



# Pennsylvania Commercial Hybrid Corn Tests Report

College of Agricultural Sciences  
Cooperative Extension

## Late Medium-season hybrids (Maturity Zone 3) 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

## Corn Tests Report

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### Cooperators and locations

Early medium-season hybrids were evaluated with the cooperation of the following persons: Craig Richards, Columbia County; Curt Rakestraw, Lycoming County; Harold Foertsch, Butler County; Bill Hoagland, Mercer County; and Penn State farms, Centre County.

### ADVANCED ENTRIES

Table 1. Early medium season hybrid performances (Maturity Zone 3). Combined Penn State Commercial Advanced Entries (average of all locations). Data under Location Means indicate counties where values were obtained.

BRAND HYBRID	PERCENT OF CHECKS			%H <sub>2</sub> O GRAIN	BU A GRAIN	% ERECT	HEIGHT (IN)		LEAF DISEASE RATING
	H <sub>2</sub> O	YIELD	ERECT				PLANT	EAR	
PIONEER 3733	92.2	90.9	100.9	23.2	119.2	98.2	84.4	39.8	2.2
DOEBLER S 57XPA	92.8	93.8	99.3	23.4	122.9	96.6	80.0	36.5	2.1
MUNCY CHIEF ESX560	93.3	71.8	96.1	23.5	94.1	93.5	82.9	38.0	2.4
HALSEY H296	93.3	82.8	100.2	23.5	108.6	97.5	84.4	38.5	2.7
DEKALB DK524	94.2	97.7	95.2	23.7	128.1	92.6	95.0	47.0	2.5
HY PERFORMER HS9330	94.4	83.9	101.2	23.8	110.0	98.4	82.9	39.1	2.6
PIONEER 3540	94.9	90.8	102.1	23.9	119.0	99.4	91.5	44.7	2.2
DOEBLER S 58XP	95.4	81.7	98.1	24.0	107.1	95.5	80.8	42.7	2.6
HARDY HB6500	96.2	87.4	101.2	24.3	114.6	98.5	84.7	35.0	2.0
MUNCY CHIEF XA4550	97.6	84.4	99.9	24.6	110.6	97.1	77.4	35.7	2.8
NORTHROP KING N4545	97.6	99.1	101.6	24.6	129.9	98.8	89.5	42.5	2.5
PIONEER 3527	97.3	101.5	102.0	24.6	133.1	99.3	96.4	46.2	1.8
MUNCY CHIEF XA4492	98.0	68.4	99.9	24.7	89.7	97.2	79.0	30.9	2.9
DOEBLER S 62XP	98.7	112.1	98.6	24.9	146.9	95.9	93.1	42.1	2.3
EASTLAND E599	101.6	100.6	100.9	25.6	131.8	98.2	84.7	33.8	1.5
JACQUES 6970	102.0	96.6	100.8	25.7	126.6	98.1	79.4	39.2	1.4
NC-4275	102.1	96.5	101.1	25.8	126.5	98.3	84.8	39.4	1.8
DOEBLER S 65X	102.6	95.2	98.6	25.9	124.8	95.9	85.2	41.0	2.2
DOEBLER S 66XP	103.8	102.3	100.9	26.2	134.2	98.2	89.4	41.0	1.8
FUNK S G 4472	104.3	101.0	100.7	26.3	132.4	98.0	86.9	39.7	2.7
CARGILL 6269	104.2	104.9	101.5	26.3	137.6	98.8	85.1	38.8	1.3
HYTEST HT512	106.0	105.2	97.7	26.7	137.9	95.0	88.5	43.8	2.0
WETSEL PX108	105.8	108.1	100.0	26.7	141.8	97.3	96.3	46.4	1.4
HALSEY H1105A	106.2	84.6	98.7	26.8	110.8	96.0	86.5	35.5	2.1
DOEBLER S 64XP	106.3	101.7	100.1	26.8	133.3	97.4	85.0	39.0	1.6
GRIES GSF5106	106.6	84.1	100.3	26.9	110.2	97.6	84.3	40.9	2.4
EASTLAND E652	106.8	90.1	99.4	26.9	118.2	96.8	84.8	40.8	2.5
ICI 8513	106.7	103.3	101.6	26.9	135.4	98.8	87.1	38.5	2.0
AGWAY AG 658	107.5	102.0	99.7	27.1	133.7	97.0	83.4	37.2	1.7
NC+4616	108.0	105.1	101.7	27.2	137.8	98.9	88.3	42.4	2.1
GRIES GSF6110	108.6	100.8	100.4	27.4	132.2	97.7	84.3	37.5	2.1
MUNCY CHIEF XA560	110.3	93.7	100.1	27.8	118.9	97.4	84.8	35.5	1.6
MUNCY CHIEF XA5560	111.7	90.5	102.0	28.1	122.6	99.3	90.0	39.1	1.4
HYTEST HT536	112.7	85.3	101.8	28.4	111.8	99.0	83.7	35.9	2.2
SCHLESSMAN SX661	113.5	103.8	102.4	28.6	136.1	99.6	85.4	43.4	1.3
GRIES GSF6112	115.4	71.1	101.6	29.1	119.4	98.8	89.9	45.4	1.0
<b>MEANS</b>	102.5	94.3	100.2	25.8	123.6	97.5	86.2	39.8	2.1
<b>LSD (05)</b>	4.1	8.6	2.0	1.0	11.3	1.9	6.1	5.3	0.6
<b>LOCATION MEANS</b>									
Centre	94.2	109.1	100.8	23.7	143.1	98.1	86.2	39.8	
Lycoming	101.6	95.5	101.5	25.6	125.1	98.8			
Mercer	112.3	93.2	101.2	28.3	122.1	98.5			
Centre	101.8	79.3	97.4	25.6	103.9	94.7			2.1

### NEW ENTRIES

Table 2. Early medium season hybrid performances (Maturity Zone 3). Combined Penn State Commercial New Entries (average of all locations). Data under Location Means indicate counties where values were obtained.

BRAND HYBRID	PERCENT OF CHECKS			%H <sub>2</sub> O GRAIN	BU A GRAIN	% ERECT	HEIGHT (IN)		LEAF DISEASE RATING
	H <sub>2</sub> O	YIELD	ERECT				PLANT	EAR	
HY PERFORMER HS9299	92.5	81.9	99.3	23.4	98.0	96.7	75.7	33.8	2.3
HY PERFORMER HY9334	92.6	87.0	97.6	23.4	104.2	95.0	81.0	38.1	1.9
TERRA TR1050	92.6	100.2	98.9	23.4	120.0	96.4	83.0	39.0	2.0
DEKALB DK524	92.8	91.3	96.6	23.5	109.3	94.2	90.7	44.7	2.0
CARGILL X4304	93.1	82.8	99.3	23.6	99.1	96.7	87.0	40.9	2.0
NORTHROP KING N4545	94.7	96.7	100.4	23.9	115.7	97.8	86.3	36.0	2.1
NORTHROP KING N5901	95.5	110.2	100.4	24.2	132.0	97.8	86.7	42.0	2.5
FUNK S G 4394	95.6	115.2	101.5	24.2	138.0	98.8	94.0	42.1	2.3
PIONEER 3525	96.7	113.3	100.0	24.4	135.6	97.4	94.3	44.5	1.9
DOEBLER S 55XP	98.8	94.7	100.3	25.0	113.4	97.6	88.7	42.4	2.4

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

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## (Maturity Zone 2) 1993 results

EASTLAND E591A	98.8	97.1	100.8	25.0	116.3	98.1	87.7	40.5	1.9
NORTHROP KING N5220	98.8	101.3	100.7	25.0	121.2	98.0	87.0	39.4	1.9
AGWAY AG 578	99.7	103.9	98.8	25.2	124.4	96.2	90.7	44.3	2.1
PIONEER 3527	99.5	108.3	102.0	25.2	129.7	99.4	95.0	42.7	1.9
DOEBLER S 65XA	99.8	99.4	99.5	25.3	119.0	96.9	89.0	42.2	2.2
AGRI GENE AG5660	99.8	108.5	99.1	25.3	129.8	96.5	84.0	46.3	1.2
CARGILL 6677	100.4	108.8	99.1	25.4	130.2	96.4	99.3	47.6	1.9
CFS W5559	100.8	92.3	100.2	25.5	110.5	97.6	79.3	38.7	1.6
AGRI GENE AG6383	101.4	111.4	98.2	25.7	133.3	95.7	92.0	44.6	1.6
DEKALB DK580	102.9	103.1	99.7	26.0	123.4	97.0	87.3	41.7	1.8
JACQUES EXP3010	103.1	106.8	99.6	26.1	127.8	97.0	86.0	42.3	1.8
AGWAY AG EXP 622	103.3	119.0	100.8	26.1	142.4	98.2	94.7	47.7	1.7
CFS W5767	103.6	80.6	98.9	26.2	96.5	96.4	79.7	36.6	2.4
ICI 8501	103.6	110.1	100.7	26.2	131.8	98.1	97.3	45.3	1.8
DOEBLER S 66XP	104.4	106.7	99.5	26.4	127.7	97.0	89.3	42.3	1.6
FUNK S G-4472	104.9	99.5	101.2	26.5	119.1	98.6	84.7	38.4	2.2
NC+4521	104.8	106.9	98.7	26.5	127.9	96.1	93.0	45.3	1.6
GREENLAND GL223	104.9	113.6	100.8	26.5	135.9	98.1	95.3	42.5	1.5
ASGROW RX707	105.3	113.9	99.7	26.6	136.3	97.0	93.0	40.5	2.0
GREENLAND GL211	106.2	105.2	99.5	26.9	125.9	96.9	93.3	42.9	1.3
AGWAY AG EXP 623	106.6	106.0	99.2	27.0	128.8	96.6	94.0	43.8	1.2
DOEBLER S 64XP	107.3	102.6	99.6	27.2	122.9	97.0	85.3	40.3	2.1
AGWAY AG 626	107.5	106.0	99.8	27.2	126.9	97.2	92.7	41.2	2.2
PRAIRIE STREAM SX412	109.2	100.9	98.9	27.6	120.8	96.3	101.0	49.2	1.4
ANDERSONS PSX405	114.5	101.5	101.5	29.0	121.5	98.9	86.3	39.3	1.2
NC+5037	114.8	109.9	102.0	29.0	131.5	99.3	88.0	44.0	1.1
<b>MEANS</b>	101.4	102.7	99.8	25.7	122.9	97.2	89.2	42.1	1.8
<b>LSD (05)</b>	3.7	8.3	1.9	0.9	10.0	1.8	6.1	6.1	0.6
<b>LOCATION MEANS</b>									
Centre	94.1	121.5	100.7	23.8	145.4	98.1	89.2	42.1	
Lycoming	101.2	102.4	101.2	25.6	122.6	98.6			
Mercer	108.4	97.6	101.0	27.4	116.8	98.4			
Centre	101.9	89.3	96.3	25.8	107.0	93.8			1.8

### TWO-YEAR AVERAGE PERFORMANCE

Table 3. Early medium season hybrids mean performance 1992-1993 (Maturity Zone 2)

BRAND-HYBRID	PERCENT OF CHECKS			%H <sub>2</sub> O GRAIN	BU/A GRAIN	% ERECT	HEIGHT (IN)		LEAF DISEASE RATING
	H <sub>2</sub> O	YIELD	ERECT				PLANT	EAR	
HY PERFORMER HS9330	89.3	87.1	99.3	24.1	111.7	94.0			
DOEBLER S 58XP	90.9	86.0	96.3	24.5	110.3	91.2			
HALSEY H296	92.6	82.1	99.9	25.0	105.2	94.6			
DEKALB DK524	93.3	97.1	95.8	25.2	124.5	90.7			
PIONEER 3733	93.7	92.4	100.4	25.3	118.4	95.1			
DOEBLER S 57XPA	96.3	93.8	97.9	26.0	120.2	92.7			
HARDY HB6500	97.4	88.7	102.2	26.3	113.7	96.8			
PIONEER 3527	97.8	102.9	103.5	26.4	131.9	98.0			
NORTHROP KING N4545	97.8	96.6	100.5	26.4	126.4	95.2			
DOEBLER S 65X	101.1	98.9	99.0	27.3	124.2	93.8			
JACQUES 6970	101.9	98.4	97.5	27.5	126.2	92.3			
DOEBLER S 62XP	102.6	107.9	96.6	27.7	138.3	91.5			
HALSEY H1105A	102.6	88.1	96.2	27.7	112.9	91.5			
NC+4275	103.3	101.1	100.8	27.9	129.6	95.1			
EASTLAND E599	103.3	98.0	102.6	27.9	125.7	97.2			
HYTEST HT512	103.7	106.9	96.9	28.0	137.0	91.7			
CARGILL 6269	103.7	106.0	101.5	28.0	135.9	96.1			
DOEBLER S 64XP	104.1	103.4	101.4	28.1	132.6	96.0			
FUNK'S G-4472	105.6	101.2	99.8	28.5	129.8	94.5			
GRIES GSF 5106	105.8	91.2	100.3	28.5	116.9	95.0			
DOEBLER S 66XP	106.3	104.0</							