

# **Maturity Zone 2**

(Continued from Page 35)

second week of November, but not completed until December 7 because the grain moisture remained high and weather conditions were poor.

## Diseases, insects, and other pests

Hybrids grown at one of the Centre County locations were inoculated with the fungi causing northern leaf blight (NLB) and northern leaf spot (NLS), but only NLS ratings were made. These are given in Tables 1 and 2. The incidence of this disease was not significant enough to rate at the other locations; however, some gray leaf spot and bacterial leaf blight were observed at most locations, but did not cause any significant damage. Also, some stalk and ear rot were noted.

Animal and bird damages were observed but did not cause a significant problem.

## Interpretation of results

Least significant differences (LSD) is the tool used to determine if two average values are actually different statistically. The difference between two hybrids must exceed the LSD value to be considered significantly different. Example for yield: LSD = 8.1 Bu/A; Hybrid X = 120.0 Bu/A; Hybrid Y = 105.0 Bu/A; 120.0 - 105 = 15.0 Bu/A difference. Since the difference between Hybrid X and Y (15.0 Bu/A), exceeded the LSD (8.1 Bu/A), hybrid X was higher yielding due to hybrid superiority and not simply as a result of uncontrolled environmental factors.

### Cooperators and locations

Early medium-season hybrids were evaluated with the cooperation of the following persons: Martin Smith, Luzerne County; Curt Rakestraw, Lycoming County; Don Fretts, Westmoreland County; Harold Foertsch, Butler County; and university farms, Centre County.

## ADVANCED ENTRIES

Table 1 Early medium season hybrid performances (Maturity Zone 2) Combined Penn State Commercial Advanced Entries (average six locations). Data under Location Means indicate counties where values were obtained

BRAND HYBRID	PERCENT-OF CHECKS			%H <sub>2</sub> D	BU/A	%	HEIGHT (IN)		NLS	
	H <sub>2</sub> O	YIELD	ERECT	GRAIN	GRAIN	ERECT	PLANT	EAR	RATING	
HALSEY H295	918	93 5	99 7	26 3	118 4	92 2	863	46 4	30	
PIONEER 3592	929	98 0	98 2	26 6	124 1	908	88 0	47.4	17	
PIONEER 3733	93 9	92 8	99 5	27 0	1176	92 1	85 3	42 2	110	
MUNCY CHIEF SX390	94 5	78 1	95 8	27 1	98 9	88 7	80 1	38 2	35	
DEKALB DK524	95 0	91 2	96 6	27 3	1156	89 4	86 0	44 6	25	
HYTEST HT424	96 6	100 B	101.4	27 7	127 7	93 7	87 9	43.6	20	

NORTHRUP KING N4545	97.2	101 2	99 5	27 9	128 2	92.1	84 0	39 4	15
PIONEER 3527	97 8	107.0	104.3	28.1	135 6	96 5	90.0	50.6	15
DOEBLER'S 57XP	99.4	92 7	96 1	28 5	1174	88.9	79 2	39 4	2.7
HALSEY H1107	99 8	92.1	963	28 6	1166	89 0	8 08	39 4	27
PIONEER 3394	100.1	1106	1023	28 7	140.1	94 6	86 0	46 0	18
HALSEY H1105A	100 2	908	93 1	28 7	115 O	86 1	847	35 7	37
DOEBLER'S 65X	100 6	96 4	99 3	28 9	122 1	91 9	86 6	48 4	30
AGRI GENE GA6839	101 1	98 0	98 9	290	124.2	91.5	85 0	47 5	24
WETSEL W56	101 5	94 5	99.2	29 1	1197	91 8	86.2	43 5	30
DOEBLER'S 64XP	102 4	104 1	102 1	29 4	131 9	94 5	86 6	39 7	12
HYTEST HT512	102 5	107 4	95 6	29 4	136 0	88 4	88 0	42 6	17
AGWAY AG 588	1029	972	100 2	29 5	123 2	92 7	83 8	43 6	28
DOEBLER'S 61X	103 1	960	101 3	29 6	121 6	93 7	83 4	39.8	22
CARGILL 5327	103 4	95 2	96 2	29 7	120 6	88 9	85 2	39 2	38
NC+ 4275	104 6	104 7	100.2	30 0	132 6	92 7	809	36 4	23
GRIES GSF5106	105 0	97 5	99 9	30 1	123 6	92 4	86 0	36 4	13
EASTLAND E599	105 4	94 3	104 0	30 2	1195	96 2	86 9	36 6	17
ICI 8513	106 2	98 9	98 0	30 5	125 3	907	86 2	44 7	23
NC+ 4616	106 7	98 6	94 5	30 6	124 9	87.4	82 8	39 7	23
DEKALB DK582	106 7	92 0	96 4	30 6	1166	89 2	85 2	42 3	23
ANDERSONS PSX370	107 1	99 0	100 0	30 7	125 4	92 5	80 0	38 4	20
FUNK S G-4472	107 4	104 6	99 8	30 8	132 5	92 3	83 2	40 5	30
AGWAY AG 658	107 6	97 5	99 7	30 9	123 5	92 2	82 6	43 6	18
GREAT LAKES GL582	108 0	100 3	99 6	31 0	127 1	92 1	79 7	37 9	22
HUBNER H3709	108 2	99 1	100 8	31 0	125 6	93 2	82 1	42 3	22
DOEBLER'S 66XP	108 4	104 6	96 9	31 1	132 5	89 6	87 6	47.4	23
GRIES GSF6110	109 0	105 3	97 7	31 3	133 5	90 4	82 8	39 1	17
PRAIRIE STREAM SX420		97 4	99 3	31 7	123 3	91 9	78 8	38 2	18
ASGROW RX706	1109	99 7	94 1	31 8	126 3	87 0	87 8	44 1	27
JACQUES 7970	114 7	97 5	86 7	32 9	123 5	80 2	85 9	39 0	30
MEANS	102 9	98 0	98 4	29 5	124 2	91 1	84 5	418	23
LSD ( 05)	31	68	4 1	09	87	38	56	71	08
LOCATION MEANS									
Centre	105 6	99 3	93 9	33 5	101 0	86 6			
Lycoming	1033	95 2	100 4	30 8	100 1	96 5			
Luzerne	1036	96 3	98 4	25 9	120 1	94 5			
Butler	99 0	97 2	99 6	34 4	150 0	96 4			
Westmoreland	1013	106 1	100 4	24 3	1398	97 9			
Centre	104 4	94 0	97 6	28 2	134 1	74 4	84 5	418	23

#### **NEW ENTRIES**

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

	PERCENT-OF-CHECKS		%H <sub>2</sub> O	%H <sub>2</sub> O BU/A		HEIGHT	(IN) _	NLS	
BRAND HYBRID	H <sub>2</sub> O	YIELD	ERECT	GRAIN	GRAIN	ERECT	PLANT	EAR	RATING
HY PERFORMER H\$9240	82 0	89 1	101 4	23 3	109 9	,933	86 5	42 7	28
HY PERFORMER HS9330	86 2	919	97 2	24 5	1134	89 5	88 4	38 7	28
TERRA TR910	86 9	87 5	93 4	24 7	108 0	85 9	82 9	41 0	27
HY PERFORMER HS9233	88 0	918	101 0	25 0	1132	92 9	85 1	36 7	28
DOEBLER S 58XP	88 4	919	94 4	25 1	1134	86 9	78 7	37 7	25
TERRA TR1020	90 7	84 9	963	25 8	104 8	88 6	82 6	41 7	27
DEKALB DK524	922	102 1	96 0	26 2	126 0	88 3	843	41.7	25
HALSEY H296	93 4	82 4	99 5	26 5	101 7	916	813	33 3	32
TERRA TR1010	93 4	91 9	98 0	26 5	113 4	90 2	74 1	32 0	28
AGWAY AG 454	93 6	89 3	96 4	26 6	1102	88 7	81 4	40 0	25
AGWAY AG EXP 511	96 4	90 3	92 8	27 4	111 4	85 4	84 1	413	23
AGRI GENE AG4250	98 5	97 1	102 1	28 0	1199	93 9	81 4	37 3	28
NORTHRUP KING N4545	99 6	95 6	99 1	28 3	1180	91 1	79 1	40 6	17
PIONEER 3527	99 7	102 0	105 3	28 3	125 8	96 9	94.0	47 0	15
HARDY HB6500	99 7	913	103 3	283	1127	95 0	84.5	423	25
DOEBLER'S 65X	100 8	101 4	98 8	28 6	125 1	90 9	87.5	46 4	22
TERRA TR1030	101 3	94 9	98 1	28 8	117 1	903	83 0	43 3	22
HARDY HB6450	101 5	942	98 8	28 8	1163	909	85 0	44 3	28
AGRI GENE GA7149	102 8	102 2	101 3	29 2	126 1	93 2	79 8	40 0	28
JACQUES 6970	103 4	102 0	94 0	29 4	125 9	865	809	39 0	2.7
FUNK'S G-4402	103 7	88 5	100 0	29 4	109 2	92 0	79 7	400	1.5
CARGILL 6269	104 9	1130	101 5	29 8	139 5	93 4	89 2	397	20
AGWAY AG EXP 612	105 3	99 0	101 5	29 9	122 1	93 4	86 1	417	15
HYTEST HT536	106 0	107 0	99 1	30 1	132 1	91 2	83 2	38 7	22
AGWAY AG EXP 613	106 4	100 9	103 4	30 2	124 5	95 1	88 5	44 0	13
DOEBLER'S 62XP	107 4	105 0	94 7	30 5	129 6	87 1	84 1	383	18
SCHLESSMAN SX655	107 7	94 9	97 0	30 6	117 1	89 2	823	39 7	27
FUNK'S G 4472	108 2	988	977	30 7	122 0	89 9	86.8	43 4	32
WETSEL PX108A	109 6	966	99 9	31 1	119 2	919	81 2	37 7	20
CARGILL 7177	109 8	97 1	100 7	31 1	1199	926	843	43 0	23
ICI 8382	1102	985	90 1	31 3	121 5	82 9	95 7	477	23
SCHLESSMAN SX661	1102	1003	93 4	313	123 8	85 9	95 / 80 8	407	
GRIES GSF6112	112 1	91 2	93 4 97 8	31 8	1125				13
PRAIRIE STREAM \$X2059		102 2				90 0	81 6	40 6	12
PRAIRIE STREAM SX425		929	93 5	32 5	126 1	86 0	101 0	50 0	12
EASTLAND EX649	115 2		89 0	32 7	1146	81 9	87 0	42 3	12
EASTLAND EXMIS	1169	88 4	93 7	33 2	109 1	86 2	82 8	42 7	.15
MEANS	101 3	95 8	978	28 8	118 2	90 0	84 4	41 0	22
LSD ( 05)	3 4	69	49	10	8 5	4 5	8 4	66	07
LOCATION MEANS									
Centre	1016	99 4	94 0	32 0	93 3	85 6			
Lycoming	99 6	95 6	97 9	30 0	103 2	96 6			
Luzerne	101 0	94 3	98 5	25 9	102 9	88 6			
Butler	101 7	918	99 5	33 8	141 0	96 0			
Westmoreland	100 6	105 3	99 9	23 5	137 5	97 8			
Centre	1028	90 5	96 4	27 5	131 2	75 3	84 4	41 0	22

(Turn to Page 38)



