

FIELD EXPERIMENT HISTORY

Expt. Number: 08 Intellicoat **Year:** 1997
Title: INTELLICOAT Corn Seed Treatment Study
Personnel: J.G. Lauer, K.D. Kohn, P.J. Flannery, K.D. Hudelson and H.M. Darby
Location: Arlington Research Station, Arlington, WI
Supported by: Intellicoat, Inc.

FIELD INFORMATION

Field: 427
Soil Type: Plano Silt Loam
Soil Test Results: Test Date: 4/95 pH: 6.7 P (ppm): 60 K (ppm): 170 OM (%): 4.0
Fertilizer: 24-Apr 150 lbs N/A 46-0-0
24-Apr 150 lbs/A 6-24-24 starter
13-May 150 lbs/A 6-24-24 starter
Herbicide: Frontier @ 20oz/A & Bladex 90DF @ 2.2lbs/A
Tillage Operations: Chisel Plow, Field Cultivator
Field Cultivate prior to each planting
Previous Crop: Soybeans
Irrigation: None

EXPERIMENTAL PROCEDURE

Exp. Design: RCB Split Plot
Replicates: 4
Variables: A: Planting Date, B: Seed Treatment
Planting Dates: Early: 24-Apr
Late: 13-May
Seed Treatments: Hybrid1 CoatA
Hybrid1 UTC
Hybrid2 CoatA
Hybrid2 CoatB
Hybrid2 UTC
Hybrid4 CoatA
Hybrid4 UTC
Hybrid5A CoatA
Hybrid5A UTC
Hybrid19 CoatA
Hybrid19 UTC
Area Planted: 10' x 30'
Area Harvested: 5.0' x 22.5'
Row Spacing: 30"
Planting Equip: JD 7000 Planter w/ 1 fluted and 2 ripple coulters
Planting Rate: 32,000 seeds/acre
Harvesting Date: 5-Nov
Harvesting Equip: Kincaid Plot Combine

Results: Table E-40.

**Table E-40. INTELLICOAT Corn Seed Treatment Study.
Arlington, WI 1997**

Date of Planting	Hybrid Seed Treatment	Yield bu/A	Moist %	Test Wt lbs.	Broken Stalks %	Harv Pop plants/A	Date (Day of Year)										Plant Height inches	Silk 8/2 (214) %
							5/15 (135)	5/19 (139)	5/21 (141)	5/23 (143)	5/27 (147)	5/30 (150)	6/2 (153)	6/4 (155)	6/25 (176)	11/5 (309)		
							% emergence											
	Hybrid01 CoatA	122.9	21.3	55	13.9	24206	0.3	3.1	10.6	47.8	56.3	40.2	51.7	78.3	82.0	88.1	29.4	89
	Hybrid01 UTC	127.4	20.2	56	18.6	24503	11.9	74.4	80.3	90.3	95.3	87.2	91.1	92.5	93.1	96.4	33.7	100
	Hybrid02 CoatA	147.0	20.6	57	7.4	24305	0.0	15.0	38.8	75.6	79.7	62.2	78.8	91.3	92.5	91.3	31.5	100
	Hybrid02 CoatB	142.0	19.8	56	10.8	23166	0.3	8.1	23.1	64.1	64.4	57.3	71.4	87.3	88.3	90.2	30.9	100
	Hybrid02 UTC	145.0	19.7	56	13.8	24552	21.6	71.3	79.4	90.6	87.5	74.4	90.5	91.6	91.7	94.5	34.1	100
	Hybrid04 CoatA	173.1	29.6	51	41.3	25542	0.3	7.2	20.3	63.4	69.1	45.5	69.5	88.0	89.8	91.7	29.2	63
	Hybrid04 UTC	181.1	29	51	40.6	24998	3.1	57.5	74.1	92.2	90.3	76.4	93.1	95.6	95.8	95.3	31.1	66
	Hybrid05A CoatA	167.0	32.7	50	43.8	25443	0.0	1.3	6.3	45.9	56.3	44.1	65.0	84.4	87.8	92.3	26.7	56
	Hybrid05A UTC	173.6	28.3	52	40.5	27324	2.5	53.8	66.3	86.6	85.9	87.8	95.2	95.3	96.9	96.4	30.6	59
	Hybrid19 CoatA	169.4	25.3	55	11.9	24107	0.9	2.5	12.5	48.4	57.2	39.4	52.0	68.4	71.4	76.6	30.3	84
	Hybrid19 UTC	181.3	23.9	55	4.9	22275	13.1	58.1	66.9	74.7	74.7	77.8	72.3	77.5	74.4	76.1	34.9	81
24-Apr		161.2	22.8	54	17.7	24264	4.9	32.0	43.4	70.9	74.2	73.0	85.2	85.2	85.2	87.7	34.1	87
13-May		153.3	26.3	55	27.3	24903	-	-	-	-	-	52.8	65.9	87.6	90.1	92.1	28.2	77
24-Apr	Hybrid01 CoatA	121.0	19.5	55	4.3	23958	0.3	3.1	10.6	47.8	56.3	57.5	86.3	86.3	86.3	86.3	33.4	78
24-Apr	Hybrid01 UTC	131.1	19.1	56	7.1	23562	11.9	74.4	80.3	90.3	95.3	89.4	88.4	88.4	88.4	96.9	36.0	100
24-Apr	Hybrid02 CoatA	152.4	20	57	10.6	23067	0.0	15.0	38.8	75.6	79.7	85.0	88.1	88.1	88.1	87.5	35.3	100
24-Apr	Hybrid02 CoatB	149.5	18.2	55	10.8	24552	0.3	8.1	23.1	64.1	64.4	84.1	85.3	85.3	85.3	88.8	35.1	100
24-Apr	Hybrid02 UTC	151.9	18.8	55	5.6	23958	21.6	71.2	79.4	90.6	87.5	69.7	85.6	85.6	85.6	91.6	35.4	100
24-Apr	Hybrid04 CoatA	188.5	28.1	52	48.9	25542	0.3	7.2	20.3	63.4	69.1	63.8	90.6	90.6	90.6	89.1	32.3	81
24-Apr	Hybrid04 UTC	192.5	26.8	51	16.7	25047	3.1	57.5	74.1	92.2	90.3	71.3	94.1	94.1	94.1	93.8	33.8	75
24-Apr	Hybrid05A CoatA	165.0	31	47	34.0	25740	0.0	1.3	6.3	45.9	56.3	64.7	84.7	84.7	84.7	90.3	29.3	69
24-Apr	Hybrid05A UTC	166.3	24.2	52	38.9	26037	2.5	53.8	66.3	86.6	85.9	85.9	91.3	91.3	91.3	91.3	32.8	63
24-Apr	Hybrid19 CoatA	172.9	23.2	54	14.6	23265	0.9	2.5	12.5	48.4	57.2	53.8	68.8	68.8	68.8	73.1	34.8	100
24-Apr	Hybrid19 UTC	182.1	22.4	55	3.4	22176	13.1	58.1	66.9	74.7	74.7	78.1	73.8	73.8	73.8	76.3	37.3	88

continued

**Table E-40. INTELLICOAT Corn Seed Treatment Study.
Arlington, WI 1997**

Date of Planting	Hybrid Seed Treatment	Yield bu/A	Moist %	Test Wt lbs.	Broken Stalks %	Harv Pop plants/A	Date (Day of Year)										Plant Height inches	Silk (214) %	
							5/15 (135)	5/19 (139)	5/21 (141)	5/23 (143)	5/27 (147)	5/30 (150)	6/2 (153)	6/4 (155)	6/25 (176)	11/5 (309)			% emergence
13-May	Hybrid01 CoatA	124.7	23.2	56	23.5	24453	-	-	-	-	-	22.8	17.2	70.3	77.8	90.0	25.5	100	
13-May	Hybrid01 UTC	123.6	21.3	56	30.1	25443	-	-	-	-	-	85.0	93.8	96.6	97.8	95.9	31.4	100	
13-May	Hybrid02 CoatA	141.6	21.1	57	4.2	25542	-	-	-	-	-	39.4	69.4	94.4	96.9	95.0	27.8	100	
13-May	Hybrid02 CoatB	134.6	21.4	57	10.9	21780	-	-	-	-	-	30.6	57.5	89.4	91.3	91.6	26.8	100	
13-May	Hybrid02 UTC	138.2	20.6	57	22.1	25146	-	-	-	-	-	79.1	95.3	97.5	97.8	97.5	32.9	100	
13-May	Hybrid04 CoatA	157.7	31.2	51	33.6	25542	-	-	-	-	-	27.2	48.4	85.3	89.1	94.4	26.1	44	
13-May	Hybrid04 UTC	169.8	31.2	50	64.5	24948	-	-	-	-	-	81.6	92.2	97.2	97.5	96.9	28.5	56	
13-May	Hybrid05A CoatA	169.0	34.5	53	53.7	25146	-	-	-	-	-	23.4	45.3	84.1	90.9	94.4	24.1	44	
13-May	Hybrid05A UTC	180.8	32.5	52	42.0	28611	-	-	-	-	-	89.7	99.1	99.4	102.5	101.6	28.5	56	
13-May	Hybrid19 CoatA	166.0	27.4	56	9.2	24948	-	-	-	-	-	25.0	35.3	68.1	74.1	80.0	25.8	69	
13-May	Hybrid19 UTC	180.6	25.5	56	6.4	22374	-	-	-	-	-	77.5	70.9	81.3	75.0	75.9	32.6	75	
Mean		157.3	24.6	54	22.5	24584	4.9	32.0	43.4	70.9	74.2	62.9	75.5	86.4	87.6	89.9	31.1	82	
<u>Probability (%)</u>																			
Date of Planting (D)		15.6	97.5	27.4	31.6	53.5	-	-	-	-	-	40.0	0.1	19.9	3.5	2.7	0.0	8.0	
Seed Treatment (S)		0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
DxS		41.0	10.4	41.6	11.5	47.7	-	-	-	-	-	1.5	0.0	0.3	3.4	56.9	18.7	0.2	
<u>LSD (.010)</u>																			
Date of Planting (D)		NS	NS	NS	NS	NS	-	-	-	-	-	NS	2.0	NS	2.2	1.8	0.4	6.2	
Seed Treatment (S)		11.5	1.3	1.7	12.7	1451	3.5	4.6	4.6	4.2	5.5	14.0	4.8	4.0	3.8	3.3	1.5	8.7	
<u>CV%</u>		11	8	5	87	9	109	22	16	9	11	34	10	7	7	6	8	16	