

FIELD EXPERIMENT HISTORY

Expt. Number:

Year: 1996

Title: LANDEC Corn Seed Treatment Study

Personnel: J.G. Lauer, K.D. Hudelson

Location: Arlington Research Station, Arlington, WI

Supported by: Landec Corporation

FIELD INFORMATION

Field: 338

Soil Type: Plano Silt Loam

Soil Test Results: Test Date: 4/95 pH: 7.0 P (ppm): 50 K (ppm): 105 OM (%): 4.0

Fertilizer: 19-Apr 150 lbs N/a 46-0-0
24-Apr 150 lbs/a 6-24-24 starter
15-May 150 lbs/a 6-24-24 starter

Tillage Operations: None

Previous Crop: Corn

Irrigation: None

EXPERIMENTAL PROCEDURE

Exp. Design: RCB Split Plot

Replicates: 4

Variables: A: Planting Date, B: Seed Treatment

Planting Dates: Early: 24-Apr
Late: 15-May

Seed Treatments: DK527 Coat A
DK527 Coat B
DK527 UTC+Fung
Hybrid XI Coat A
Hybrid XI Coat A+Fung
Hybrid XI UTC
Hybrid XI UTC+Fung
P3373 Coat A
P3373 Coat B
P3373 UTC+Fung

Area Planted: 10' x 30'

Area Harvested: 5.0' x 22.5'

Row Spacing: 30"

Planting Equip: No-Till: JD 7000 Planter w/ 1 fluted and 2 ripple coulters

Planting Rate: 32,000 seeds/acre

Harvesting Date: 11-Nov

Harvesting Equip: Gleaner Plot Combine

	<u>Date</u>	<u>Material</u>	<u>Rate</u>	<u>Method</u>
Insecticide:	24-Apr	Lorsban	8 oz/1000 ft	planter
Herbicides:	25-Apr	Roundup	4 pts/a	preemerg
	3-May	Lasso	2 qts/a	preemerg
	3-May	Bladex 90DF	2.2 lbs/a	preemerg
	30-May	Basagran	2 pts/a	post
	3-Jul	Basagran	2 pts/a	post
	24-Jul	Buctril	1.5 pts/a	post - drop nozzles

Table E-43. LANDEC Corn Seed Treatment Study. Arlington, WI 1996

Date of Planting (Day of Year)	Hybrid Seed Treatment	Date (Day of Year)								Extended Leaf		Final Population	Lodged & Broken		Yield
		26-May (146)	29-May (149)	31-May (151)	3-Jun (154)	5-Jun (156)	7-Jun (158)	10-Jun (161)	12-Jun (163)	Height - Day 200	Std. Dev.		Plants	Moisture	
		% Emergence								inches		plants/a	%	%	bu/a
24-Apr (114)		17.4	33.0	62.6	74.0	72.2	77.0	78.4	.	65.3	5.1	27956	58.5	29.8	106.1
15-May (135)		.	17.9	34.3	64.8	69.6	78.1	89.0	90.4	63.1	5.3	32254	48.7	30.2	110.5
	DK527 Coat A	24.2	22.8	43.1	57.7	68.3	76.8	91.4	93.2	64.2	4.0	33735	70.9	27.8	100.0
	DK527 Coat B	18.5	20.0	39.0	58.0	66.3	81.9	92.9	91.6	63.2	4.5	33009	56.0	27.5	112.9
	DK527 UTC+Fung	19.6	40.4	76.2	91.6	81.3	92.8	94.8	100.0	66.0	5.1	34654	55.4	26.1	119.2
	Hybrid XI Coat A	12.8	14.8	31.1	56.5	61.4	59.7	67.0	78.8	61.9	8.0	24829	30.4	31.5	102.6
	Hybrid XI Coat A+Fung	22.0	24.9	46.7	69.3	73.8	75.1	82.6	87.8	67.7	6.1	30637	28.3	31.1	108.4
	Hybrid XI UTC	0.3	12.9	23.2	37.1	37.4	38.6	43.5	89.1	63.7	6.3	16214	9.0	30.8	106.4
	Hybrid XI UTC+Fung	15.8	32.6	62.5	86.0	80.2	86.7	89.1	89.7	66.2	6.1	30976	31.1	30.9	116.0
	P3373 Coat A	25.3	27.2	47.8	76.8	76.9	87.1	91.9	91.9	62.8	3.5	32622	75.8	31.7	105.5
	P3373 Coat B	17.4	20.1	39.7	69.3	71.2	82.6	88.6	87.8	61.7	4.6	31363	85.8	31.7	99.6
	P3373 UTC+Fung	18.2	38.7	75.1	91.6	92.0	94.2	95.0	91.6	64.0	4.5	33009	69.0	31.5	112.4
24-Apr (114)	DK527 Coat A	24.2	44.0	80.2	91.0	92.1	94.8	96.2	.	68.5	3.9	34074	67.4	26.6	99.3
15-May (135)	DK527 Coat A	.	1.6	6.0	24.5	44.6	58.7	86.7	93.2	60.0	4.0	33396	74.4	29.1	100.8
24-Apr (114)	DK527 Coat B	18.5	34.5	66.9	86.7	85.6	92.4	94.0	.	62.2	5.7	33396	63.2	26.7	118.1
15-May (135)	DK527 Coat B	.	5.4	11.1	29.4	47.0	71.5	91.9	91.6	64.3	3.3	32622	48.9	28.3	107.6
24-Apr (114)	DK527 UTC+Fung	19.6	38.0	75.3	87.5	80.2	89.7	91.0	.	66.2	4.0	32525	57.9	25.9	126.8
15-May (135)	DK527 UTC+Fung	.	42.7	77.2	95.7	82.3	95.9	98.6	100.0	65.9	6.1	36784	52.8	26.2	111.7
24-Apr (114)	Hybrid XI Coat A	12.8	23.9	45.9	56.0	54.4	58.2	59.2	.	63.3	8.1	21490	13.3	31.0	101.4
15-May (135)	Hybrid XI Coat A	.	5.7	16.3	57.1	68.5	61.1	74.7	78.8	60.5	7.9	28169	47.5	32.1	103.8
24-Apr (114)	Hybrid XI Coat A+Fung	22.0	41.9	77.2	78.0	79.6	79.4	81.3	.	72.9	5.3	29621	26.3	31.0	113.9
15-May (135)	Hybrid XI Coat A+Fung	.	7.9	16.3	60.6	67.9	70.9	84.0	87.8	62.6	6.8	31654	30.2	31.2	102.9
24-Apr (114)	Hybrid XI UTC	0.3	0.8	3.0	1.6	3.0	1.6	2.2	.	.	.	871	.	.	.
15-May (135)	Hybrid XI UTC	.	25.0	43.5	72.6	71.7	75.5	84.8	89.1	63.7	6.3	31557	9.0	30.8	106.4
24-Apr (114)	Hybrid XI UTC+Fung	15.8	32.9	69.0	82.6	82.1	82.9	84.8	.	68.1	5.3	30202	28.0	31.2	105.6
15-May (135)	Hybrid XI UTC+Fung	.	32.3	56.0	89.4	78.3	90.5	93.5	89.7	64.3	6.9	31750	34.2	30.5	126.4
24-Apr (114)	P3373 Coat A	25.3	41.6	67.7	82.3	73.6	89.1	90.8	.	63.6	3.7	32331	89.9	32.1	106.6
15-May (135)	P3373 Coat A	.	12.8	28.0	71.2	80.2	85.1	92.9	91.9	62.0	3.3	32912	61.6	31.4	104.4
24-Apr (114)	P3373 Coat B	17.4	34.2	66.3	84.0	79.6	87.8	89.4	.	61.7	5.0	31557	97.2	32.0	89.4
15-May (135)	P3373 Coat B	.	6.0	13.0	54.6	62.8	77.5	87.8	87.8	61.8	4.3	31170	74.4	31.5	109.8
24-Apr (114)	P3373 UTC+Fung	18.2	38.3	74.7	90.5	91.3	94.0	94.8	.	61.7	4.6	33493	83.4	32.1	93.5
15-May (135)	P3373 UTC+Fung	.	39.1	75.5	92.7	92.7	94.3	95.1	91.6	66.2	4.4	32525	54.6	30.8	131.3
Mean		17.4	25.4	48.5	69.4	70.9	77.5	83.7	90.4	64.2	5.2	30105	53.4	30.0	108.4
Probability (%)															
Date of Planting (D)		.	2.0	0.2	1.1	21.4	6.1	0.3	.	14.9	> 50	0.3	33.0	> 50	> 50
Seed Treatment (S)		< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	7.4	43.9	7.4	< 0.1	< 0.1	< 0.1	42.8
D x S		.	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	.	2.2	> 50	< 0.1	46.5	2.3	10.2
LSD (0.10)															
Date of Planting (D)		.	7.1	5.7	3.9	NS	1.2	2.9	.	NS	NS	1116	NS	NS	NS
Seed Treatment (S)		7.4	6.0	9.0	8.4	9.9	7.6	7.3	9.9	NS	2.2	2558	24.6	1.0	NS
CV%		35.4	28.1	22.3	14.4	16.7	11.8	10.4	9.1	6.4	51.1	10.2	55.2	3.9	18.1

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FIELD INFORMATION

Field: 338

Soil Type: Plano Silt Loam

Soil Test Results: Test Date: 4/95 pH: 7.0 P (ppm): 50 K (ppm): 105 OM (%): 4.0

Fertilizer: 19-Apr 150 lbs N/a 46-0-0
15-May 150 lbs/a 6-24-24 starter

Tillage Operations: None

Previous Crop: Corn

Irrigation: None

EXPERIMENTAL PROCEDURE

Exp. Design: RCB

Replicates: 4

Variables: A: Seed Treatment: Coat B
Coat B+Fung
UTC
UTC+Fung

Variety: Sweet Jubilee

Area Planted: 10' x 30'

Area Harvested: 5.0' x 25'

Row Spacing: 30"

Planting Date: 15-May

Planting Equip: No-Till: JD 7000 Planter w/ 1 fluted and 2 bubble coulters

Planting Rate: 32,000 seeds/acre

Harvesting Date:

Harvesting Equip:

	<u>Date</u>	<u>Material</u>	<u>Rate</u>	<u>Method</u>
Insecticide:	15-May	Lorsban	8 oz/1000 ft	planter
Herbicides:	25-Apr	Roundup	4 pts/a	preemerg
	3-May	Lasso	2 qts/a	preemerg
	3-May	Bladex 90DF	2.2 lbs/a	preemerg
	30-May	Basagran	2 pts/a	post
	3-Jul	Basagran	2 pts/a	post
	24-Jul	Buctril	1.5 pts/a	post - drop nozzles

Results: Table E-44.

**Table E-44. LANDEC Sweet Corn Seed Treatment Study.
Arlington, WI 1996**

Seed Treatment	Date (Day of Year)					Extended Leaf		31-May
	31-May (151)	3-Jun (154)	5-Jun (156)	10-Jun (161)	12-Jun (163)	Height - Day 211 Mean	Std. Dev.	
	% Emergence inches							
2 Coat B	5.2	14.1	17.4	28.8	30.4	56.8	7.8	
3 Coat B+Fung	11.7	26.1	28.8	41.6	44.3	58.4	9.8	
4 UTC	6.8	16.0	21.7	26.4	25.8	51.4	11.4	
5 UTC+Fung	23.1	50.5	56.3	62.0	58.2	61.9	9.1	
6 Mean	11.7	26.7	31.1	39.7	39.7	57.5	9.5	
Probability (%)								
Seed Treatment (S)	0.2	< 0.1	< 0.1	< 0.1	< 0.1	28.0	> 50	
LSD (0.10)								
Seed Treatment (S)	6.2	10.1	9.8	6.4	9.0	NS	NS	
CV%								
	41.1	30.9	24.4	12.5	17.5	11.1	41.0	