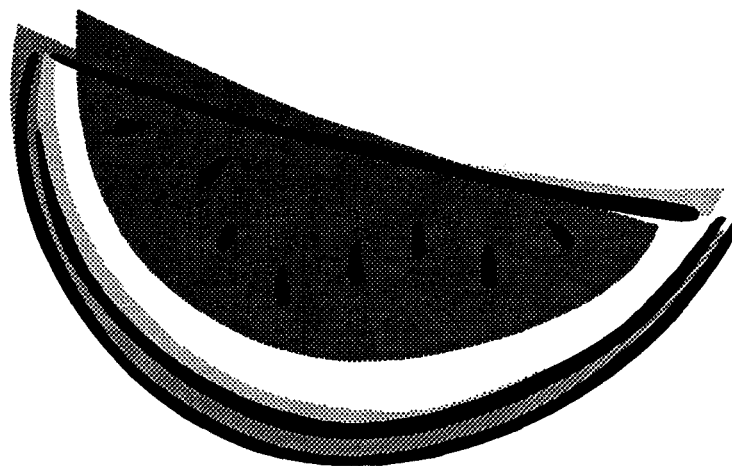


University of Delaware

**Seeded Watermelon Variety
Trial Results**



2000

Ed Kee and Tracy Wootten
University of Delaware
Research and Education Center
RD 6 Box 48
Georgetown, DE 19947

Table of Contents

Contents	Page
General Information for Trial Including Results and Discussion	1
Acknowledgements	3
Table 1. Yield Results for the 2000 University of Delaware Replicated Seeded Watermelon Variety Trial – Average for Three Replications	4
Table 2. Weight Distribution for Total Yield in the 2000 University of Delaware Replicated Seeded Watermelon Variety Trial	6
Table 3. Germination Percentages for the 2000 University of Delaware Replicated Seeded Watermelon Variety Trial	7
Table 4. Percent Hollow Heart in Cut Melons During the Harvest of the 2000 University of Delaware Replicated Seeded Watermelon Variety Trial.	8
Table 5. Descriptions of Seeded Watermelon Entries for 2000 and Seed Source	9
Monthly Weather Summary for the 2000 Watermelon Growing Season June-August	14

2000 University of Delaware Seeded Watermelon Variety Trial

Tracy Wootten, Ed Kee, Derby Walker, James Adkins, University of Delaware
Research & Education Center, R.D. 6, Box 48, Georgetown, Delaware 19947
Phone: 302-856-7303, Fax: 302-856-1845
E-mail: wootten@udel.edu, kee@udel.edu, derby@udel.edu , adkins@udel.edu

The 2000 Seeded Watermelon Variety Trial was planted at the University of Delaware Research & Education Center. The objective: to evaluate seeded watermelon varieties under Delaware growing conditions. The parameters for evaluation included yield, quality and maturity.

The trial was located in field 6D on the University of Delaware Research & Education Center farm. The field was worked May 11, 2000. Based on soil test results, 0-0-60 was broadcast at 200 lbs./A. On the same date, 30% UAN at 15 gal./A and Diazinon AG500 at 0.75 gal./A (for seed corn maggot control) was applied to the beds. Black plastic mulch with trickle irrigation was laid on 8' centers in the beds. Sinbar at 3 oz./A on May 25, 2000 for weed control.

The trial had 24 entries. Plants were seeded in the greenhouse on May 8, 2000 and transplanted to the field on June 12, 2000. The plots were one-row plots, replicated three times using a randomized complete block design. Seven plants per variety were planted using a 3' in-row spacing. On June 8, 2000 Agrimek at 16 oz./A was applied for mite control. The remainder of the nitrogen was applied through the drip system on July 8, July 28 and August 18 at the rate of 30 lbs of N per application. Chlorothalonil and Quadris were alternated for disease control throughout the season with applications made on 6/21/00, 7/8/00, 7/22/00, 8/4/00, 8/11/00, 8/18/00.

The watermelons were harvested as they would be harvested commercially on 8/16/00 and 8/30/00. Each watermelon was weighed individually. Soluble solids were determined using a hand-held refractometer on six fruit per replication. The growing season was cool and wet. Disease pressure was heavy. Gummy stem blight was present in the plots by the end of the season, even with regular fungicide applications. Although, 2000 was not an ideal growing season, yields were good.

Results:

Yield information can be found on Table 1. Total yield, early, mid and late harvest yields, # of melons/A, average soluble solids and average weight per melon are recorded. Table 2 lists the weight distribution for the total yield in percentage of

fruit weighing: 8.0-14.0, 14.1-18.0, 18.1-22.0, and >22.0 lbs. Total yields in 2000 ranged from 98,176 lbs/A for 'RWM 8110' to 48,284 lbs/A for 'XIT 101'. See Table 5 for descriptions of specific melons for personal preferences in exterior color and markings of each variety.

ACKNOWLEDGEMENTS

The authors wish to thank the following people and companies for their support, interest and guidance in the 2000 Seeded Watermelon Variety Trial.

Participating Seed Companies

Abbott & Cobb, Inc.	Feasterville, Pennsylvania
Agri Sales Inc.-FL	Plant City, Florida
Asgrow	Kalamazoo, Michigan
Harris Moran Seed Co.	Modesto, California
Novartis Seeds, Inc.	Gilroy, California
Petoseed	Saticoy, California
Sakata Seed America, Inc.	Morgan Hill, California
Sugar Creek	Hinton, Oklahoma
Sunseeds Co.	Acampo, California

T-Systems International, Inc. San Diego, California

A special acknowledgement to Ray and Clay Vincent of Vincent Farms for their donation of the drip tape for this trial and their support of this research.

We wish to thank Victor Green, Ward Harris and the staff at the University of Delaware Research & Education Center, Georgetown for their assistance in planting, spraying, irrigating and fertigating of the trial.

The plots could not have been harvested without the assistance of the following university students: Andrew Turner, John Gordy, Rusty Tressler Derrick Dickerson and Joe Taylor.

Table 1. Yield Results for the 2000 University of Delaware Replicated Seeded Watermelon Variety Trial - Average for Three Replications.

Variety	Trt #	Total Harvest Wt./A (lbs)	Early Harvest Wt./A (lbs)	Late Harvest Wt./A (lbs)	# Melons /A	Avg. S.S.	Avg. Wt./ Melon (lbs)	Source
RWM 8110	20	98176	31962	66214	4927	10.7	20	Novartis
RWM 8052-VP	16	88141	36715	51426	4235	10.7	21	Novartis
Summer Flavor 900	15	82977	7986	74911	4494	10.4	19	Abbott & Cobb, Inc.
W5023	12	82000	25246	56754	3889	11.0	22	Sunseeds
W5040	21	79191	31996	47195	3544	10.8	23	Sunseeds
SWD 8307	4	74060	32251	41809	3630	10.4	20	Sakata
EX 4526607	6	72809	28734	44075	4235	10.7	17	Asgrow
XP 4525247	22	69956	34390	35566	3889	11.0	18	Asgrow
W5036	17	69421	17761	51659	3544	10.8	19	Sunseeds
99-27	14	64918	20354	44563	3717	11.2	17	Harris-Moran
ASR 4927067	13	64382	21184	43198	3544	10.2	18	Asgrow
ACX 5411	1	63254	11828	51426	3025	9.9	21	Abbott & Cobb, Inc.
RWM 8074-VP	2	63163	26551	36612	3112	10.7	21	Novartis
99-26	9	62536	23608	38928	3371	11.0	19	Harris Moran
ASX 3000	7	62256	24343	37913	3198	10.6	19	Agrisales, Inc.
Summer Flavor 800	10	61936	28129	33807	3457	10.1	18	Abbott & Cobb, Inc.
Summer Flavor 910	19	59351	28915	30436	2852	10.8	21	Abbott & Cobb, Inc.
Stars N Stripes	24	59317	24079	35238	3198	10.3	19	Asgrow
RWM 8102	11	57800	26573	31227	2939	10.6	20	Novartis
Sangria (NVH4262)	23	53855	16353	37502	3025	11.0	18	Novartis

Athens	3	51599	22321	29278	2679	9.9	19	Sunseeds
ASR 4927037	18	51028	28950	22079	2420	10.6	22	Asgrow
Royal Majesty	8	49451	20419	29032	2852	11.4	17	Petoseed
XIT-101	5	48284	10549	37735	2852	10.8	17	Sugar Creek
Lsd 0.05		32979	18137	27816	1549	0.7	4	

Table 2. Weight Distribution for Total Yield in the 2000 University of Delaware
Replicated Seeded Watermelon Variety Trial.

Trt. No.	Variety	Fruit Weight (lbs.)			
		8.0 - 14.0	14.1 - 18.0	18.1 - 22.0	>22.0
		<i>Percentage of Fruit</i>			
1	ACX 5411	11	20	26	43
2	RWM 8074-VP	17	17	33	33
3	Athens	19	29	29	23
4	SWD 8307	7	29	24	40
5	XIT-101	27	37	18	18
6	EX 4526607	26	33	31	10
7	ASX 3000	13	22	43	22
8	Royal Majesty	34	21	30	15
9	99-26	21	33	20	26
10	Summer Flavor 800	23	30	24	23
11	RWM 8102	15	23	35	27
12	W5023	13	24	20	43
13	ASR 4927067	27	24	20	29
14	99-27	23	37	23	7
15	Summer Flavor 900	12	42	23	23
16	RWM 8052-VP	14	14	29	43
17	W5036	5	37	32	26
18	ASR 4927037	7	21	25	47
19	Summer Flavor 910	3	30	30	37
20	RWM 8110	14	28	23	35
21	W5040	13	18	36	33
22	XP 4525247	22	27	27	24
23	Sangria (NVH4262)	28	26	23	23
24	Stars N Stripes	8	35	43	14

Table 3. Germination Percentages for the 2000 University of Delaware
Replicated Seeded Watermelon Variety Trial.

Seeds were sown in the greenhouse on May 8, 2000.

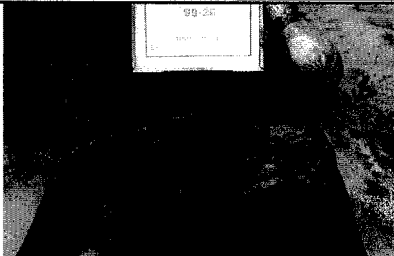
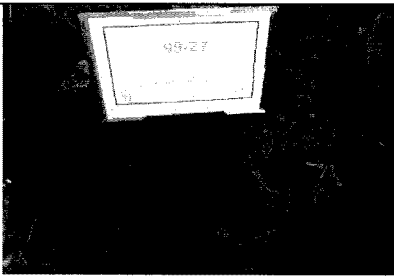

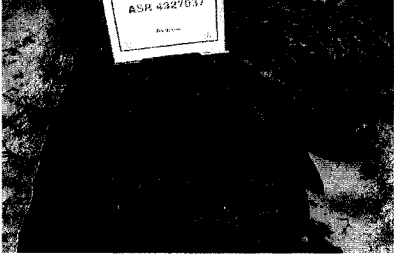

Trt	Variety	5/18/00
1.	ACX 5411	99
2.	RWM 8074-VP	100
3.	Athens	96
4.	SWD 8307	88
5.	XIT-101	100
6.	EX 4526607	99
7.	ASX 3000	97
8.	Royal Majesty	99
9.	99-26	97
10.	Summer Flavor 800	100
11.	RWM 8102	99
12.	W5023	83
13.	ASR 4927067	100
14.	99-27	99
15.	Summer Flavor 900	94
16.	RWM 8052-VP	99
17.	W5036	99
18.	ASR 4927037	97
19.	Summer Flavor 910	98
20.	RWM 8110	100
21.	W5040	94
22.	XP 4525247	100
23.	Sangria (NVH4262)	100
24.	Stars N Stripes	100

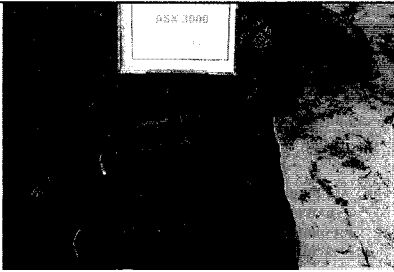
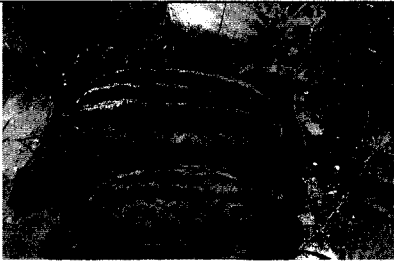
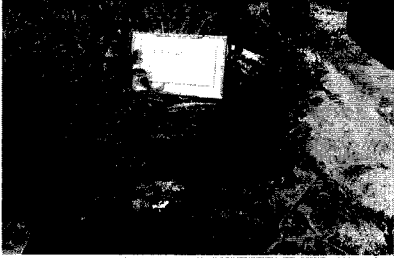
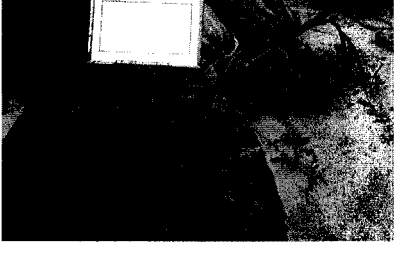


Table 4. Percent Hollow Heart in Cut Melons During the Harvest of the 2000 University of Delaware Replicated Seeded Watermelon Variety Trial.


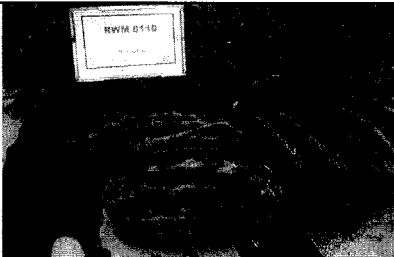
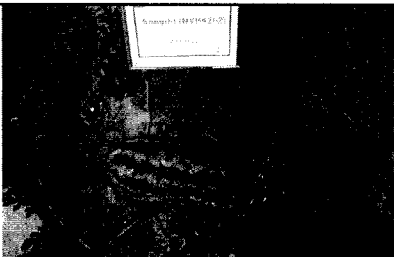
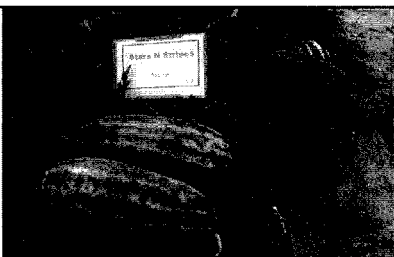

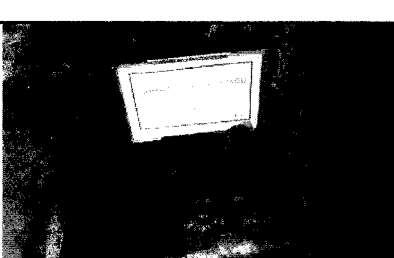
Trt. No.	Variety	Total # of Melons Cut (2 harv./3 rep.)	# of Melons w/H.H.	%
1	ACX 5411	6	2	33
2	RWM 8074-VP	14	0	0
3	Athens	11	1	9
4	SWD 8307	15	0	0
5	XIT-101	6	1	17
6	EX 4526607	15	1	7
7	ASX 3000	12	1	8
8	Royal Majesty	9	3	33
9	99-26	12	0	0
10	Summer Flavor 800	18	1	6
11	RWM 8102	16	1	6
12	W5023	12	2	17
13	ASR 4927067	12	2	17
14	99-27	11	1	9
15	Summer Flavor 900	3	0	0
16	RWM 8052-VP	14	3	21
17	W5036	11	0	0
18	ASR 4927037	14	2	14
19	Summer Flavor 910	17	1	6
20	RWM 8110	17	0	0
21	W5040	16	0	0
22	XP 4525247	15	3	20
23	Sangria (NVH4262)	10	2	20
24	Stars N Stripes	15	0	0

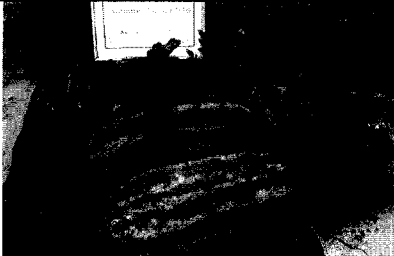


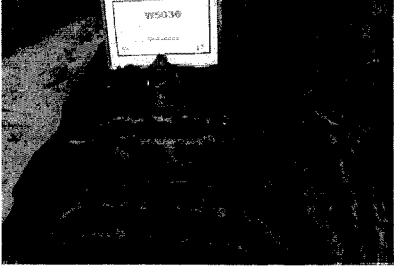


¹ Total number cut for three reps on first harvest. No hollow heart was taken on second harvest.

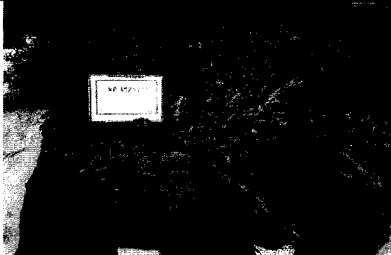
Table 5. Descriptions of Seeded Watermelon Entries for 2000 and Seed Source.

Variety		Description	Source
99-26	 A black and white photograph of a watermelon variety 99-26. The watermelon is elongated and oval-shaped, resting on a dark surface. A small white label with the number '99-26' is attached to the top of the watermelon.	Elongated/oval. Wide, indistinct dark-green stripes on a light-green background. 'Allsweet' type. Red flesh.	Harris Moran
99-27	 A black and white photograph of a watermelon variety 99-27. The watermelon is elongated and blocky, resting on a dark surface. A small white label with the number '99-27' is attached to the top of the watermelon.	Elongated, blocky, indistinct, medium-width dark-green stripes on medium-green background. 'Allsweet' type. Red flesh.	Harris Moran
ACX 5411	 A black and white photograph of a watermelon variety ACX 5411. The watermelon is elongated and blocky, resting on a dark surface. A small white label with the number 'ACX 5411' is attached to the top of the watermelon.	Elongated, blocky. Wide, distinct, dark-green stripes on light-green background. 'Allsweet' type. Red Flesh.	Abbott & Cobb, Inc.
ASR 4927037	 A black and white photograph of a watermelon variety ASR 4927037. The watermelon is elongated and oval-shaped, resting on a dark surface. A small white label with the number 'ASR 4927037' is attached to the top of the watermelon.	Elongated, oval. Wide, distinct, dark-green stripe on a medium-green background. 'Allsweet' type. Red flesh.	Asgrow
ASR 4927067	 A black and white photograph of a watermelon variety ASR 4927067. The watermelon is elongated and oval-shaped, resting on a dark surface. A small white label with the number 'ASR 4927067' is attached to the top of the watermelon.	Elongated, oval. Wide, distinct, dark-green stripe on a medium-green background. 'Allsweet' type. Red flesh	Asgrow

ASX 3000		Elongated, blocky. Wide dark-green stripes on a light-green background. 'Allsweet' type. Red flesh.	Agrisales, Inc.
Athens		Elongated, blocky. Wide dark-green stripes on a light-green background. 'Allsweet' type. Red flesh.	Sunseeds
EX 4526607		Elongated, blocky. Wide dark-green stripes on a light-green background. 'Allsweet' type. Red flesh.	Asgrow
Royal Majesty		Elongated, oval. Wide dark-green stripes on a light-green background. 'Allsweet' type. Red flesh.	Petoseed
RWM 8052-VP		Elongated, blocky. Medium-width, dark-green stripes on a light-green background. 'Allsweet' type. Red flesh.	Novartis
RWM 8074		Elongated, oval. Medium-width, dark-green stripes on a light-green background. 'Allsweet' type. Red flesh.	Novartis

RWM 8102	 A black and white photograph of a watermelon with a label that reads 'RWM 8102'. The watermelon has a light green background with wide, dark green stripes.	Elongated, blocky. Wide distinct dark-green stripes on a light-green background. 'Allsweet' type. Red flesh.	Novartis
RWM 8110	 A black and white photograph of a watermelon with a label that reads 'RWM 8110'. The watermelon has a light green background with wide, dark green stripes.	Elongated, blocky. Wide distinct dark-green stripes on a light green background. 'Allsweet' type. Red flesh.	Novartis
Sangria (NVH4262)	 A black and white photograph of a watermelon with a label that reads 'Sangria (NVH4262)'. The watermelon has a light green background with wide, dark green stripes.	Elongated, oval. Wide dark-green stripes on a light-green background. 'Allsweet' type. Red flesh.	Novartis
Stars N Stripes	 A black and white photograph of a watermelon with a label that reads 'Stars N Stripes'. The watermelon has a light green background with medium width dark-green stripes.	Elongated, oval. Medium width dark-green stripes on a light-green background, 'Allsweet' type. Red flesh.	Asgrow
Summer Flavor 800	 A black and white photograph of a watermelon with a label that reads 'Summer Flavor 800'. The watermelon has a light green background with wide, dark green stripes.	Elongated, blocky. Wide distinct dark-green stripes on a light-green background. 'Allsweet' type. Red flesh.	Abbott & Cobb, Inc.
Summer Flavor 900	 A black and white photograph of a watermelon with a label that reads 'Summer Flavor 900'. The watermelon has a light green background with distinct, wide dark-green stripes.	Elongated, oval. Distinct, wide dark-green stripes on a light-green background. 'Allsweet' type. Red flesh.	Abbott & Cobb, Inc.

Summer Flavor 910		Elongated, oval. Distinct, wide, dark-green stripes on a light-green background. 'Allsweet' type. Red flesh.	Abbott & Cobb, Inc.
SWD 8307		Elongated, blocky. Wide dark-green stripes on a light-green background. 'Allsweet' type. Red flesh.	Sakata
W5023		Elongated, blocky. Medium-width dark-green stripes on a light-green background. Stripe is similar to 'Crimson Sweet' in appearance. 'Allsweet' type. Red flesh.	Sunseeds
W5036		Elongated, oval. Wide dark-green stripes on a light-green background. 'Allsweet' type. Red flesh.	Sunseeds
W5040		Blocky. Medium width dark-green stripes on a light-green background. 'Allsweet' type. Red flesh.	Sunseeds
XIT-101		Elongated, blocky. Medium width dark-green striped on a light-green background. 'Allsweet' type. Red flesh.	Sugar Creek

XP4525247		Elongated, oval. Thin light-green stripes on a dark-green background. 'Allsweet' type. Red flesh.	Asgrow
-----------	---	--	--------



June 2000

2000	Julian Date	Maximum Temperature F	Minimum Temperature F	Rainfall Inches	Maximum Soil Temperature	Minimum Soil Temperature
1-Jun	153	87	53	0.00	95	56
2	154	92	66	0.08	102	66
3	155	75	57	0.01	89	64
4	156	73	52	0.00	95	58
5	157	66	57	0.00	85	61
6	158	62	58	0.76	67	58
7	159	75	54	0.00	82	54
8	160	80	59	0.00	91	59
9	161	87	65	0.00	100	62
10	162	91	69	0.00	105	68
11	163	92	72	0.00	108	71
12	164	94	66	0.46	108	74
13	165	67	60	0.00	78	65
14	166	67	61	0.01	73	65
15	167	88	63	0.13	90	66
16	168	87	69	0.27	91	70
17	169	90	72	0.29	100	74
18	170	88	72	0.97	94	73
19	171	75	67	0.01	80	70
20	172	82	59	0.00	96	63
21	173	81	59	0.00	90	62
22	174	83	70	0.41	86	71
23	175	86	68	0.00	91	69
24	176	87	62	0.00	100	66
25	177	89	72	0.00	104	72
26	178	89	73	0.00	105	75
27	179	90	71	0.57	107	76
28	180	75	71	0.20	83	74
29	181	76	64	0.61	87	69
30	182	80	62	0.03	89	65
Average		81	62		91	65
Total				4.81		
YTD						
Average		62	43			
Total				20.13		

Data Collected Midnight- Midnight
[Http://www.rec.udel.edu](http://www.rec.udel.edu)

July 2000

2000	Julian Date	Maximum Temperature F	Minimum Temperature F	Rainfall Inches	Maximum Soil Temperature	Minimum Soil Temperature
1-Jul	183	82	62	0.00	93	66
2	184	85	61	0.00	103	65
3	185	86	67	0.00	102	69
4	186	86	70	0.23	92	73
5	187	84	66	0.00	93	72
6	188	83	63	0.00	101	67
7	189	79	61	0.00	96	70
8	190	79	52	0.00	98	62
9	191	84	57	0.00	97	66
10	192	91	69	0.33	99	76
11	193	76	63	0.00	79	69
12	194	80	60	0.00	90	64
13	195	81	58	0.00	96	66
14	196	79	62	0.04	85	69
15	197	76	64	0.94	82	68
16	198	79	62	0.03	83	67
17	199	84	62	0.00	87	67
18	200	89	67	0.00	89	71
19	201	74	62	0.85	77	66
20	202	77	64	0.81	77	65
21	203	81	61	0.00	85	66
22	204	83	65	0.00	81	71
23	205	79	61	0.00	81	67
24	206	72	65	0.01	73	68
25	207	71	62	0.08	71	65
26	208	79	68	0.71	78	69
27	209	77	68	0.00	78	73
28	210	83	68	0.00	81	71
29	211	82	69	0.21	82	72
30	212	85	72	0.37	85	74
31	213	86	71	0.09	85	74
Average		81	64		87	69
Total				4.70		
YTD						
Average		64	45			
Total				24.83		

Data Collected Midnight- Midnight
[Http://www.rec.udel.edu](http://www.rec.udel.edu)

August 2000

2000	Julian Date	Maximum Temperature F	Minimum Temperature F	Rainfall Inches	Maximum Soil Temperature	Minimum Soil Temperature
1-Aug	214	86	74	0.00	84	75
2	215	86	73	0.00	84	75
3	216	85	72	0.01	83	76
4	217	83	67	2.13	83	70
5	218	80	61	0.00	77	70
6	219	79	61	0.03	77	67
7	220	92	75	0.00	85	75
8	221	89	73	0.00	91	78
9	222	89	73	0.00	89	77
10	223	87	71	0.00	89	76
11	224	86	67	0.89	90	73
12	225	80	65	0.17	80	71
13	226	68	64	1.14	71	66
14	227	73	64	0.12	73	67
15	228	83	60	0.00	82	65
16	229	87	63	0.00	86	71
17	230	78	56	0.00	84	66
18	231	78	66	0.02	78	71
19	232	77	58	0.00	80	66
20	233	73	54	0.00	77	63
21	234	75	51	0.00	80	60
22	235	80	49	0.00	85	61
23	236	80	56	0.00	85	65
24	237	82	65	0.32	85	70
25	238	81	61	0.01	85	70
26	239	83	57	0.00	85	65
27	240	81	66	0.00	79	69
28	241	80	66	0.05	81	70
29	242	81	71	0.09	82	72
30	243	80	71	0.15	81	72
31	244	82	73	0.03	84	74
Average		81	65		82	70
Total				5.16		
YTD						
Average		64	45			
Total				24.83		

Data Collected Midnight- Midnight
[Http://www.rec.udel.edu](http://www.rec.udel.edu)

Cooperative Extension Education in Agriculture and Home Economics, University of Delaware, Delaware State University and the United States Department of Agriculture cooperating. John Nye, Director. Distributed in furtherance of Acts of Congress of May 8 and June 30, 1914. It is the policy of the Delaware Cooperative Extension System that no person shall be subjected to discrimination on the grounds of race, color, sex, handicap, age or national origin.