PENNSTATE

College of Agricultural Sciences
Cooperative Extension

Pennsylvania Commercial Hybrid Corn Tests Report

Early medium-season hybrids (Maturity Zone 2) 1993 results

Tests of commercially available corn hybrids are conducted annually at several locations in each of the four maturity zones in Pennsylvania to provide farmers, seed producers, county extension agents, and other interested persons with information about hybrid performance. This report includes both the grain and silage results from the 1993 season.

Tables 1 and 2 contain the combined results for all locations in this zone, except as noted. Those in Table 1 are for the advanced hybrids tested previously for at least one year, and those in Table 2 are for new hybrid entries. New entries are tested for at least one year before being included in the advanced tests. A two-year summary of results for hybrids tested in both 1992 and 1993 growing seasons is given in Table 3. The results for hybrids entered in the silage performance test are given in Table 4.

Procedures

This testing program was available to any producer of hybrid seed corn. For the grain tests, hybrids were planted in paired-row plots of 1/500 of an acre. Each row was overplanted—34 kernels per row, and thinned to a standard count of 48 plants per plot when the corn was 12-18 inches tall. The final population was 24,000 plants per acre. Silage plots were 1/1,000 acre in size, consisting of one row overplanted to 38 kernels and thinned to a final population of 28,000 plants per acre. All entries were replicated three times in each test.

Test plots were planted with modified mechanical planters. Grain-test plots were harvested with a self-propelled combine equipped with electronic instrumentation for determining weight and moisture. Silage plots were harvested with a forage harvester. Grain yields are reported as bushels per acre while grain moisture and erect plants are reported as percentages. Shelled grain yields were standardized at 15.5 percent grain moisture. Percentage of checks for each hybrid was based on the mean of five check hybrids and calculated for moisture, yield, and erect plants. Data such as plant height, ear height, and leaf disease ratings were taken in the field. Disease ratings were based on a scale of 0.5 to 5.0, progressing from little or no disease to premature death.

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Corn Tests Report

(Maturity Zone 1) 1993 results

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FUNK S G 4172	96 9	100 3	101 2	23 5	132 8	96 9	72 0	34 7	2 0
FUNK S G-2093X	96 5	104 0	100 7	23 5	137 7	96 4	85 3	43 0	1 2
ANDERSONS HSX44011	98 0	85 0	102 2	23 8	112 5	97 8	81 7	39 3	2 8
PIONEER 3861	97 8	99 8	100 2	23 8	132 2	95 9	83 0	38 0	2 5
NORTHRUP KING N4242	97 8	106 2	102 2	23 8	140 6	97 8	80 0	39 7	2 5
PIONEER 3751	100 5	101 7	101 1	24 4	134 7	96 7	80 0	36 0	1 7
FUNK S G 4106	100 8	94 7	98 4	24 5	125 4	94 2	74 7	32 3	2 8
AGWAY AG 310	100 8	103 5	100 3	24 5	137 1	95 9	84 3	38 7	1 7
DEKALB DK524	102 5	117 9	100 1	24 9	156 1	95 8	86 0	40 0	2 2
AGWAY AG 394	102 8	103 2	102 3	25 0	136 7	97 9	84 0	38 3	2 7
FUNK S G-4273	103 4	104 9	101 1	25 1	138 8	96 7	75 3	34 7	1 7
AGWAY AG EXP 322	103 4	109 0	100 5	25 1	144 4	96 2	82 0	38 0	1 7
HYTEST HT318	103 5	110 4	99 5	25 1	146 2	95 2	93 0	43 0	1 7
HYTEST HTX7230	103 9	102 6	101 0	25 3	135 9	96 6	79 7	35 7	2 3
NC+ 2309	103 9	105.9	102 8	25 3	140 3	98 4	82 7	38 7	2 5
JACQUES EXP2108	108 9	111 1	102 8	26 5	147 1	98 4	89 3	42 7	1 2
ICI 8562	110 4	110 0	102 8	26 8	145 6	98 4	81 0	39 0	2 5
GRIES GSF4103	110 8	104 9	101 1	26 9	138 9	96 7	80.3	36 7	2 2
MEANS	100 7	101 2	100 9	24 5	134 0	96 6	81 1	38 0	2 2 *
LSD (05)	3 5	7 5	2 7	0 9	9 9	2 5	7 0	5 4	0 6
LOCATION MEANS									
Clearfield	99 9	102 1	102 4	24 3	135 1	97 9	81 1	38 0	
Bradford	90 0	127 9	102 9	21 9	169 4	98 5			
Clarion	98 4	115 4	102 1	23 9	152 8	97 7			
Erie	135 5	81 0	102 1	32 9	107 3	97 7			
Cambria	94 9	107 6	101 3	23 1	142 5	96 9			
Centre	85 7	73 0	94 9	20 8	96 7	90 8			2 2

New Fact Sheets Available

UNIVERSITY PARK (Centre Co.) — Four new fact sheets on nutrient management have recently been added to the Agronomy Facts series.

A three fact sheet series entitled "A Nutrient Management Approach for Pennsylvania" has been prepared by Les Lanyon and Doug Beegle.

The first of these, Agronomy Facts #38-A, is an introduction to the concepts of nutrient management and the nutrient management decision making process. The second fact sheet, Agronomy Facts #38-B. discusses nutrient flows on farms and beyond.

This fact sheet also presents a suggested nutrient management classification scheme for farms that can be used to help determine appropriate management considerations based on the individual characteristics of different farms. The third fact sheet, Agronomy Facts #38-C, focuses on nutrient management decision making. It discusses the decision making process at various levels of management from making long-range strategic decisions to making daily management decisions. An overview of the steps involved in on-farm nutrient management is provided.

A separate fact sheet, entitled "Nutrient Management Legislation in Pennsylvania," Agronomy Facts #40, provides an overview of the recently passed nutrient management legislation in Pennsylvania.

All of these fact sheets will be available at local Penn State Cooperative Extension offices.