

Table 1. Traits measured in the NCR-167 Regional 700-800 Test across locations

Locations	Traits												
	Grain Yield bu/ac	Grain Yield Mg/ha	Moisture %	Test Weight lb/bu	Yield/moisture ratio	Root Lodging %	Stalk Lodging %	Upright Pl. Stand %	Population ls/ac or pls/l	Ear Drop %	Retained ear %	Rind penetrometer resistance (load-kg/plant)	Vertical root pulling resistance (load-kg/plant)
U Delaware	X		X		X	X	X	X		X			
Illinois	X		X				X		X				
Iowa State - Ames	X		X			X	X		X	X			
Iowa State - Ankeny	X		X			X	X		X	X			
Iowa State - Carroll	X		X			X	X		X	X			
ARS-U.Missouri												X	X
Nebraska	X	X	X					X	X		X		
Ohio State		X	X				X		X				
Penn State		X	X					X	X				
Texas A&M	X	X	X	X		X	X		X				

Table 2. NCR-167 Regional 700-800 TEST SUMMARY

Entry	Pedigree	DELAWARE		ILLINOIS		IOWA - AMES		IOWA - ANKENY		IOWA - CARROLL		NEBRASKA		OHIO		PENNSYLVANIA		TEXAS	
		Yield Rank	Yield Mg/ha	Yield Rank	Yield Mg/ha	Yield Rank	Yield Mg/ha	Yield Rank	Yield Mg/ha	Yield Rank	Yield Mg/ha	Yield Rank	Yield Mg/ha	Yield Rank	Yield Mg/ha	Yield Rank	Yield Mg/ha	Yield Rank	Yield Mg/ha
LH198 TESTCROSSES																			
1	BS16(HI)C0)-253-1-1-1-1-1-1-1-1-1-1/LH198	3	12.7	14	10.0	17	8.6	18	8.7	12	7.9	20	8.6	20	8.67	10	5.6	17	8.1
2	BS11(S2)C4)-198-1-1-1-2-1-1-1-1-1-1/LH198	6	11.6	20	8.8	24	7.1	20	8.2	11	8.0	14	9.3	15	9.97	15	5.2	14	9.0
3	BS26(S-H)C4)-42-1-1-1-1-1-1-1-1-1-1/LH198	13	11.0	6	10.8	2	10.6	5	10.5	3	9.5	5	10.8	3	11.86	12	5.4	13	9.1
4	OhSyn3-E6-5-4-2-3/LH198	21	9.4	21	8.6	10	9.0	22	7.8	13	7.9	21	8.5	14	10.17	16	5.1	24	7.1
5	OhSyn3-E6-5-1-3-5/LH198	23	9.2	24	7.5	16	8.6	21	7.9	9	8.3	19	8.9	11	10.43	7	5.8	23	7.3
6	PA95-77/LH198	11	11.1	16	9.8	1	11.0	2	11.6	6	8.4	9	10.1	6	11.46	3	6.4	5	9.8
7	PA95-82/LH198	7	11.5	18	9.1	14	8.7	6	10.4	23	6.6	16	9.2	17	9.33	17	4.9	22	7.6
8	PA95-92/LH198	12	11.1	17	9.3	8	9.0	12	9.8	8	8.3	10	10.1	2	11.97	9	5.6	16	8.5
LH185 TESTCROSSES																			
9	B97/B95-001-1-1-1-1/LH185	19	9.9	12	10.2	13	8.7	11	10.0	7	8.4	23	8.2	18	9.04	20	4.0	6	9.7
10	B97/B95)-094-1-1-1-1-1-1-1-1-1-1/LH185	14	10.8	13	10.1	23	7.4	19	8.6	20	7.0	13	9.4	7	11.27	4	6.1	15	8.9
11	B97/B95)-107-1-1-1-1-1-1-1-1-1-1/LH185	25	7.9	22	8.5	20	8.1	13	9.3	19	7.4	22	8.3	21	8.53	6	6.0	25	6.8
12	B97/B99)-047-1-1-1-1-1-1-2/LH185	15	10.8	2	11.6	11	9.0	15	9.2	16	7.6	12	9.6	5	11.56	2	6.5	2	11.2
13	BS13(S)C7)-226-1-1-1-1-1-1-1/LH185	22	9.3	9	10.6	25	6.9	16	8.9	24	6.3	17	9.2	22	8.38	5	6.0	7	9.7
14	BS13(S)C7)-032-1-1-1-1-1-1-1/LH185	9	11.2	11	10.4	18	8.3	8	10.3	5	8.6	7	10.7	9	10.90	13	5.3	19	7.8
15	BS10(FR)C12)-3834-15-1-1-1/LH185	17	10.4	23	8.2	21	7.9	4	10.8	21	6.8	11	9.9	19	9.00	14	5.3	21	7.7
16	PA95-46/LH185	16	10.5	8	10.6	22	7.9	24	6.3	25	6.0	18	9.1	13	10.17	21	3.4	8	9.6
17	PA95-60/LH185	24	9.1	15	10.0	4	10.1	25	5.3	17	7.6	8	10.2	10	10.83	18	4.6	12	9.2
18	PA95-72/LH185	8	11.3	7	10.8	7	9.6	23	7.1	15	7.7	24	8.1	16	9.96	19	4.5	10	9.4
19	DE(BSSS)C2)-068-1-2-1-1-1/LH185	18	10.3	19	8.9	19	8.2	3	11.1	18	7.5	15	9.3	23	8.07	11	5.5	11	9.3
20	DE(BSSS)C2)-420-3-2-1-1-1/LH185	4	12.2	10	10.5	5	9.8	10	10.2	10	8.0	4	10.8	8	11.12	8	5.8	20	7.8
21	DE(BSSS)C2)-612-4-3-1-1-1/LH185	5	12.2	4	11.0	6	9.7	17	8.8	4	8.8	6	10.7	4	11.74	1	7.2	9	9.5
CHECKS:		20	9.4	1	12.9	15	8.7	14	9.2	14	7.7	3	11.0	1	12.40			18	7.9
		1	13.6	3	11.6	9	9.0	7	10.4	2	9.9	1	12.5	12	10.23			4	10.0
		10	11.2	5	10.9	12	8.8	9	10.2	22	6.7	2	11.4					3	10.1
		2	13.0			3	10.3	1	12.3	1	11.7							1	11.6
STATISTICS:		Mean			10.0		8.9		9.3		7.9		9.7		10.21		5.4		8.9
	LSD(0.05)				.		2.1		3.0		2.2		1.2		2.16				2.1
CHECKS:		DE(BSSS)C2-86/LH Pioneer 34M94				DK537		DK537		DK537		P34G82		B73 x Mo17		BSSSC14 x BSCBC1			
		Pioneer 31G98				DK595		DK595		DK595		P33A14		Pioneer 3394		RX897			
		Pioneer 33G26				DKC5738		DKC5738		DKC5738		FR1064/LH185				DK668			
		Pioneer 34B23				DK611		DK611		DK611						DK687			

Table 2. NCR-167 Regi

Entry	Pedigree	MEANS ACROSS LOCATIONS				
		Yield Rank	Yield bu/a	Yield Mg/ha	Moisture %	Lodging %
LH198 TESTCROSSES						
1	BS16(HI)C0)-253-1-1-1-1-1-1-1/LH198	15	140.5	8.8	18.7	11.9
2	BS11(S2)C4)-198-1-1-1-2-1-1-1/LH198	15	137.5	8.6	19.5	8.8
3	BS26(S-H)C4)-42-1-1-1-1/LH198	7	159.5	9.9	20.6	15.9
4	OhSyn3-E6-5-4-2-3/LH198	18	131.0	8.2	15.7	9.7
5	OhSyn3-E6-5-1-3-5/LH198	17	131.7	8.2	16.9	7.9
6	PA95-77/LH198	7	159.9	10.0	20.3	9.0
7	PA95-82/LH198	16	137.9	8.6	20.1	14.6
8	PA95-92/LH198	10	149.1	9.3	20.2	16.4
LH185 TESTCROSSES						
9	B97/B95-001-1-1-1-1/LH185	14	139.1	8.7	16.9	14.3
10	B97/B95)-094-1-1-1-1-1-1-1/LH185	14	141.8	8.8	18.8	17.1
11	B97/B95)-107-1-1-1-1-1-1-1/LH185	19	126.1	7.9	19.3	12.9
12	B97/B99)-047-1-1-1-1-1-2/LH185	9	155.0	9.7	17.4	11.4
13	BS13(S)C7)-226-1-1-1-1-1/LH185	16	134.1	8.4	17.6	12.2
14	BS13(S)C7)-032-1-1-1-1-1/LH185	11	148.9	9.3	18.1	10.5
15	BS10(FR)C12)-3834-15-1-1/LH185	17	135.4	8.4	18.2	4.5
16	PA95-46/LH185	17	131.4	8.2	18.7	15.6
17	PA95-60/LH185	15	137.2	8.5	19.0	13.5
18	PA95-72/LH185	14	139.7	8.7	19.0	9.4
19	DE(BSSS)C2)-068-1-2-1-1/LH185	15	139.3	8.7	16.5	13.9
20	DE(BSSS)C2)-420-3-2-1-1/LH185	9	153.5	9.6	18.9	17.5
21	DE(BSSS)C2)-612-4-3-1-1/LH185	6	159.7	10.0	18.6	17.5
		13	142.3	8.9	18.5	12.6

CHECKS:

STATISTICS:

CHECKS: 4

Table 3. NCR-167 Regional 700-800 test, Delaware 2001

Entry	Pedigree	Tester	Yield Rank	Yield Bu/A	% Moisture	Y/M	% Stand	% St.Idg.	% Rt.Idg	% Ear drop
1	BS16(HI)CO-253-1-1-1-1-1-1-1-1	LH198	3	202.8	17.3	11.7	92.9	0.0	0.0	0.0
2	BS11(S2)C4-198-1-1-1-2-1-1-1-1	LH198	6	185.8	18.5	10.1	100.9	0.0	0.0	0.0
3	BS26(S-H)C4-42-1-1-1	LH198	13	175.3	19.3	9.1	94.7	3.6	0.0	0.0
4	OhSyn3E6-5-4-2-3	LH198	21	149.8	17.4	8.6	95.5	0.0	0.0	0.0
5	OhSyn3E6-5-1-3-5	LH198	23	147.6	17.6	8.4	92.9	0.0	0.0	0.0
6	PA95-77	LH198	11	177.6	18.9	9.4	99.1	0.0	0.0	0.0
7	PA95-82	LH198	7	183.4	21.0	8.8	102.7	0.0	0.0	0.0
8	PA95-92	LH198	12	177.2	20.7	8.6	100.9	0.0	0.0	0.0
9	B97/B95-001-1-1-1	LH198	19	158.2	14.5	10.9	103.6	0.9	0.0	0.0
10	B97/B95-094-1-1-1-1-1-1	LH198	14	173.1	16.9	10.2	101.8	0.0	0.0	0.0
11	B97/B95-107-1-1-1-1-1-1	LH198	25	126.2	18.8	6.7	82.1	0.0	0.0	0.0
12	B97/B99-047-1-1-1-1-1-2	LH198	15	172.2	15.2	11.3	102.7	0.9	0.0	0.0
13	BS13(S)C7-226-1-1-1-1	LH198	22	149.0	16.6	9.0	100.9	0.0	0.0	0.0
14	BS13(S)C7-032-1-1-1-1	LH198	9	179.2	15.7	11.5	101.8	0.0	0.0	0.0
15	BS10(FR)C12-3834-15-1-1	LH198	17	166.4	16.7	10.0	100.9	0.0	0.0	0.0
16	PA95-46	LH198	16	168.4	19.2	8.8	101.8	0.0	0.0	0.0
17	PA95-60	LH198	24	145.8	18.2	8.0	93.8	0.0	0.0	0.0
18	PA95-72	LH198	8	180.9	19.9	9.1	102.7	0.0	0.0	0.0
19	DE(BSSS)C2-68-1-2-1-1	LH185	18	165.3	16.2	10.2	104.5	0.9	0.0	0.0
20	DE(BSSS)C2-420-3-2-1-1	LH185	4	195.6	21.3	9.2	94.7	0.0	0.0	0.0
21	DE(BSSS)C2-612-4-3-1-1	LH185	5	195.4	18.1	10.8	100.0	0.0	0.0	0.0
22	DE(BSSS)C2-86-2-4-1-1-4-2-1	LH185	20	150.6	19.8	7.6	92.0	0.0	0.0	0.0
23	Pioneer 31G98		1	216.9	21.6	10.0	106.3	0.0	0.0	0.0
24	Pioneer 33G26		10	178.9	17.5	10.3	96.5	0.9	0.0	0.0
25	Pioneer 34B23		2	207.9	18.1	11.5	93.8	0.9	0.0	0.0

Planting date = April 24
Harvesting date = September 12
Irrigated plot

Table 4. NCR-167 Regional 700-800 test, Illinois 2001

Entry	Pedigree	Yield Rank	Yield Bu/A	% St.Idg.	% Moisture	Population pls/a
1	BS16HICO-253-1-1-1-1-1-1-1 x LH198	14	160.4	3.9	18.1	21501
2	BS11S2C4-198-1-1-1-2-1-1-1 x LH198	20	141.5	2.6	18.6	20104
3	BS26S-HC4-42-1-1-1 x LH198	6	172.6	6.9	17.9	20104
4	OHSyn3E6-5-4-2-3 x LH198	21	137.4	5.1	13.9	19965
5	OHSyn3E6-5-1-3-5 x LH198	24	119.2	0.9	12.6	16056
6	PA95-77 x LH198	16	156.9	8.9	17.1	20803
7	PA95-82 x LH198	18	145.3	12.3	16.4	19127
8	PA95-92 x LH198	17	148.9	6.4	20.7	20244
9	B97/B95-001-1-1-1 x LH198	12	163.1	4.2	15.4	19965
10	B97/B95-094-1-1-1-1-1-1- x LH198	13	161.4	1.5	18.9	19546
11	B97/B95-107-1-1-1-1-1-1 x LH198	22	136.4	1.7	19.7	18848
12	B97/B99-047-1-1-1-1-1-2 x LH198	2	184.9	1.9	16.0	20942
13	BS13SC7-226-1-1-1-1 x LH198	9	168.8	0.0	18.5	19965
14	BS13SC7-032-1-1-1-1 x LH198	11	166.9	2.9	17.7	19825
15	BS10FRC12-3834-15-1-1 x LH198	23	130.7	2.1	19.2	20523
16	PA95-46 x LH198	8	170.2	5.5	17.7	19825
17	PA95-60 x LH198	15	159.4	2.2	18.3	18848
18	PA95-72 x LH198	7	172.4	2.6	20.1	21361
19	DEBSSSC2-68-1-2-1-1 x LH198	19	141.7	7.5	14.4	20803
20	DEBSSSC2-420-3-2-1-1 x LH198	10	167.9	4.3	19.1	19267
21	DEBSSSC2-612-4-3-1-1 x LH198	4	176.1	2.7	19.7	20942
22	Pioneer 34M94	1	207.1	8.4	15.5	23874
23	Pioneer 34D34	3	184.9	0.0	17.3	25270
24	Pioneer 33j56	5	174.1	11.3	15.4	54272
Mean			160.4	4.6	17.4	20512
LSD 0.05			25.0	7.3	1.6	2154

Table 5. 2001 NCR-167 (700-800) AMES, IOWA STATE UNIVERSITY

ENTRY	PEDIGREE	Yield Rank	YIELD	STAND	MOIST	RTLGDG	SKLDG	DEARS
			quintals/hæ000 plants/		%	%	%	%
1	BS16(HI)C0)-253-1-1-1-1-1-1-1-1/LH198	17	85.7	62.1	24.6	3.8	2.9	1.0
2	BS11(S2)C4)-198-1-1-1-2-1-1-1-1/LH198	24	71.4	64.5	24.1	1.9	0.9	0.9
3	BS26(S-H)C4)-42-1-1-1-1/LH198	2	106.3	59.7	23.8	2.7	1.1	0.0
4	OhSyn3-E6-5-4-2-3/LH198	10	90.0	53.8	22.3	1.1	2.2	0.0
5	OhSyn3-E6-5-1-3-5/LH198	16	86.4	57.9	22.6	0.0	1.0	0.0
6	PA95-77/LH198	1	110.3	66.9	24.7	0.9	1.8	0.0
7	PA95-82/LH198	14	86.9	60.3	26.4	3.8	2.9	1.0
8	PA95-92/LH198	8	90.4	58.5	27.9	0.0	3.8	0.0
9	B97/B95-001-1-1-1-1/LH185	13	87.4	62.1	24.7	2.9	0.9	0.0
10	B97/B95)-094-1-1-1-1-1-1-1-1/LH185	23	74.1	65.1	27.8	11.9	0.9	0.0
11	B97/B95)-107-1-1-1-1-1-1-1-1/LH185	20	80.8	54.4	26.1	5.4	1.0	0.0
12	B97/B99)-047-1-1-1-1-1-1-2/LH185	11	90.0	63.9	24.8	13.0	0.9	0.0
13	BS13(S)C7)-226-1-1-1-1-1-1/LH185	25	69.4	62.7	26.1	0.0	3.8	1.0
14	BS13(S)C7)-032-1-1-1-1-1-1/LH185	18	83.0	57.9	26.1	5.2	2.0	1.0
15	BS10(FR)C12)-3834-15-1-1-1-1/LH185	21	79.0	56.7	25.8	0.0	1.9	0.0
16	PA95-46/LH185	22	79.0	63.9	26.6	3.8	0.0	0.0
17	PA95-60/LH185	4	100.5	62.7	27.3	8.6	0.9	0.0
18	PA95-72/LH185	7	96.4	65.1	26.5	5.5	1.8	0.0
19	DE(BSSS)C2)-068-1-2-1-1-1-1/LH185	19	81.5	58.5	25.6	0.0	6.0	2.1
20	DE(BSSS)C2)-420-3-2-1-1-1-1/LH185	5	97.7	65.7	26.5	5.5	1.8	1.8
21	DE(BSSS)C2)-612-4-3-1-1-1-1/LH185	6	96.6	58.5	24.8	24.6	1.1	1.1
22	DK537	15	86.9	66.9	20.9	0.0	0.0	0.0
23	DK595	9	90.4	59.7	22.5	10.6	0.9	0.0
24	DKC5738	12	88.3	66.9	23.2	0.0	0.9	0.0
25	DK611	3	102.9	66.3	25.5	2.7	1.8	0.0
	EXP MIN		69.4	53.8	20.9	0.0	0.0	0.0
	EXP MAX		110.3	66.9	27.9	24.6	6.0	2.1
	EXP MEAN		88.5	61.6	25.1	4.6	1.7	0.4
	LSD (0.05)		21.3	8.5	2.3	11.3	4.0	1.8
	Heritability		0.52	0.46	0.82	0.54	-0.07	0.05

Table 6. 2001 NCR-167 (700-800) ANKENY, IOWA STATE UNIVERSITY

ENTRY	PEDIGREE	Yield Rank	YIELD	STAND	MOIST	RTL DG	SKLDG	DEARS
			quintals/hz000 plants/		%	%	%	%
1	BS16(HI)C0)-253-1-1-1-1-1-1-1/LH198	18	86.6	61.5	24.2	11.5	0.9	0.0
2	BS11(S2)C4)-198-1-1-1-2-1-1-1/LH198	20	81.5	65.1	22.8	23.1	2.7	0.0
3	BS26(S-H)C4)-42-1-1-1/LH198	5	105.2	65.1	24.7	41.4	0.0	0.0
4	OhSyn3-E6-5-4-2-3/LH198	22	77.9	63.3	21.4	26.4	3.8	0.0
5	OhSyn3-E6-5-1-3-5/LH198	21	78.9	63.3	21.3	23.0	5.7	0.0
6	PA95-77/LH198	2	115.6	66.9	24.4	10.7	1.8	0.0
7	PA95-82/LH198	6	104.0	66.9	25.6	50.9	0.0	0.0
8	PA95-92/LH198	12	97.5	66.9	26.7	62.5	2.7	0.0
9	B97/B95-001-1-1-1/LH185	11	99.5	66.9	22.1	9.8	0.0	0.0
10	B97/B95)-094-1-1-1-1-1-1/LH185	19	86.0	66.3	24.9	40.4	0.9	0.0
11	B97/B95)-107-1-1-1-1-1-1/LH185	13	92.6	58.5	26.8	18.9	1.9	0.0
12	B97/B99)-047-1-1-1-1-1-2/LH185	15	92.3	66.9	26.3	19.6	0.9	0.0
13	BS13(S)C7)-226-1-1-1-1/LH185	16	88.7	65.1	22.7	6.5	6.4	0.0
14	BS13(S)C7)-032-1-1-1-1/LH185	8	103.3	63.3	23.3	29.3	0.9	0.0
15	BS10(FR)C12)-3834-15-1-1/LH185	4	108.3	65.7	25.0	3.6	1.8	0.0
16	PA95-46/LH185	24	63.1	66.9	26.7	45.5	0.0	0.0
17	PA95-60/LH185	25	53.3	62.1	27.7	67.4	0.0	0.0
18	PA95-72/LH185	23	70.7	65.7	26.2	5.4	2.7	0.0
19	DE(BSSS)C2)-068-1-2-1-1/LH185	3	111.3	64.5	20.9	33.0	0.9	0.0
20	DE(BSSS)C2)-420-3-2-1-1/LH185	10	101.5	62.7	24.6	44.9	0.0	1.0
21	DE(BSSS)C2)-612-4-3-1-1/LH185	17	87.7	66.3	24.0	39.4	0.9	0.0
22	DK537	14	92.4	66.9	18.8	6.3	0.9	0.0
23	DK595	7	104.0	66.9	21.4	21.4	0.0	0.0
24	DKC5738	9	102.0	63.3	20.0	2.7	3.0	0.0
25	DK611	1	122.9	64.5	22.6	19.7	1.0	1.0
EXP MIN			53.3	58.5	18.8	2.7	0.0	0.0
EXP MAX			122.9	66.9	27.7	67.4	6.4	1.0
EXP MEAN			93.1	64.9	23.8	26.5	1.6	0.1
LSD (0.05)			29.8	6.1	1.6	37.5	4.5	0.8
Heritability			0.61	0.07	0.95	0.52	0.20	-0.09

Table 7. 2001 NCR-167 (700-800) CARROLL, IOWA STATE UNIVERSITY

ENTRY PEDIGREE		Yield Rank	YIELD	STAND	MOIST	RTLGD	SKLDG	DEARS
			quintals/h:000 plants/		%	%	%	%
1	BS16(HI)C0)-253-1-1-1-1-1-1-1/LH198	12	78.9	68.1	16.9	4.4	11.4	0.0
2	BS11(S2)C4)-198-1-1-1-2-1-1-1/LH198	11	79.5	66.3	18.8	7.2	4.5	0.0
3	BS26(S-H)C4)-42-1-1-1/LH198	3	94.7	66.3	18.3	24.4	5.5	0.0
4	OhSyn3-E6-5-4-2-3/LH198	13	78.6	63.9	16.7	7.3	5.7	0.0
5	OhSyn3-E6-5-1-3-5/LH198	9	83.0	69.9	16.8	4.9	4.0	0.0
6	PA95-77/LH198	6	84.1	68.1	18.9	0.0	4.3	0.0
7	PA95-82/LH198	23	66.4	69.3	19.1	1.7	8.7	0.0
8	PA95-92/LH198	8	83.3	53.2	20.6	20.4	3.3	0.0
9	B97/B95-001-1-1-1/LH185	7	84.1	68.7	18.9	47.6	2.6	0.0
10	B97/B95)-094-1-1-1-1-1-1/LH185	20	70.0	64.5	19.9	45.7	3.6	0.0
11	B97/B95)-107-1-1-1-1-1-1/LH185	19	73.9	53.2	21.2	59.1	0.0	0.0
12	B97/B99)-047-1-1-1-1-1-2/LH185	16	76.1	66.3	19.4	18.8	1.8	0.0
13	BS13(S)C7)-226-1-1-1-1/LH185	24	62.6	61.5	20.1	2.0	11.6	0.0
14	BS13(S)C7)-032-1-1-1-1/LH185	5	85.5	63.3	18.1	8.3	3.7	0.0
15	BS10(FR)C12)-3834-15-1-1/LH185	21	67.6	67.5	19.9	0.0	0.0	0.0
16	PA95-46/LH185	25	60.3	67.5	18.8	13.2	0.9	0.0
17	PA95-60/LH185	17	76.1	62.1	20.0	5.8	0.0	0.0
18	PA95-72/LH185	15	76.5	68.1	20.4	37.3	0.9	0.0
19	DE(BSSS)C2)-068-1-2-1-1/LH185	18	75.1	65.1	19.0	10.1	10.0	0.0
20	DE(BSSS)C2)-420-3-2-1-1/LH185	10	80.1	62.7	20.5	61.1	0.9	0.0
21	DE(BSSS)C2)-612-4-3-1-1/LH185	4	87.5	67.5	20.3	50.2	1.8	0.0
22	DK537	14	77.2	71.7	16.4	0.0	2.3	0.9
23	DK595	2	98.8	63.9	17.4	5.6	0.9	0.9
24	DKC5738	22	67.2	69.3	17.7	0.0	3.4	0.0
25	DK611	1	117.4	62.1	17.9	2.1	3.6	0.0
EXP MIN			60.3	53.2	16.4	0.0	0.0	0.0
EXP MAX			117.4	71.7	21.2	61.1	11.6	0.9
EXP MEAN			79.4	65.2	18.9	17.5	3.8	0.1
LSD (0.05)			22.2	9.7	1.7	43.7	6.8	0.8
Heritability			0.60	0.46	0.82	0.45	0.53	-0.09

Table 8. 2001 NCR-167 (700-800) EXPERIMENT GROWN AT AMES, ANKENY, & CARROLL, IA BY IOWA STATE UNIVERSITY (ARNEL HALLAUER)

ENTRY	PEDIGREE	Yield Rank	YIELD	STAND	MOIST	RTL DG	SKLDG	DEARS
			quintals/h:000	plants/	%	%	%	%
1	BS16(HI)C0)-253-1-1-1-1-1-1-1/LH198	16	84.3	63.9	21.9	6.6	5.1	0.3
2	BS11(S2)C4)-198-1-1-1-2-1-1-1/LH198	21	78.0	65.3	21.9	10.7	2.7	0.3
3	BS26(S-H)C4)-42-1-1-1/LH198	3	102.1	63.7	22.2	22.8	2.2	0.0
4	OhSyn3-E6-5-4-2-3/LH198	19	81.2	60.3	20.1	11.6	3.9	0.0
5	OhSyn3-E6-5-1-3-5/LH198	17	83.4	63.7	20.2	9.3	3.5	0.0
6	PA95-77/LH198	2	104.4	67.3	22.6	3.9	2.6	0.0
7	PA95-82/LH198	13	86.6	65.5	23.7	18.8	3.9	0.3
8	PA95-92/LH198	10	87.7	59.5	25.0	27.6	3.3	0.0
9	B97/B95-001-1-1-1/LH185	6	91.2	65.9	21.9	20.1	1.2	0.0
10	B97/B95)-094-1-1-1-1-1-1/LH185	22	76.9	65.3	24.2	32.7	1.8	0.0
11	B97/B95)-107-1-1-1-1-1-1/LH185	20	79.1	55.4	24.7	27.8	1.0	0.0
12	B97/B99)-047-1-1-1-1-1-2/LH185	14	86.6	65.7	23.5	17.2	1.2	0.0
13	BS13(S)C7)-226-1-1-1-1/LH185	24	72.9	63.1	22.9	2.8	7.3	0.3
14	BS13(S)C7)-032-1-1-1-1/LH185	8	89.8	61.5	22.5	14.3	2.2	0.3
15	BS10(FR)C12)-3834-15-1-1/LH185	15	85.1	63.3	23.5	1.2	1.2	0.0
16	PA95-46/LH185	25	68.2	66.1	24.0	20.8	0.3	0.0
17	PA95-60/LH185	23	76.0	62.3	25.0	27.3	0.3	0.0
18	PA95-72/LH185	18	82.2	66.3	24.4	16.1	1.8	0.0
19	DE(BSSS)C2)-068-1-2-1-1/LH185	9	89.0	62.7	21.8	14.4	5.6	0.7
20	DE(BSSS)C2)-420-3-2-1-1/LH185	5	92.9	63.7	23.9	37.2	0.9	0.9
21	DE(BSSS)C2)-612-4-3-1-1/LH185	7	90.9	64.1	23.0	38.1	1.3	0.4
22	DK537	11	87.3	68.5	18.7	2.1	1.1	0.3
23	DK595	4	97.3	63.5	20.4	12.6	0.6	0.3
24	DKC5738	12	87.1	66.5	20.3	0.9	2.4	0.0
25	DK611	1	114.2	64.3	22.0	8.2	2.1	0.3
EXP MIN			68.2	55.4	18.7	0.9	0.3	0.0
EXP MAX			114.2	68.5	25.0	38.1	7.3	0.9
EXP MEAN			87.0	63.9	22.6	16.2	2.4	0.2
LSD (0.05)			17.0	4.9	1.7	23.6	3.1	
Heritability			0.7	0.6	0.9	0.4	0.6	

Table 9. 2001 NCR-167 700-800 Regional Test at Columbia, MISSOURI (Larry Darrah).

Entry	Pedigree	Rind penetrometer resistance (load-kg/plant)	Vertical root pulling resistance (load-kg/plant)
1	LH198 □ BS16(HI)CO-253-1-1-1-1-1-1-1	4.4	287.8
2	LH198 □ BS1I(S2)C4-198-1-1-1-2-1-1-1	3.7	227.3
3	LH198 □ BS26(S-H)C4-42-1-1-1	3.7	253.8
4	LH198 □ OhSyn3 E6-5-4-2-3	4.0	285.8
5	LH198 □ OhSyn3 E6-5-1-3-5	3.6	235.4
6	LH198 □ PA95-77	4.0	263.1
7	LH198 □ PA95-82	3.8	271.7
8	LH198 □ PA95-92	4.1	270.1
9	LH198 □ B97/B95-001-1-1-1	4.9	274.7
10	LH198 □ B97/B95-094-1-1-1-1-1-1	4.4	296.3
11	LH198 □ B97/B95-107-1-1-1-1-1-1	5.0	277.3
12	LH198 □ B97/B99-047-1-1-1-1-1-2	4.4	269.3
13	LH185 □ BS13(S)C7-226-1-1-1-1	4.2	260.3
14	LH185 □ BS13(S)C7-032-1-1-1-1	4.3	271.9
15	LH185 □ BS10(FR)C12-3834-15-1-1	5.0	253.4
16	LH185 □ PA95-46	5.8	280.0
17	LH185 □ PA95-60	5.0	305.1
18	LH185 □ PA95-72	4.9	295.2
19	LH185 □ DE(BSSS)C2-68-1-2-1-1	4.4	295.5
20	LH185 □ DE(BSSS)C2-420-3-2-1-1	5.1	340.5
21	LH185 □ DE(BSSS)C2-612-4-3-1-1	4.5	285.2
22	B73 □ Mo17 (Check)	3.7	284.8
23	Pioneer Brand 3394 (Check)	4.2	275.9
	Mean	4.4	276.5
	Minimum	3.6	227.3
	Maximum	5.8	340.5
	LSD (0.05)	0.6	48.1
	CV%	9.0	10.6

RindP kg Rind penetrometer resistance was measured by using the Missouri-modified rind penetrometer with the needle inserted into the side of the internode below the top ear node and reported in load-kg/plant. Up to 10 competitive plants per plot were measured.

RootP kg Vertical root pulling resistance was measured using a Kellem (flexible-eye pulling grip) and reported in load-kg/plant. Up to 10 competitive plants per plot were measured.

Significant differences for both characters resulted and CVs for 2001 were low; these were very good tests.

Table 10. NCR 167 700-800 AES, NEBRASKA

ENTRY	PEDIGREE	YIELD RANK	YIELD (BU/AC)	YIELD (MG/HA)	UPRIGHT PLT(%)	RETAINED EAR (%)	MOISTURE (%)	POPULATION PLTS/AC
1	LH198/BS16(HI)C0-253	20	140.9	8.61	95.1	100.0	16.9	27333
2	LH198/BS11(S2)C4-198	14	152.5	9.32	97.6	100.0	16.4	28167
3	LH198/BS26(S-H)C4-42	5	175.9	10.75	97.0	100.0	16.6	27667
4	LH198/OHSyn3	21	138.6	8.47	100.0	100.0	13.6	28167
5	LH198/OHSyn3	19	145.5	8.89	100.0	100.0	14.0	28167
6	LH198/PA95-77	9	164.6	10.06	97.0	100.0	15.7	28167
7	LH198/PA95-82	16	151.0	9.23	98.2	99.4	16.0	27500
8	LH198/PA95-92	10	164.6	10.06	95.9	100.0	17.8	28333
9	LH198/B97/B95-001	23	133.4	8.15	97.1	100.0	15.5	28667
10	LH198/B97/B95-094	13	154.0	9.41	98.9	100.0	16.8	27833
11	LH198/B97/B95-107	22	136.3	8.33	98.8	100.0	17.6	27000
12	LH198/B97/B99-047	12	157.1	9.60	97.7	98.3	17.0	28667
13	LH185/BS13(S)C7-226	17	149.8	9.15	95.5	100.0	16.6	28500
14	LH185/BS13(S)C7-032	7	175.1	10.70	98.2	100.0	16.0	28000
15	LH185/BS10(FR)C12-3834	11	162.2	9.91	100.0	100.0	17.4	28500
16	LH185/PA95-46	18	149.4	9.13	96.7	99.5	15.7	29000
17	LH185/PA95-60	8	167.1	10.21	97.1	99.4	16.3	27833
18	LH185/PA95-72	24	132.1	8.07	99.4	100.0	17.0	28167
19	LH185/DE(BSSS)C2-68-1-2-1-1	15	152.5	9.32	98.2	99.4	14.6	27667
20	LH185/DE(BSSS)C2-420-3-2-1-1	4	176.7	10.80	97.7	98.8	17.1	28000
21	LH185/DE(BSSS)C2-612-4-3-1-1	6	175.7	10.74	99.4	100.0	16.5	28333
22	P34G82	3	180.4	11.02	100.0	100.0	14.6	28167
23	P33A14	1	204.5	12.50	93.0	100.0	16.2	29000
24	FR1064/LH185	2	186.1	11.37	98.8	100.0	16.3	28167
	MEANS		159.4	9.74	97.8	99.8	16.2	
	LSD(0.05)		19.6	1.20	3.9	1.0	1.1	
	C.V.		7.5	7.53	2.4	0.6	4.3	

Table 11. 2001 NCR 700-800 MATURITY TEST SOUTH CHARLESTON, OHIO

ENTRY	PEDIGREE	SOURCE	YIELD RANK	YIELD MG/HA	LODGING %	MOISTURE %	STAND PLS/HA
1	BS16(HI)CO-253-1-1-1-1-1-1-1	4879-80	20	8.67	31.0	18.4	66443
2	BS11(S2)C4-198-1-1-1-2-1-1-1	4883-84	15	9.97	11.0	19.3	66443
3	BS26(S-H)C4-42-1-1-1	4887-88	3	11.86	24.0	20.7	66443
4	OhSyn3 E6-5-4-2-3	4864 or 4872	14	10.17	16.0	16.5	66443
5	OhSyn3 E6-5-1-3-5	4865 or 4873	11	10.43	10.0	17.5	66443
6	PA95-77	4867-4875	6	11.46	21.0	18.8	66443
7	PA95-82	4868-4876	17	9.33	23.0	18.0	66443
8	PA95-92	4869-4877	2	11.97	18.0	19.9	66443
9	B97/B95-001-1-1-1	5714-15	18	9.04	29.0	16.9	66443
10	B97/B95-094-1-1-1-1-1-1	5716-17	7	11.27	21.0	20.0	66443
11	B97/B95-107-1-1-1-1-1-1	5718-19	21	8.53	4.0	21.3	66443
12	B97/B99-047-1-1-1-1-1-2	5724-25	5	11.56	14.0	17.9	66443
13	BS13(S)C7-226-1-1-1-1	5726-27	22	8.38	50.0	15.7	66443
14	BS13(S)C7-032-1-1-1-1	5728-29	9	10.90	15.0	17.6	66443
15	BS10(FR)C12-3834-15-1-1	5730-31	19	9.00	7.0	19.0	66443
16	PA95-46	5687 or 5701	13	10.17	47.0	19.0	66443
17	PA95-60	5689 or 5702	10	10.83	6.0	18.3	66443
18	PA95-72	5690 or 5704	16	9.96	4.0	19.0	66443
19	DE(BSSS)C2-68-1-2-1-1	5691 or 5705	23	8.07	31.0	17.4	66443
20	DE(BSSS)C2-420-3-2-1-1	5695 or 5709	8	11.12	12.0	18.4	66443
21	DE(BSSS)C2-612-4-3-1-1	5751-5752	4	11.74	13.0	18.8	66443
22	B73 x Mo17		1	12.40	11.0	18.3	66443
23	Pioneer 3394		12	10.23	16.0	16.8	66443
	Experimental minimum			8.07	4.0	15.7	
	Experimental mean			10.21	19.4	18.5	
	Experimental maximum			11.97	50.0	21.3	
	LSD (.05)			2.16	19.2	2.3	
	C.V. %			10.07	46.80	6.12	

Table 12. Regional 700-800, Lancaster, Pa - 2001, Penn State

Entry	Pedigree	Seed Source	Yield Rank	Yield Mg/ha	ERECT %	Moisture %	Stand pl/ha
1	BS16(HI)CO-253-1-1-1-1-1-1-1-1XLH198	4879-80	10	5.6	90.0	20.6	64220
2	BS11(S2)C4-198-1-1-1-2-1-1-1XLH198	4883-84	15	5.2	98.6	22.5	64220
3	BS26(S-H)C4-42-1-1-1XLH198	4887-88	12	5.4	85.4	22.1	64220
4	OhSyn3 E6-5-4-2-3XLH198	4864 or 4872	16	5.1	99.6	18.0	64220
5	OhSyn3 E6-5-1-3-5XLH198	4865 or 4873	7	5.8	97.4	18.0	64220
6	PA95-77XLH198	4867 or 4875	3	6.4	91.1	22.0	64220
7	PA95-82XLH198	4868 or 4876	17	4.9	93.6	21.7	64220
8	PA95-92XLH198	4869 or 4877	9	5.6	92.7	23.9	64220
9	B97/B95-001-1-1-1XLH198	5714-15	20	4.0	92.4	19.4	64220
10	B97/B95-094-1-1-1-1-1-1XLH198	5716-17	4	6.1	94.2	21.7	64220
11	B97/B95-107-1-1-1-1-1-1XLH198	5718-19	6	6.0	94.6	22.2	64220
12	B97/B99-047-1-1-1-1-1-2XLH198	5724-25	2	6.5	92.4	18.8	64220
13	BS13(S)C7-226-1-1-1-1XLH198	5726-27	5	6.0	94.4	20.5	64220
14	BS13(S)C7-032-1-1-1-1XLH198	5728-29	13	5.3	96.7	20.7	64220
15	BS10(FR)C12-3834-15-1-1XLH198	5730-31	14	5.3	96.6	20.5	64220
16	PA95-46XLH198	5687 or 5701	21	3.4	98.1	22.9	64220
17	PA95-60XLH198	5689 or 5702	18	4.6	90.8	22.5	64220
18	PA95-72XLH198	5690 or 5704	19	4.5	96.2	22.3	64220
19	DE(BSSS)C2-68-1-2-1-1XLH198	5691 or 5705	11	5.5	95.7	20.4	64220
20	DE(BSSS)C2-420-3-2-1-1XLH198	5695 or 5709	8	5.8	95.1	21.9	64220
21	DE(BSSS)C2-612-4-3-1-1XLH198	5751 or 5752	1	7.2	98.4	21.9	64220
Experimental Mean				5.4	94.5	21.2	64220
C.V.%				1.3	4.3	4.3	
LSD .05				1.6	5.6	1.2	

Table 13. NCR-167 700-800 Test at College Station, Texas 2001

Entry Pedigree	Origin	Female Flower	Plant height	Ear height	Ear to Plant Ratio	Root Lodg.	Stalk Lodg.	Plant Pop.	Grain Yield	Grain Yield	Moisture %	Test Weight	Test Weight	Yield Rank	
		d	cm	cm		%	%	1000s/ha	bu/ac	tn/ha		lb/bu	kg/hl		
1	BS16(HI)CO-253-1-1-1-1-1-1-1-1	4879-80	83.1	238.7	79.8	0.3	0.0	11.5	57.3	130.2	8.1	11.0	60.9	78.3	17
2	BS11(S2)C4-198-1-1-1-2-1-1-1	4883-84	81.5	232.4	82.4	0.4	0.5	14.6	60.1	143.5	9.0	11.3	62.9	81.0	14
3	BS26(S-H)C4-42-1-1-1	4887-88	83.1	255.4	108.0	0.4	0.0	22.4	57.0	145.8	9.1	10.8	62.5	80.4	13
4	OhSyn3 E6-5-4-2-3	4864 or 4872	84.4	257.1	87.5	0.3	0.0	1.9	55.3	113.7	7.1	10.8	58.7	75.5	24
5	OhSyn3 E6-5-1-3-5	4865 or 4873	84.6	235.3	97.4	0.4	0.0	11.9	55.8	116.4	7.3	10.5	59.6	76.8	23
6	PA95-77	4867-4875	83.9	267.4	105.6	0.4	0.0	22.0	61.2	157.4	9.8	10.6	61.5	79.1	5
7	PA95-82	4868-4876	83.1	236.6	90.2	0.4	0.0	16.7	51.8	121.6	7.6	11.1	59.4	76.4	22
8	PA95-92	4869-4877	82.4	255.2	85.3	0.3	0.0	4.0	62.7	136.3	8.5	10.7	61.2	78.7	16
9	B97/B95-001-1-1-1	5714-15	84.8	253.2	85.6	0.3	0.5	4.4	66.6	155.8	9.7	10.5	57.0	73.4	6
10	B97/B95-094-1-1-1-1-1-1	5716-17	82.7	263.1	95.2	0.4	0.0	1.9	59.1	141.7	8.9	10.5	58.7	75.6	15
11	B97/B95-107-1-1-1-1-1-1	5718-19	82.0	246.3	59.6	0.2	0.0	0.0	51.4	108.8	6.8	10.5	61.2	78.8	25
12	B97/B95-047-1-1-1-1-1-2	5724-25	80.8	255.0	90.0	0.4	0.0	1.4	65.4	178.8	11.2	10.4	57.9	74.5	2
13	BS13(S)C7-226-1-1-1-1	5726-27	82.4	235.0	63.2	0.3	0.0	1.7	62.0	155.6	9.7	10.3	59.0	76.0	7
14	BS13(S)C7-032-1-1-1-1	5728-29	81.4	238.5	77.3	0.3	0.0	7.4	51.9	124.4	7.8	10.5	58.0	74.7	19
15	BS10(FR)C12-3834-15-1-1	5730-31	80.7	239.0	74.1	0.3	0.0	0.3	64.7	122.6	7.7	10.6	59.4	76.5	21
16	PA95-46	5687 or 5701	81.3	248.7	67.1	0.3	0.0	2.0	60.3	153.3	9.6	10.5	58.5	75.3	8
17	PA95-60	5690 or 5702	82.9	242.2	64.6	0.3	0.5	2.2	60.4	147.7	9.2	10.9	59.5	76.5	12
18	PA95-72	5690 or 5704	83.4	245.8	71.9	0.3	0.0	0.0	64.2	150.7	9.4	10.6	59.8	76.9	10
19	DE(BSSS)C2-68-1-2-1-1	5691 or 5705	83.1	247.7	78.9	0.3	0.0	0.0	62.9	148.4	9.3	10.4	58.5	75.3	11
20	DE(BSSS)C2-420-3-2-1-1	5695 or 5709	82.5	252.7	76.5	0.3	1.9	1.0	56.3	124.2	7.8	10.9	60.5	77.9	20
21	DE(BSSS)C2-612-4-3-1-1	5751-5752	82.4	256.4	77.3	0.3	1.3	2.9	59.3	152.5	9.5	10.8	59.8	76.9	9
22	BSSSC14 x BSCBC14	ISU	83.6	264.2	109.8	0.4	1.1	4.7	62.5	126.4	7.9	10.7	60.9	78.3	18
23	RX897	Asgrow-2001	85.5	245.2	97.9	0.4	0.0	3.4	58.0	160.5	10.0	11.1	60.1	77.3	4
24	DK668	Dekalb-2001	85.2	237.4	97.8	0.4	0.0	7.0	55.4	161.9	10.1	10.7	60.8	78.3	3
25	DK687	Dekalb-2001	86.3	258.5	96.8	0.4	0.0	14.0	63.3	185.9	11.6	10.8	60.7	78.1	1
Mean			83.1	248.3	84.8	0.3	0.2	6.3	59.4	142.6	8.9	10.7	59.9	77.1	
LSD			2.6	20.3	21.7	0.1	1.2	10.8	12.2	33.9	2.1	0.6	1.5	2.0	
CV			2.2	5.2	15.5	13.1	323.1	104.9	12.9	14.8	14.8	3.7	1.7	1.7	
Min			80.7	232.4	59.6	0.2	0.0	0.0	51.4	108.8	6.8	10.3	57.0	73.4	
Max			86.3	267.4	109.8	0.4	1.9	22.4	66.6	185.9	11.6	11.3	62.9	81.0	

Agronomic Data:
 Previous crop: cotton. N fertilizer: 630 lb 12-12-0 & 400 lb 4-5-01. P fertilizer: 630 lb P. K fertilizer: 315 lb K. Date planting: 2-23-01.
 Herbicide: Metolachlor. Insecticide: 3.25 lb/ac Force at planting. Planted density (100%): 35,000. Irrigation: yes. Plots: 2 rows plots of 21' length and 20' between rows.