
	Funk Bros. G114	35.7	
	Pfister 380	35.9	
	Iowealth 16	35.9	
	Pfister 280	35.9	
	Iowealth AQ	36.1	
	Funk Bros. G16	36.2	
	Reid National 117R	36.2	
Reid National 118R	36.2		
Wisconsin 695	36.2		
36.3-37.4	Pfister 360	36.3	120-124
	Turner N14	36.4	
	Lowe 14	36.4	
	Reid National 116R	36.7	
	Pfister 260	36.7	
	Funk Bros. G66	36.8	
	Iowealth BC4	36.8	
	Reid National 116	36.9	
	Reid National 117 ₁	37.0	
	McNeilly 1940A	37.2	
	Reid National 118	37.3	
DeKalb 606	37.4		
37.5-38.6	Iowealth 25	37.7	122-126
Least significant difference at 5 per cent point		1.2	
		Average per cent moisture 1943-44	
29.5-30.5	Pride D57	29.6	108-112
	Minhybrid 404	30.5	
30.6-31.6	Murdock	31.2	110-114
	Pioneer 377	31.2	
	Minhybrid 405	31.6	
	Pointer 275	31.6	

MATURITY RATINGS OF CORN HYBRIDS

Table 2. Corn Hybrids Registered for Sale in the Southern Zone (Continued)

Classes for per cent moisture	Variety name	Average per cent moisture 1943-44	Maturity rating in days Minn. Expt. Sta.
31.7-32.7	Pride D56	31.9	111-115
	Epley E25	32.1	
	Quirams 73	32.3	
	Minhybrid 406	32.4	
	Quirams 78	32.5	
	Hibbs 942	32.5	
	Reid National 110W	32.6	
	DeKalb Exp. 22	32.6	
32.8-33.8	Reid National 111	32.8	113-117
	Minhybrid 408	33.1	
	Reid National 112L	33.3	
	McNeilly 1938	33.3	
	Jacques 1109	33.3	
	Farmers 214	33.5	
	Hibbs H432	33.5	
	Minhybrid 407	33.5	
	Wisconsin 641	33.6	
	Eggerth C	33.7	
	Reid National 113	33.7	
	Knudsen 390	33.8	
	Jacques 1157J	33.8	
Pride D66	33.8		
33.9-34.9	Pride D62	33.9	115-119
	Reid National 112R	34.0	
	Wisconsin 640A	34.2	
	Parcaut 931A	34.3	
	Haapala Silo 120	34.3	
	Knudsen K60	34.4	
	Reid Bred TN	34.4	
	Hibbs 939	34.6	
	Knudsen 939	34.6	
	Epley Ill. 101	34.7	
	Wisconsin 608	34.8	
	DeKalb 443	34.8	
DeKalb 450	34.8		
35.0-36.0	Farmers 318	35.2	117-121
	Hibbs H65	35.2	
	Knudsen 600B	35.2	
	Pioneer 341	35.3	
	Knudsen K50	35.4	
	Matheson 320	35.5	
	Pioneer 340	35.5	
	DeKalb 458	35.5	
	Jacques 1158J	35.7	
	DeKalb 609	35.7	
	Hibbs H66	35.9	
	Henry Field 100R	35.9	
Farmers 439	36.0		
36.1-37.1	Eggerth Special A	36.8	119-123
	Farmers 322	36.9	
	Gurneys Golden 112	37.0	
	Eggerth A	37.1	
37.2-38.2	Kingscrot KY2	37.2	121-125
	Pfister 4897	37.3	
	Pride D78	37.3	
	Mullins J40	37.6	
	Jacques 1209J	37.7	
	Pfister 5897	37.7	
	Farmers 321A	37.7	
	Farmers 421	38.0	
	Hibbs H67	38.2	
	Least significant difference at 5 per cent point.....		

Table 2. Corn Hybrids Registered for Sale in the Southern Zone (Continued)

Classes for per cent moisture	Variety name	Average per cent moisture 1942 and 1944	Maturity rating in days Minn. Expt. Sta.
30.7-32.0	Pioneer 370	30.8	110-114
	Minhybrid 405	31.9	
32.1-33.4	Haapala 204	33.3	111-115
33.5-34.8	Jacques 1103	33.6	113-117
	Farmers 304A	34.3	
34.9-36.2	McNeilly 1942	35.3	115-119
36.3-37.6	Pride D72	36.6	117-121
	Parcaut Golden King	36.9	
	Jacques 1205J	36.9	
37.7-39.0	Pride D75	38.8	119-123
39.1-40.4	Wisconsin 701	39.3	121-125
Least significant difference at 5 per cent point		1.4	
		Average per cent moisture 1944	
31.9-33.4	Mohawk G55	32.8	106-110
	Mohawk G23	32.9	
33.5-35.0	Murdock	33.6	108-112
	DeKalb 201	34.4	
	Haapala 132	34.6	
	Jacques 1051J	34.7	
35.1-36.6	Pfister 80	35.2	110-114
	Pfister 75	35.5	
	Minn. Seed Co. V193	35.5	
	Minowa 308	35.7	
	Haapala 123	35.7	
	Jacques 1104	35.8	
	Parcaut P10	35.8	
	Knudsen 931	35.9	
	Minhybrid 405	36.1	
	Pfister 77	36.3	
	Pfister 79	36.3	
	DeKalb 241	36.5	
	Reid National 110s	36.5	
	Matheson 230	36.6	
36.7-38.2	Jacques 1108	36.7	112-116
	Gold Seal 110N	36.7	
	Minowa 212	36.8	
	Minhybrid 406	36.9	
	Minhybrid 408	37.1	
	Gold Seal 115N	37.2	
	Pointer 278	37.3	
	Pfister 86	37.3	
	Pfister 374	37.4	
	Minhybrid 407	37.6	
	Eggerth B	37.6	
	Reid National 116A	37.6	
	Pfister 84	37.6	
	Pfister 4710	37.6	
	Matheson 280	37.7	
	Pfister 82	37.7	
	Quirams 84	37.8	
	Knudsen 90B	37.8	
	Master Exp. S7	37.9	
	Quirams 93	38.2	
Matheson 260	38.2		
38.3-39.8	Lowe 6W	38.3	114-118
	Mohawk L76	38.3	
	Lowe 15	38.4	

Table 2. Corn Hybrids Registered for Sale in the Southern Zone (Continued)

Classes for per cent moisture	Variety name	Average per cent moisture 1944	Maturity rating in days Minn. Expt. Sta.
38.3-39.8 (Continued)	Minowa Silo	38.4	114-118
	Thompson 22	38.5	
	Beeghly Iowa 4316	38.5	
	Minowa 110	38.5	
	Pfister 274	38.6	
	Iowearth Ensilage 2	38.6	
	Reid National 104	38.7	
	Matheson 350	38.7	
	Funk Bros. G12	38.7	
	Pfister 6810	38.7	
	Corn Master 111	38.7	
	Brookfield 81	38.7	
	Jacques 1125J	38.8	
	Hibbs H75	38.8	
	Funk Bros. G38	38.9	
	McNeilly 1951	38.9	
	Pioneer 326	38.9	
	Parcaut P3	38.9	
	Jacques 1159	39.0	
	Gurneys Golden 115	39.0	
	Beeghly Iowa 4297	39.0	
	Reid National 115	39.1	
	Turner E7A	39.1	
	Knudsen K16	39.2	
	Turner E7B	39.2	
	Pfister Ens. A	39.4	
	Turner T46	39.4	
	Carlson C5	39.7	
	Turner T26	39.8	
	39.9-41.4	Minowa 310	
Beeghly Iowa 306		39.9	
Farmers 427A		39.9	
Beeghly Iowa 939		40.2	
Parcaut Special A		40.3	
Todd Hybrid Silo		40.3	
Corn Master 99		40.3	
Corn Master 88		40.3	
Turner S56		40.3	
Wisconsin 701A		40.4	
Funk Bros. G31		40.4	
Carlson C8		40.5	
Pfister Ens. B		40.5	
Iowearth Ensilage 3		40.6	
Carlson 939A		40.7	
Carlson C115W		40.7	
Parcaut 942A		40.7	
Pioneer 342		40.8	
Master Exp. S8		40.9	
Carlson C10		41.0	
Reid National 115R		41.0	
Farmers 488		41.1	
Lowe 22		41.2	
Vinton K16	41.3		
41.5-43.0	Iowearth Ensilage 1	41.6	118-122
	Mullins Silo J20	41.8	
	Farmers 321	42.2	
	Carlson C7	42.8	
	Reid National 116	42.8	
43.1-44.6	Jacques 1207	43.2	120-124
	Wisconsin 643	43.5	
47.9-49.4	Reid Bred Six	47.9	126-130
Least significant difference at 5 per cent point		2.4	

Table 3. Corn Hybrids Registered for Sale in the South Central Zone and Tested Either in Three-year Trials, Two-year Trials, or Only in 1944*

Classes for per cent moisture	Variety name	Average per cent moisture 1942-43-44	Maturity rating in days Minn. Expt. Sta.
29.2-30.1	Minhybrid 500	29.4	104-108
	Minhybrid 502	29.5	
	Master F82	29.9	
	Pride C39	30.0	
30.2-31.1	Minhybrid 301	30.2	105-109
	Brookfield 69	30.2	
	Pioneer 355	30.3	
	Brookfield 55	30.3	
	Jacques 1051	30.6	
	Turner E4	30.6	
	Wisconsin 531	30.7	
	Brookfield 66	30.7	
	Pointer 350	30.8	
	Pride B45	31.0	
	Pride D43	31.1	
31.2-32.1	Gold Seal 105N	31.2	106-110
	DeKalb 78	31.2	
	Kingscrot M2	31.3	
	Haapala 202	31.6	
	Vinton V25	31.9	
	Reid National 107W	32.0	
	Pioneer 358	32.0	
Reid National 104W	32.1		
32.2-33.1	Jacques 1050J	32.2	108-112
	Kingscrot KN1	32.4	
	Reid National 105	32.5	
	Vinton V24	32.7	
	DeKalb 240	33.0	
	Iowealth S	33.0	
33.2-34.1	Pointer 270	33.2	110-114
Least significant difference at 5 per cent point.....		1.0	
		Average per cent moisture 1943-44	
25.7-26.8	Pioneer 359	26.2	103-107
26.9-28.0	Pride D44	26.9	104-108
	Minn. 13 U.F.	27.0	
	Pride D43A	27.2	
	Quirams 63	27.7	
	Minhybrid 502	27.9	
28.1-29.2	Minhybrid 301	28.1	105-109
	Quirams 68	28.9	
	Funk Bros. G1A	29.0	
	Minhybrid 505	29.0	
	Minhybrid 503	29.0	
	Epley Ohio M15	29.2	
29.3-30.4	Minhybrid 504	29.5	107-111
	Gold Seal 108N	30.4	
	Kingscrot KO	30.4	
30.5-31.6	Henry Field 100	31.2	109-113
Least significant difference at 5 per cent point.....		1.2	

* Location of trials
 1942—Goodhue, Lac qui Parle, and Meeker counties
 1943—Central Experiment Station, Lac qui Parle and Renville counties
 1944—Central Experiment Station, Lac qui Parle and Renville counties

MATURITY RATINGS OF CORN HYBRIDS

Table 3. Corn Hybrids Registered for Sale in the South Central Zone (Continued)

Classes for per cent moisture	Variety name	Average per cent moisture 1942 and 1944	Maturity rating in days Minn. Expt. Sta.
31.6-32.8	Minhybrid 301	32.2	105-109
32.9-34.1	Minhybrid 403	33.1	106-110
	Pride C53	33.8	
	Wisconsin 525	34.0	
36.8-38.0	Reid National 110 ₁	37.5	112-116
Least significant difference at 5 per cent point.....		1.3	
		Average per cent moisture 1944	
28.5-29.7	DeKalb 302	28.9	101-105
	Pioneer 359A	28.9	
	Henry Field 90	29.6	
	Reid National 106	29.7	
	Jacques 1004	29.7	
29.8-31.0	Jacques 1001	30.0	103-107
	Jacques 1001J	30.0	
	Pioneer 358A	30.1	
	Master Exp. SC5	30.2	
	Funk Bros. G2	30.2	
	Pfister 50	30.8	
	Funk Bros. G4	30.9	
Pioneer 379	31.0		
31.1-32.3	Minhybrid 502	31.2	104-108
	Reid National 97	31.2	
	Pride 45A	31.2	
	Pfister 55	31.5	
	Jacques 1050	31.6	
	Gurneys Silver Hybrid	31.6	
	Gold Seal 103N	31.6	
	Funk Bros. G3	31.7	
32.4-33.6	Haapala 130	32.7	105-109
	Funk Bros. G6	32.8	
	Reid National 108	32.8	
	Turner T12	33.2	
	Pointer A7	33.4	
33.7-34.9	Gurneys Golden 100	34.0	106-110
	Pioneer 381	34.2	
	Pioneer 375	34.3	
	McNeilly 1900	34.5	
	Corn Master 77	34.6	
	Reid National 99A	34.9	
35.0-36.2	Haapala 707W	35.2	108-112
	Reid National 100	35.3	
	Parcaut P5	35.7	
	Reid National 109	36.1	
36.3-37.5	Knudsen 350	36.6	110-114
	Mullins J10	36.7	
	Parcaut P7	37.0	
	Turner T20	37.1	
	Midwest 305	37.2	
	Lowe 51	37.3	
37.6-38.8	Eggerth C plus	38.5	112-116
	Lowe 23	38.5	
	Lowe 19	38.6	

Table 3. Corn Hybrids Registered for Sale in the South Central Zone (Continued)

Classes for per cent moisture	Variety name	Average per cent moisture 1944	Maturity rating in days Minn. Expt. Sta.
38.9-40.1	Grinnellian 328	39.5	114-118
	Eggerth B plus	39.5	
	Gurneys Golden 105	39.6	
	Grinnellian 320	39.8	
Least significant difference at 5 per cent point.....		1.9	

Table 4. Corn Hybrids Registered for Sale in the Central Zone and Tested Either in Three-year Trials, Two-year Trials, or Only in 1944*

Classes for per cent moisture	Variety name	Average per cent moisture 1942-43-44	Maturity rating in days Minn. Expt. Sta.
33.7-34.8	Kingscrot A6	34.6	97-101
34.9-36.0	Pride D33	35.6	99-103
36.1-37.2	Minhybrid 604	36.1	100-104
	Wisconsin 460	36.6	
	Pride D36	36.9	
	Brookfield 44	37.0	
	Minn. Seed Co. V171	37.0	
	Jacques 1003J	37.0	
37.3-38.4	Minhybrid 603	37.3	101-105
	Wisconsin 455	37.4	
38.5-39.6	Gold Seal 100N	39.1	103-107
39.7-40.8	Reid National 95	39.8	105-109
Level of significance at 5 per cent point.....		1.2	
		Average per cent moisture 1943-44	
31.0-31.9	Pride B23	31.1	95-99
32.0-32.9	Kingscrot KA4	32.5	97-101
	Minhybrid 607	32.7	
33.0-33.9	Minhybrid 608	33.9	99-103
	Morris Minn. 13	33.9	
34.0-34.9	Minhybrid 604	34.0	100-104
	Wisconsin 420	34.5	
35.0-35.9	Minhybrid 603	35.9	101-105
36.0-36.9	DeKalb 65	36.4	103-107
	Pointer 345	36.7	
37.0-37.9	Kingscrot KS6	37.2	105-109
Level of significance at 5 per cent point.....		1.6	
		Average per cent moisture 1942 and 1944	
37.0-37.9	Minhybrid 602	37.0	98-102
	Minn. Seed Co. Imp. V170	37.5	
	Haapala 360	37.9	

* Location of trials

1942—Isanti and Otter Tail counties

1943—Morris Branch Station, Otter Tail and Stearns counties

1944—Morris Branch Station, Otter Tail and Stearns counties

Table 4. Corn Hybrids Registered for Sale in the Central Zone (Continued)

Classes for per cent moisture	Variety name	Average per cent moisture 1942 and 1944	Maturity rating in days Minn. Expt. Sta.
38.0-38.9	Pride B38	38.1	100-104
	Kingscrosst D4	38.2	
	Pride D33A	38.2	
	Minhybrid 604	38.3	
	Kingscrosst KS2	38.3	
	Brookfield 54	38.7	
39.0-39.9	Pride B35	39.0	102-106
	Pride D32	39.0	
Least significant difference at 5 per cent point.....		1.0	
		Average per cent moisture 1944	
33.2-34.1	Gold Seal 93N	34.1	95-99
	Jacques 956	34.1	
34.2-35.1	Corn Master 66	34.3	97-101
35.2-36.1	Wisconsin 416	36.0	98-102
36.2-37.1	Brookfield 41	36.2	100-104
	Jacques 957	36.2	
	Minhybrid 604	36.4	
	Gold Seal 95N	36.5	
	DeKaib 58	36.5	
	Master Exp. C3	36.5	
	Jacques 958	36.5	
	Pfister 49	36.8	
	Wisconsin 464	36.9	
	Gold Seal 98N	37.0	
	Master C4	37.1	
Haapala 362	37.1		
37.2-38.1	Master Exp. C2	37.2	101-105
	Pfister 40	37.2	
	Pfister 45	37.3	
38.2-39.1	Quirams 48	38.7	103-107
39.2-40.1	Pointer A2	39.6	105-109
41.2-42.1	Midwest 95	41.9	109-113 not classified
	Reid National 92	68.0	
Least significant difference at 5 per cent point.....		1.5	

Table 5. Corn Hybrids Registered for Sale in the North Central Zone and Tested Either in Three-year Trials, Two-year Trials, or Only in 1944*

Classes for per cent moisture	Variety name	Average per cent moisture 1942-43-44	Maturity rating in days Minn. Expt. Sta.
35.8-37.0	Master F40	36.0	87-91
	Kingscrosst KE1	36.6	
	Minhybrid 702	37.0	
37.1-38.3	Minhybrid 700	37.8	88-92
	Wisconsin 330	38.1	
	Minhybrid 701	38.3	

* Location of trials
1942—Norman, Otter Tail, and Wilkin counties
1943—Becker and Otter Tail counties
1944—Becker County

Table 5. Corn Hybrids Registered for Sale in the North Central Zone (Continued)

Classes for per cent moisture	Variety name	Average per cent moisture 1942-43-44	Maturity rating in days Minn. Expt. Sta.
38.4-39.6	Minn. Seed Co. V125	38.6	89-93
	Jacques 906	38.6	
	Jacques 904	38.7	
	Gold Seal 90N	39.1	
	Wisconsin 355	39.6	
39.7-40.9	Wisconsin 335	39.7	91-95
	Wisconsin 325	39.8	
	Jacques 907	40.2	
	Brookfield 35	40.3	
	DeKalb 66	40.4	
41.0-42.2	Jacques 955J	41.4	93-97
	Jacques 951J	41.7	
Least significant difference at 5 per cent point		1.3	
		Average per cent moisture 1943-44	
36.4-38.2	Minhybrid 703	37.6	87-91
	Haney No. 13 (Mellum)	37.7	
38.3-40.1	Pride D4	38.6	88-92
	Minhybrid 700	39.3	
	Minhybrid 701	40.1	
40.2-42.0	Gurneys Golden 90	41.1	90-94
	Wisconsin 341	41.6	
42.1-43.9	Wisconsin 412	42.6	92-96
	Reid National 90	43.3	
Least significant difference at 5 per cent point		1.9	
		Average per cent moisture 1942 and 1944	
38.1-39.2	Minhybrid 700	38.7	88-92
	Minhybrid 701	39.2	
40.5-41.6	Pride B15	41.3	92-96
Least significant difference at 5 per cent point		1.2	
		Average per cent moisture 1944	
39.7-40.9	Master Exp. N.C.1	39.9	85-89
	Jacques 852	40.6	
41.0-42.2	Minn. Seed Co. Imp. V100	41.4	87-91
	Kingscrot KE2	41.9	
	Minhybrid 702	42.2	
42.3-43.5	Gold Seal 85N	42.5	88-92
	Minhybrid 705	42.6	
	Minhybrid 700	42.7	
	Jacques 853	42.9	
	Corn Master 55	43.3	
43.6-44.8	Brookfield 22	43.8	89-93
	Pfister 30	44.3	
	Minhybrid 706	44.3	
44.9-46.1	Gold Seal 91N	45.3	91-95
	Jacques 908	45.3	
	Pfister 35	45.4	
	Pride B17	45.4	
	DeKalb 56	45.7	
46.2-47.4	DeKalb 54	46.8	93-97
48.8-50.0	Reid National 91	49.6	97-101
Least significant difference at 5 per cent point		2.0	

Table 6. Corn Hybrids Registered for Sale in the Northern Zone and Tested Either in Three-year Trials, Two-year Trials, or Only in 1944*

Classes for per cent moisture	Variety name	Average per cent moisture 1942-43-44	Maturity rating in days Minn. Expt. Sta.
35.4-36.3	Jacques 802	35.4	82-86
	Wisconsin 255	35.4	
	Wisconsin 240	35.6	
36.4-37.1	Wisconsin 279	37.1	84-88
38.0-38.7	Minhybrid 800	38.4	86-90
38.8-39.5	Wisconsin 275	39.4	88-92
Least significant difference at 5 per cent point		0.8	
		Average per cent moisture 1943-44	
37.1-38.1	Jacques 803	37.5	82-86
38.2-39.2	Master F21	38.3	84-88
	Minhybrid 801	38.8	
39.3-40.3	Gurneys Golden 85	40.1	85-89
40.4-41.4	Minhybrid 800	40.9	86-90
Least significant difference at 5 per cent point		1.1	
		Average per cent moisture 1942 and 1944	
36.7-37.5	Pride B3	37.2	85-89
37.6-38.4	Minhybrid 800	38.0	86-90
41.2-42.0	Pride C8	41.8	94-98
Least significant difference at 5 per cent point		0.9	
		Average per cent moisture 1944	
36.1-37.4	Newday 803	37.0	80-84
37.5-38.8	Flaat Nodak 201	37.9	82-86
38.9-40.2	Newday 832	38.9	84-88
	Pride B5	39.7	
	Brookfield 17	39.8	
	Brookfield 15	39.8	
	Kingscrost KF2	40.0	
	Flaat Nodak 301	40.0	
	40.3-41.6	Kingscrost KF1	
Newday 831	40.8		
Newday 872	40.8		
41.7-43.0	Pfister 15	41.9	86-90
	Pride B2	42.3	
	Minhybrid 800	42.4	
	Newday 852	42.5	
	Minn. No. 13 Haney (Mellum)	42.7	
43.1-44.4	Newday 851	43.1	88-92
	Flaat Nodak 401	43.3	
	Pfister 10	43.3	
	Wisconsin 330	44.0	
44.5-45.8	Haapala 354	44.8	90-94
	Wisconsin 335	45.0	
Least significant difference at 5 per cent point		1.4	

* Location of trials

1942—Norman, Otter Tail, and Wilkin counties

1943—Northwest Branch Station, Mahanomen and Marshall counties

1944—Northwest Branch Station, West Polk, East Polk, and Marshall counties