



Agricultural Weather Series No. 7

June 1970

**LOCAL CLIMATOLOGICAL DATA
AUBURN UNIVERSITY
1969**

UNITED STATES DEPARTMENT OF COMMERCE
ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION
WEATHER BUREAU

in cooperation with

AGRICULTURAL EXPERIMENT STATION
AUBURN UNIVERSITY

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AUBURN, ALABAMA

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FOREWORD

Except for the long term averages of temperature, precipitation, and evaporation, data in this publication were recorded at the Weather Bureau micro-meteorology station located at the south end of the Agronomy Farm at Auburn University. The station was established during September, 1963, with the cooperation of the Auburn University Agricultural Experiment Station and the Agronomy and Soils Department. The current Cooperative Weather Observer is Mr. Jack Jones, foreman of the Agronomy Farm.

Soil temperatures and evaporation readings are for a 24-hour period ending at 8:00 AM for the day indicated. All other readings are for a 24-hour period from midnight to midnight for the indicated date.

The sensing elements for the soil thermometers are under bare soil while all other instruments are exposed over sod.

Evaporation is measured in the Weather Bureau Class "A" pan of 4 foot diameter.

Unless otherwise indicated, units in this publication are as follows:

Temperature in °F
Relative humidity as a percentage
Wind speed in miles per day
Solar radiation in langley (gram calorie/sq. cm.)
Precipitation and evaporation in inches

Cooling degree days are used in computing air conditioning requirements. The "base" for such computations is the mean daily temperature of 75F. These data are obtained by subtracting 75F from the mean daily temperatures, if the latter is above 75F. A day with a mean temperature of 76F is one degree day. If the daily mean temperature continues above 75F for any length of time, air conditioning or cooling will be required for human comfort.

Heating degree days are used in computing fuel requirements. The "base" for computing heating degree days is a mean daily temperature of 65F. A mean daily temperature of 64F is one degree day. If the daily mean temperature continues below 65F for any length of time, heating will be necessary for human comfort.

Sunrise and sunset are considered to occur when the upper edge of the disk of the sun appears to be exactly on the horizon, with normal atmospheric conditions, and at zero elevation above the earth's surface in a level region. Times of sunrise and sunset shown in this publication are valid for the remainder of the 20th century.

Growing degree days were computed daily by averaging the maximum and minimum temperature and then subtracting the "base" temperatures of 40, 45, and 50F.

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Table 1. Daily temperatures, precipitation, solar radiation, evaporation, and miles of wind per day for January, 1969

Date	Air Temperature			Precip.	Solar radiation	Evaporation	Wind m/d 2.5 ft.
	Max.	Min.	Mean				
1	42	23	33	0	301	-	90.6
2	46	25	36	0	159	-	75.0
3	56	35	46	.04	149	-	35.4
4	37	20	29	0	261	.08	73.3
5	43	16	25	0	279	-	113.9
6	52	20	36	0	248	-	22.5
7	53	32	43	0	282	-	65.3
8	64	30	47	0	197	.10	49.0
9	62	33	48	0	32	.05	104.3
10	42	23	33	0	276	-	98.6
11	48	28	38	0	193	-	110.5
12	49	25	37	0	270	.15	82.8
13	55	28	42	0	286	.04	47.9
14	57	31	44	0	300	.10	53.5
15	54	34	44	0	174	.08	46.1
16	61	36	49	0	248	.12	53.5
17	56	46	51	.04	97	.08	71.3
18	64	52	58	.15	96	.06	81.2
19	62	53	58	2.21	20	-	62.5
20	49	48	49	.03	36	-	81.6
21	49	44	47	0	50	.03	56.4
22	50	43	47	.17	42	.02	28.6
23	61	47	54	.02	101	-	74.4
24	64	37	52	0	223	.04	77.6
25	51	32	42	0	242	.20	98.9
26	55	28	42	0	226	.11	105.2
27	53	43	48	0	136	.06	36.5
28	45	37	41	.16	63	.07	109.3
29	53	43	48	0	77	.02	97.6
30	72	49	61	.02	289	.01	75.5
31	67	58	63	.10	68	.08	59.0
Total	1672	1099	1391	2.94	5,421	*1.76	2237.8
Avg.	53.9	35.5	44.9				72.2

* Evap. adjusted for full month

- Missing data

Table 2. Daily temperatures, precipitation, solar radiation, evaporation, and miles of wind per day for February, 1969

Date	Air Temperature			Precip.	Solar radiation	Evaporation	Wind m/d 2.5 ft.
	Max.	Min.	Mean				
1	74	55	65	.02	151	.03	41.4
2	70	59	65	.15	51	.07	82.1
3	50	42	46	.56	236	.13	90.7
4	54	27	41	0	377	.13	101.5
5	59	31	45	0	343	.12	46.6
6	54	42	48	1.18	23	.14	46.1
7	69	41	55	0	313	-	40.9
8	62	46	54	.33	50	.12	40.2
9	51	33	42	0	301	.11	118.4
10	55	28	42	0	325	.11	86.7
11	57	39	48	0	311	.07	27.8
12	58	33	46	0	484	.08	41.2
13	53	26	40	0	406	.22	104.6
14	44	34	39	1.00	59	.16	97.5
15	37	32	35	.84	28	.02	128.9
16	36	31	34	.08	62	-	114.6
17	40	36	38	0	90	.05	52.4
18	44	31	38	0	188	.05	75.3
19	57	29	43	0	413	.05	82.4
20	59	34	47	0	386	.14	77.4
21	60	36	48	0	370	.11	42.6
22	46	39	43	.35	-	.16	88.1
23	49	38	44	0	110	.02	70.4
24	58	34	46	0	405	.04	33.1
25	60	33	47	0	428	.12	68.1
26	60	33	47	0	425	.15	68.7
27	66	37	52	0	408	.14	66.2
28	55	36	46	.10	106	.16	36.9
Total	1537	1015	1284	4.61		*2.71	1970.8
Avg.	54.9	36.3	45.9				70.4

* Evap. adjusted for full month

- Missing data

Table 3. Daily temperatures, precipitation, solar radiation, evaporation, and miles of wind per day for March, 1969.

Date	Air Temperature			Precip.	Solar radiation	Evaporation	Wind m/d 2.5 ft.
	Max.	Min.	Mean				
1	52	31	42	0	385	.06	54.7
2	59	31	45	0	486	.12	75.8
3	46	38	42	.16	190	.14	69.7
4	54	34	44	0	436	.02	39.6
5	55	32	44	0	350	.19	99.3
6	44	39	42	.90	32	.14	63.3
7	57	35	46	0	464	.09	119.0
8	69	37	53	.11	406	.12	33.9
9	49	30	40	0	263	.18	110.8
10	51	26	39	0	504	.12	108.7
11	48	23	36	0	512	.20	133.6
12	49	26	38	0	314	.12	72.1
13	55	28	42	0	498	.09	47.5
14	60	30	45	0	418	.19	67.9
15	58	41	50	0	221	.30	68.6
16	52	43	48	.02	-	.03	62.5
17	58	46	52	.84	72	.01	60.8
18	61	51	56	.46	130	.05	79.1
19	73	44	59	0	505	.07	97.6
20	76	44	60	0	-	.18	35.3
21	71	46	59	0	492	.30	85.1
22	70	43	57	0	524	.28	79.2
23	62	50	56	2.47	107	.25	60.9
24	80	53	67	0	589	-	112.4
25	52	38	45	0	237	.40	174.1
26	55	32	44	0	528	.10	79.9
27	59	28	44	0	475	.24	102.3
28	69	34	52	0	567	.16	49.3
29	73	43	58	0	577	.22	54.3
30	67	47	57	0	427	.22	54.1
31	69	39	54	0	481	.25	98.4
Total	1853	1162	1516	4.96		*4.92	2449.8
Avg.	59.8	37.5	48.9				79.0

* Evap. adjusted for full month

- Missing data

Table 4. Daily temperatures, precipitation, solar radiation, evaporation, and miles of wind per day for April, 1969

Date	Air Temperature			Precip.	Solar radiation	Evaporation	Wind m/d 2.5 ft.
	Max.	Min.	Mean				
1	79	46	63	0	520	.23	65.9
2	81	49	65	0	554	.18	36.3
3	84	56	70	0	491	.27	49.3
4	84	54	69	0	493	.23	34.0
5	69	63	66	.85	56	.27	67.7
6	73	60	67	.24	311	.11	69.5
7	75	51	63	0	590	.13	63.7
8	78	50	64	0	557	.30	68.1
9	80	56	68	0	436	.26	59.0
10	67	58	63	.25	108	.22	61.1
11	77	56	67	0	351	.02	32.6
12	83	55	69	0	452	.20	63.3
13	72	59	66	0	229	.20	86.6
14	66	59	63	.34	43	.18	106.9
15	80	64	72	.94	275	.06	70.4
16	77	63	70	0	268	.10	49.9
17	79	63	71	.33	267	.11	17.3
18	79	54	67	2.26	455	-	77.1
19	62	52	57	0	203	.36	118.3
20	73	46	60	0	615	.11	80.1
21	75	49	62	0	611	.18	40.0
22	78	51	65	0	598	.26	39.0
23	75	46	61	0	541	.31	65.4
24	71	43	57	0	628	.31	90.3
25	75	46	61	0	635	.26	69.8
26	80	45	63	0	631	.24	24.8
27	81	50	66	0	617	.24	42.8
28	79	57	68	0	393	.33	55.1
29	73	50	62	.36	636	.25	69.2
30	76	45	61	0	648	.36	78.1
Total	2281	1596	1946	5.57	13,212	*6.30	1851.6
Avg.	76.0	53.2	64.9				61.7

* Evap. adjusted for full month

- Missing data

Table 6. Daily temperatures, precipitation, solar radiation, evaporation, and miles of wind per day for June, 1969

Date	Air Temperature			Precip.	Solar radiation	Evaporation	Wind m/d 2.5 ft.
	Max.	Min.	Mean				
1	90	66	78	.11	479	.31	27.2
2	85	64	75	0	539	.24	30.0
3	80	58	69	0	684	.30	74.3
4	77	59	68	0	428	.38	78.4
5	76	63	70	0	313	.26	88.2
6	86	61	74	.02	577	.12	63.9
7	91	62	77	0	581	.16	41.0
8	92	67	80	0	596	.25	19.8
9	94	66	80	0	597	.38	26.9
10	91	66	79	.37	435	.33	30.6
11	87	65	76	0	587	.28	53.1
12	87	68	78	0	454	.27	55.0
13	89	70	80	0	557	.24	51.7
14	90	70	80	0	445	.29	48.9
15	89	69	79	1.08	528	.33	36.0
16	84	65	75	0	593	.28	61.4
17	87	62	75	0	666	.29	78.7
18	88	62	75	0	638	.26	26.7
19	90	65	78	.97	534	.32	45.9
20	85	64	75	1.69	437	-	64.1
21	87	63	75	0	605	-	66.2
22	91	67	79	0	618	.26	28.1
23	91	72	82	0	524	.29	29.1
24	92	74	83	0	511	.26	38.4
25	91	74	83	0	557	.28	36.1
26	92	73	83	0	615	.29	36.3
27	95	73	84	0	591	.32	27.0
28	98	74	86	0	570	.32	24.5
29	97	71	84	0	636	.31	33.2
30	93	69	81	0	599	.40	39.7
Total	2665	2002	2341	4.24	16494	*8.35	1360.4
Avg.	88.8	66.7	73.7				45.3

* Evap. adjusted for full month
 - Missing data

Table 7. Daily temperatures, precipitation, solar radiation, evaporation, and miles of wind per day for July, 1969

Date	Air Temperature			Precip.	Solar radiation	Evaporation	Wind m/d 2.5 ft.
	Max.	Min.	Mean				
1	95	70	83	0	533	.27	25.4
2	94	72	83	0	592	.29	42.4
3	95	72	83	0	618	.32	37.6
4	95	72	84	0	607	.34	32.0
5	95	72	84	0	589	.36	29.6
6	95	72	84	0	559	.33	35.1
7	96	75	86	0	612	.27	25.2
8	96	74	85	0	426	.31	49.5
9	95	73	84	1.10	339	.39	43.7
10	93	72	83	.05	423	.32	48.7
11	91	73	82	0	570	.18	19.1
12	80	72	76	.70	143	.30	55.4
13	92	69	81	1.00	531	.13	43.9
14	91	68	80	0	483	.29	45.3
15	90	72	81	.14	582	.20	24.5
16	88	71	80	.04	454	.20	56.3
17	84	70	77	.23	333	.08	74.5
18	88	66	77	0	504	.16	49.0
19	90	69	80	.68	604	.31	30.4
20	90	68	79	0	576	.08	33.6
21	90	69	80	0	553	.22	27.0
22	88	71	80	.08	451	.23	33.6
23	89	71	80	0	557	.13	59.9
24	88	71	80	.25	460	.30	70.4
25	88	72	80	0	469	.26	36.5
26	87	71	79	.30	377	.22	33.9
27	86	72	79	.06	287	.22	44.0
28	82	70	76	0	240	.09	33.8
29	86	67	77	0	559	.09	29.2
30	88	68	78	.08	353	.21	28.1
31	88	68	78	0	476	.20	29.0
Total	2793	2191	2499	4.71	14860	7.30	1226.6
Avg.	90.0	70.7	80.6				

Table 8. Daily temperatures, precipitation, solar radiation, evaporation, and miles of wind per day for August, 1969

Date	Air Temperature			Precip.	Solar radiation	Evaporation	Wind m/d 2.5 ft.
	Max.	Min.	Mean				
1	90	70	80	0	491	.22	31.6
2	87	69	78	.70	403	.22	37.1
3	80	67	74	.40	308	-	44.6
4	81	64	73	.01	403	.03	28.6
5	82	65	74	.01	479	.10	29.9
6	87	65	76	0	535	.14	13.0
7	89	66	78	0	522	.23	30.5
8	90	70	80	0	517	.29	15.9
9	90	71	81	0	497	.26	24.5
10	82	74	78	0	169	.14	47.3
11	87	67	77	0	597	.16	33.4
12	85	67	76	.17	429	.31	50.0
13	82	67	75	.28	388	.20	50.8
14	83	65	74	.03	452	.19	52.4
15	79	70	75	.10	156	.18	41.6
16	84	72	78	0	365	.07	40.9
17	88	73	81	.04	450	.13	33.2
18	81	72	77	.36	152	.19	65.8
19	89	74	82	0	440	.06	68.0
20	91	75	83	0	378	.22	66.1
21	90	71	81	.17	278	.15	27.2
22	85	62	74	.51	253	.17	47.2
23	72	63	68	.39	128	.24	82.0
24	83	63	73	0	581	.08	74.2
25	84	61	73	0	582	.22	50.6
26	88	61	75	0	556	.23	27.4
27	92	62	67	0	526	.26	20.0
28	85	70	68	0	461	.24	57.4
29	85	64	75	0	552	.25	49.0
30	84	63	69	.09	429	.31	69.4
31	82	68	75	.37	297	.19	88.5
Total	2637	2091	2348	3.63	12768	*5.74	1398.1
Avg.	85.0	67.4	75.4				

* Evap. adjusted for full month

- Missing data

Table 9. Daily temperatures, precipitation, solar radiation, evaporation, and miles of wind per day for September 1969

Date	Air Temperature			Precip.	Solar radiation	Evaporation	Wind m/d 2.5 ft.
	Max.	Min.	Mean				
1	87	67	77	0	515	.31	51.3
2	86	68	77	0	458	.22	29.5
3	86	68	77	0	422	.23	23.0
4	87	68	78	0	407	.17	39.2
5	89	68	79	0	460	.17	21.3
6	86	70	73	.82	213	.25	40.6
7	88	68	78	0	379	.13	45.5
8	87	69	78	.22	364	.11	11.4
9	84	66	75	0	497	.18	28.4
10	76	53	65	0	454	.30	75.1
11	74	56	65	0	335	.20	68.0
12	80	57	69	0	430	.12	20.9
13	81	56	69	0	444	.20	19.8
14	82	57	70	0	479	.16	22.1
15	85	63	74	0	440	.20	39.5
16	85	66	76	0	246	.20	57.8
17	87	68	77	0	412	.07	43.3
18	92	67	80	0	428	.19	18.4
19	80	63	72	.33	157	.21	26.2
20	71	62	72	0	144	.10	79.2
21	64	62	63	4.27	31	.09	17.8
22	68	62	65	.83	102	-	113.0
23	76	64	70	.03	156	.04	70.2
24	75	64	70	0	186	.03	22.3
25	81	61	71	0	421	.09	32.4
26	80	56	68	0	461	.20	35.9
27	85	60	73	0	468	.22	46.3
28	84	60	72	0	434	.30	23.8
29	78	60	69	0	426	.15	86.7
30	69	57	62	.03	204	.22	68.7
Total	2439	1886	2099	6.53	10573	*5.07	1280.8
Avg.	81.3	62.8	69.9				

* Evap. adjusted for full month

Table 10. Daily temperatures, precipitation, solar radiation, evaporation, and miles of wind per day for October, 1969

Date	Air Temperature			Precip.	Solar radiation	Evaporation	Wind m/d 2.5 ft.
	Max.	Min.	Mean				
1	76	57	67	.34	94	.10	104.9
2	70	55	68	0	146	.02	86.1
3	84	54	69	0	422	.07	17.4
4	82	62	72	0	416	.15	24.4
5	84	60	72	0	415	.16	41.1
6	78	58	68	0	331	.23	80.9
7	81	60	71	0	281	.14	50.1
8	75	62	69	.04	219	.10	48.4
9	81	57	69	0	388	.08	61.5
10	81	58	70	0	347	.14	48.4
11	83	61	72	0	357	.17	41.7
12	84	63	74	0	338	.13	31.3
13	84	59	72	0	253	.15	13.9
14	68	53	61	0	405	.15	25.7
15	75	51	63	0	396	.15	71.2
16	76	53	70	0	398	.06	27.0
17	70	50	60	0	240	.17	37.6
18	75	45	60	0	183	.23	81.9
19	80	57	69	0	387	.11	50.7
20	84	69	77	0	229	.07	44.2
21	78	60	69	.22	205	.13	33.5
22	77	52	65	0	406	.18	51.3
23	67	44	56	0	401	.20	91.4
24	63	43	52	0	277	.23	92.6
25	69	52	61	0	173	.14	83.0
26	78	53	66	0	337	.08	48.4
27	78	57	68	0	324	.11	41.4
28	70	47	59	0	361	.17	76.5
29	63	46	55	0	367	.23	87.3
30	67	42	55	0	326	.17	75.0
31	72	52	62	0	256	.13	81.1
Total	2353	1692	2041	.60	9678	4.35	1749.9
Avg.	75.9	54.6	65.8				

Table 11. Daily temperatures, precipitation, solar radiation, evaporation, and miles of wind per day for November, 1969

Date	Air Temperature			Precip.	Solar radiation	Evaporation	Wind m/d 2.5 ft.
	Max.	Min.	Mean				
1	70	59	65	.07	140	.12	71.5
2	70	44	57	0	278	.04	43.3
3	65	39	52	0	300	.12	85.0
4	60	36	48	0	282	.12	43.4
5	60	32	46	0	354	.11	42.5
6	69	34	52	0	348	.09	41.3
7	75	45	60	0	358	.12	29.8
8	75	57	66	0	354	.15	32.8
9	75	43	59	0	371	.17	41.5
10	72	43	58	0	289	.13	45.4
11	75	41	58	0	338	.14	38.0
12	71	47	59	.15	240	.11	40.7
13	53	40	47	0	117	.15	48.0
14	43	37	40	0	297	.01	36.9
15	52	18	35	0	327	.16	83.0
16	62	25	44	0	325	.08	38.5
17	68	40	54	0	238	.05	36.0
18	74	53	64	0	206	.09	71.9
19	63	27	45	.26	168	.19	100.4
20	57	23	40	0	327	.05	71.0
21	66	33	50	0	308	.09	39.1
22	68	31	50	0	308	.11	23.7
23	70	43	57	0	165	.10	19.8
24	75	46	61	0	286	.03	11.8
25	71	51	61	.14	152	.10	26.6
26	68	44	56	0	254	.07	33.1
27	65	43	54	0	164	.11	21.5
28	64	37	51	0	255	.07	49.7
29	58	33	47	0	292	.12	66.9
30	54	28	41	0	303	.11	50.4
Total	1967	1174	1577	.62	8144	3.11	1383.5
Avg.	65.5	39.1	52.5				

Table 12. Daily temperatures, precipitation, solar radiation, evaporation, and miles of wind per day for December, 1969

Date	Air Temperature			Precip.	Solar radiation	Evaporation	Wind m/d 2.5 ft.
	Max.	Min.	Mean				
1	63	32	48	0	202	.11	50.4
2	59	32	46	0	297	.14	61.3
3	61	32	47	0	285	.13	35.4
4	51	29	40	0	298	.16	67.0
5	48	29	39	.04	202	.17	88.4
6	56	35	46	.74	22	.06	69.0
7	55	37	46	.31	69	0	131.7
8	43	40	42	0	27	.04	55.1
9	48	33	41	0	134	.02	32.8
10	48	42	45	.64	52	.06	79.8
11	58	40	49	0	237	.02	67.6
12	51	29	40	0	272	.13	74.7
13	58	26	42	0	279	.12	50.5
14	64	37	51	0	268	.08	57.1
15	60	31	46	0	274	.13	60.0
16	55	30	43	0	272	.14	67.6
17	60	28	44	0	271	.07	32.3
18	59	31	45	0	200	.10	27.7
19	61	36	49	0	172	.05	29.9
20	55	29	42	0	276	.11	66.5
21	46	36	41	1.22	15	.02	76.2
22	38	30	34	0	54	-	96.3
23	53	28	41	0	58	.01	61.8
24	53	29	41	0	274	.03	42.4
25	47	35	41	.51	20	.05	66.8
26	50	29	40	0	282	-	114.1
27	57	28	43	0	290	.08	62.4
28	66	34	50	0	250	.07	21.9
29	69	46	58	0	140	.12	43.8
30	74	40	57	.65	40	.04	123.8
31	40	36	38	0	48	-	135.5
Total	1706	1029	1377	4.11	5580	*2.26	2049.8
Avg.	55.0	33.2	44.4				

* Evap. adjusted for full month

- Missing data

Table 13. Monthly Averages for Temperature and Precipitation from 1855-1952

Date	Temperature			Precipitation Average (Inches)	Evaporation Average (Inches)
	Avg. Daily Max.	Avg. Daily Min.	Average (°F)		
January	59.0	38.9	49.0	4.80	1.89
February	61.6	40.5	51.5	5.25	2.38
March	67.8	45.7	56.8	6.13	4.46
April	75.4	52.8	64.1	4.37	5.93
May	83.3	60.4	71.9	3.55	7.48
June	89.5	67.7	78.6	4.06	7.76
July	90.0	69.9	80.0	5.34	7.07
August	89.7	69.4	79.6	4.71	6.53
September	86.7	65.4	76.1	3.20	5.58
October	77.9	54.7	66.3	2.58	4.41
November	66.7	44.3	55.5	3.48	3.00
December	58.9	39.3	49.1	5.13	2.22
Year	75.5	54.1	64.8	52.60	58.71

Evaporation based on data from 1947 through 1950 and 1969

Table 14. Six Hourly Temperature and Relative Humidity, January 1969

Date	Midnight		6:00 AM		Noon		6:00 PM		Average	
	Temp.	R.H.	Temp.	R.H.	Temp.	R.H.	Temp.	R.H.	Temp.	R.H.
1	31	81	24	45	37	28	33	26	31.3	45.0
2	28	43	25	51	41	30	39	34	33.3	39.5
3	36	82	35	97	51	51	48	71	42.5	75.3
4	39	97	28	93	35	30	27	30	32.3	62.5
5	20	49	17	62	39	33	29	53	26.3	49.3
6	24	66	21	68	43	45	45	37	33.3	54.0
7	39	65	33	100	51	25	43	22	41.5	53.0
8	31	61	33	47	59	46	59	69	45.5	55.8
9	58	96	59	100	61	98	43	79	55.3	93.3
10	33	57	24	59	40	28	33	31	32.5	43.8
11	31	41	31	43	43	32	39	31	36.0	36.8
12	29	38	26	45	47	25	36	39	34.5	36.8
13	35	40	29	51	53	21	43	33	40.0	36.3
14	35	42	32	46	53	29	41	48	40.3	41.3
15	42	45	35	56	52	29	41	51	42.5	45.3
16	40	41	35	48	56	41	55	57	46.5	46.8
17	51	57	46	94	53	93	55	85	51.3	82.3
18	55	80	52	95	63	69	57	100	56.8	86.0
19	55	100	57	100	61	100	59	100	58.0	100.0
20	53	100	49	100	48	100	48	100	49.5	100.0
21	47	100	45	100	48	100	48	97	47.0	99.3
22	45	100	43	100	47	100	47	100	45.5	100.0
23	48	100	49	100	55	97	57	100	52.3	99.3
24	60	100	60	100	62	59	51	71	58.3	82.5
25	37	72	35	68	47	31	41	29	40.0	50.0
26	32	48	31	57	55	27	47	48	41.3	45.0
27	47	43	45	76	50	70	44	80	46.5	67.3
28	40	91	37	100	43	100	42	100	40.5	97.8
29	45	100	43	100	48	100	51	100	46.8	100.0
30	50	100	49	100	67	59	64	67	57.5	81.5
31	57	100	57	100	62	100	63	92	59.8	97.5
Avg.	41.1	72.1	38.2	77.5	50.6	57.9	46.1	63.9		

Table 15. Six Hourly Temperature and Relative Humidity, February 1969

Date	Midnight		6:00 AM		Noon		6:00 PM		Average	
	Temp.	R.H.	Temp.	R.H.	Temp.	R.H.	Temp.	R.H.	Temp.	R.H.
1	57	100	57	100	70	71	65	79	62.3	87.5
2	59	100	61	100	69	80	63	100	63.0	95.0
3	61	100	48	78	47	39	41	29	49.3	61.5
4	32	54	27	78	49	28	43	35	37.8	48.8
5	34	58	32	69	58	25	49	51	43.3	50.8
6	45	55	42	100	47	100	53	100	46.8	88.8
7	52	100	43	100	67	45	58	76	55.0	80.3
8	52	87	49	100	59	100	55	100	53.8	96.8
9	47	65	43	67	49	50	43	57	45.5	59.8
10	33	85	29	95	51	32	46	54	39.8	66.5
11	39	85	40	73	51	58	49	56	44.8	68.0
12	42	76	35	100	57	25	43	26	44.3	56.8
13	30	57	25	71	48	27	43	29	36.5	46.0
14	38	35	36	37	39	55	34	100	36.8	56.8
15	35	100	35	100	35	100	33	100	34.5	100.0
16	32	100	32	100	35	95	35	97	33.5	98.0
17	35	97	37	98	39	83	37	82	37.0	90.0
18	35	85	34	88	37	72	37	60	35.8	76.3
19	31	87	29	94	52	34	46	35	39.5	62.5
20	37	54	35	57	56	27	45	58	43.3	49.0
21	40	79	36	73	56	27	49	36	45.3	53.8
22	46	52	39	100	41	100	39	100	41.3	88.0
23	39	100	39	100	44	84	45	77	41.8	90.3
24	41	81	34	100	53	43	48	46	44.0	67.5
25	37	83	33	100	55	38	49	44	43.5	66.3
26	37	86	32	85	55	47	50	44	43.5	65.5
27	41	65	37	64	61	35	52	57	47.8	55.3
28	47	65	41	81	51	95	51	100	47.5	85.3
Avg.	41.2	78.3	37.9	86.0	51.1	57.7	46.5	65.3		

Table 16. Six Hourly Temperature and Relative Humidity, March 1969

Date	Midnight		6:00 AM		Noon		6:00 PM		Average	
	Temp.	R.H.	Temp.	R.H.	Temp.	R.H.	Temp.	R.H.	Temp.	R.H.
1	35	78	32	100	47	47	41	57	38.8	70.5
2	33	94	34	100	56	35	46	57	42.3	71.5
3	39	61	39	73	45	63	40	100	40.8	74.3
4	39	100	36	100	50	31	43	29	42.0	65.0
5	35	45	33	55	50	28	47	30	41.3	39.5
6	43	41	43	59	39	100	42	100	41.8	75.0
7	39	83	35	84	52	37	47	51	43.3	63.8
8	42	67	41	80	64	43	57	86	51.0	69.0
9	49	84	40	79	41	59	35	66	41.3	71.8
10	30	79	28	80	46	31	42	30	36.5	55.0
11	28	55	23	73	42	33	40	29	33.3	47.5
12	30	61	28	65	46	27	41	35	36.3	47.0
13	30	82	28	73	50	31	46	35	38.5	55.3
14	34	67	30	84	57	23	51	29	43.0	50.8
15	46	38	43	47	55	34	51	40	48.8	39.8
16	48	44	44	70	50	69	49	97	47.8	70.0
17	47	100	47	100	56	79	53	100	50.8	94.8
18	53	100	55	100	56	100	54	74	54.5	93.5
19	51	91	44	100	69	26	61	33	56.3	62.5
20	46	84	45	100	71	37	67	36	57.3	64.3
21	56	61	51	83	69	25	59	25	58.8	48.5
22	46	40	45	43	67	20	55	39	53.3	35.5
23	53	33	51	43	59	42	53	100	54.0	54.5
24	59	100	55	89	75	37	74	26	65.8	63.0
25	52	55	45	77	49	60	45	62	47.8	63.5
26	38	81	33	98	52	29	46	32	42.3	60.0
27	35	63	31	100	54	29	51	51	42.8	60.8
28	41	81	39	100	66	22	59	30	51.3	58.3
29	49	80	50	100	70	27	64	30	58.3	59.3
30	50	87	53	89	65	58	57	56	56.3	72.5
31	46	53	41	53	64	25	62	30	53.3	40.3
Avg.	42.6	70.6	40.1	80.5	55.9	42.2	50.9	51.5		

Table 17. Six Hourly Temperature and Relative Humidity, April 1969

Date	Midnight		6.00 AM		Noon		6:00 PM		Average	
	Temp.	R.H.	Temp.	R.H.	Temp.	R.H.	Temp.	R.H.	Temp.	R.H.
1	50	41	48	40	74	29	71	40	60.8	37.5
2	56	89	51	96	78	32	72	33	64.3	62.5
3	60	67	58	99	81	33	75	37	68.5	59.0
4	63	71	58	100	80	35	74	45	68.8	62.8
5	66	89	65	100	67	100	64	100	65.5	97.3
6	61	100	61	100	69	74	72	59	65.8	83.3
7	62	68	52	77	69	30	68	31	62.8	51.5
8	58	46	51	88	73	39	71	43	63.3	54.0
9	62	65	57	100	75	50	72	45	66.5	65.0
10	63	89	60	97	63	100	63	100	62.3	96.5
11	59	100	60	100	75	70	69	84	65.8	88.5
12	61	67	57	60	81	34	73	53	68.0	53.5
13	65	97	59	97	69	57	69	48	65.5	74.8
14	62	68	62	93	64	100	64	100	63.0	90.3
15	65	100	65	100	73	81	74	73	69.3	88.5
16	66	100	65	100	75	63	70	87	69.0	87.5
17	63	100	65	100	78	53	67	100	68.3	88.3
18	66	100	69	100	77	50	71	45	70.8	73.8
19	54	87	57	90	60	69	55	71	56.5	79.3
20	47	93	49	70	67	41	71	32	58.5	59.0
21	51	100	49	95	71	37	70	42	60.3	68.5
22	59	66	54	89	75	29	70	27	64.5	52.8
23	51	58	52	77	73	26	65	32	60.3	48.3
24	49	65	46	84	67	31	63	36	56.3	54.0
25	51	75	50	77	72	29	65	41	59.5	55.5
26	48	95	57	70	77	29	69	41	62.8	58.8
27	57	82	53	93	77	36	77	36	66.0	61.8
28	63	72	59	98	77	56	73	70	68.0	74.0
29	61	100	57	81	73	37	65	37	64.0	63.8
30	51	63	49	78	73	29	66	45	59.8	53.8
Avg.	58.3	80.4	56.5	88.3	72.8	49.3	68.9	54.4		

Table 18. Six Hourly Temperature and Relative Humidity, May 1969

Date	Midnight		6:00 AM		Noon		6:00 PM		Average	
	Temp.	R.H.	Temp.	R.H.	Temp.	R.H.	Temp.	R.H.	Temp.	R.H.
1	58	51	60	100	71	55	66	60	63.8	66.5
2	61	65	60	73	75	36	67	45	65.8	54.8
3	61	77	59	100	73	59	63	100	64.0	84.0
4	60	92	65	95	76	49	68	69	67.3	76.3
5	61	77	66	79	80	36	77	40	71.0	58.0
6	63	85	63	92	81	35	76	47	70.8	64.8
7	65	76	64	96	77	63	78	61	71.0	74.0
8	69	95	69	98	81	55	69	100	72.0	87.0
9	67	100	66	96	70	37	64	38	66.8	67.8
10	51	84	57	74	73	27	70	27	62.8	53.0
11	59	70	57	59	68	30	63	41	61.8	50.0
12	49	100	59	81	79	28	74	34	65.3	60.8
13	55	91	60	89	81	28	75	45	67.8	63.3
14	66	55	63	85	64	95	63	100	64.0	83.8
15	60	100	62	100	67	95	64	100	63.3	98.8
16	63	100	65	100	78	64	69	99	68.8	90.8
17	65	100	67	98	73	82	71	100	69.0	95.0
18	69	100	69	100	67	100	67	100	68.0	100.0
19	65	100	67	93	80	62	75	85	71.8	85.0
20	66	100	68	100	81	67	76	88	72.8	88.8
21	69	94	69	81	87	43	78	82	75.8	75.0
22	72	79	74	85	89	50	77	84	78.0	74.5
23	69	100	75	70	89	43	74	89	76.8	75.5
24	68	100	75	79	80	55	69	99	73.0	83.3
25	65	100	72	80	83	47	73	72	73.3	74.8
26	65	100	67	99	83	45	78	81	73.3	81.3
27	68	100	66	100	81	55	73	90	72.0	86.3
28	67	100	67	99	80	48	77	55	72.8	75.5
29	64	100	67	95	86	41	81	55	74.5	72.8
30	70	85	71	80	87	40	81	58	77.3	65.8
31	70	91	75	71	89	35	83	46	79.3	60.8
Avg.	63.9	89.3	65.9	88.6	78.4	51.8	72.2	70.6		

Table 19 Six Hourly Temperature and Relative Humidity, May 1969

Date	Midnight		6:00 AM		Noon		6:00 PM		Average	
	Temp.	R.H.	Temp.	R.H.	Temp.	R.H.	Temp.	R.H.	Temp.	R.H.
1	69	100	77	72	90	38	71	91	76.8	75.3
2	67	100	71	97	84	48	75	65	74.3	77.5
3	63	92	60	81	77	29	76	25	69.0	56.8
4	63	49	62	53	75	35	72	49	68.0	46.5
5	69	55	64	79	69	96	73	70	68.8	75.0
6	65	100	67	97	85	41	81	51	74.5	72.3
7	65	100	73	77	89	39	85	48	78.0	66.0
8	71	97	76	71	93	35	84	49	81.0	63.0
9	71	91	76	75	91	31	85	55	80.8	63.0
10	72	86	72	96	89	45	69	100	75.5	81.8
11	66	100	68	100	85	55	79	73	74.5	82.0
12	71	99	73	100	85	53	82	60	77.8	78.0
13	73	99	74	99	87	47	83	60	79.3	76.3
14	74	94	74	100	87	54	83	64	79.5	78.0
15	75	96	76	100	89	60	81	91	80.3	86.8
16	70	100	69	91	82	64	79	64	75.0	79.8
17	65	99	65	93	83	45	82	51	73.8	72.0
18	65	100	70	88	85	38	81	45	75.3	67.8
19	70	79	72	99	89	47	82	67	78.3	73.0
20	65	100	66	100	82	73	67	100	70.0	93.3
21	65	100	70	100	95	60	80	75	77.5	83.8
22	70	100	77	75	89	53	84	73	80.0	75.3
23	75	92	79	100	89	59	87	76	82.5	81.8
24	76	100	77	100	89	56	88	71	82.5	81.8
25	77	93	77	100	88	53	84	75	81.5	80.3
26	77	93	77	99	90	43	85	77	82.3	78.0
27	77	93	79	87	93	48	86	77	83.8	78.8
28	76	100	85	67	95	40	85	79	85.3	71.5
29	76	100	83	78	95	42	80	49	83.5	67.3
30	71	97	77	82	90	45	88	55	81.5	74.7
Avg.	70.3	93.5	72.9	88.5	86.9	49.0	80.6	66.1		

Table 20. Six Hourly Temperature and Relative Humidity, July, 1969

Date	Midnight		6:00 AM		Noon		6:00 PM		Average	
	Temp.	R.H.	Temp.	R.H.	Temp.	R.H.	Temp.	R.H.	Temp.	R.H.
1	75	95	74	89	92	41	79	76	80.0	75.3
2	75	98	77	88	92	41	88	51	83.0	69.5
3	74	94	74	100	93	41	89	49	82.5	71.0
4	75	100	78	96	92	45	87	52	83.0	73.3
5	75	100	80	91	92	42	86	60	83.3	73.3
6	74	98	81	80	92	44	88	57	83.8	69.8
7	76	99	82	86	93	45	86	61	84.3	69.8
8	76	98	79	90	95	42	82	82	83.0	78.0
9	75	100	76	98	94	46	76	100	80.3	86.0
10	74	100	77	100	91	58	78	100	80.0	89.5
11	75	100	78	100	90	59	79	97	80.5	89.0
12	76	100	79	99	80	99	76	100	77.8	99.5
13	72	100	74	97	91	64	70	100	76.8	90.3
14	70	100	70	100	90	61	84	88	78.5	87.3
15	77	94	74	100	88	59	84	65	80.8	79.5
16	72	100	74	99	85	64	74	98	76.3	90.3
17	72	100	74	92	83	60	76	66	76.3	79.5
18	69	100	72	99	85	62	77	100	75.8	90.3
19	71	100	72	100	87	56	88	52	79.5	77.0
20	70	100	72	99	88	57	80	80	77.5	84.0
21	72	100	71	100	84	64	81	76	77.0	85.0
22	72	100	72	100	86	63	74	100	76.0	90.8
23	71	100	73	100	86	58	80	71	77.5	82.3
24	72	100	73	100	86	60	76	100	76.8	90.0
25	74	100	76	100	86	73	76	99	78.0	93.0
26	73	100	76	100	76	100	77	99	75.5	99.8
27	73	100	78	98	84	76	74	100	77.3	93.5
28	72	100	72	100	80	72	75	94	74.8	91.5
29	68	100	70	100	85	49	82	62	76.3	77.8
30	69	100	69	88	78	70	76	90	73.0	87.0
31	69	100	72	98	83	65	73	87	74.3	87.5
Avg.	72.8	99.2	74.8	96.3	87.3	59.2	79.7	81.0		

Table 21. Six Hourly Temperature and Relative Humidity, August 1969

Date	Midnight		6:00 AM		Noon		6:00 PM		Average	
	Temp.	R.H.	Temp.	R.H.	Temp.	R.H.	Temp.	R.H.	Temp.	R.H.
1	69	100	70	100	86	59	78	76	75.8	83.8
2	70	100	73	99	81	78	73	96	74.3	93.3
3	66	100	67	100	76	88	73	98	70.5	96.5
4	70	100	69	100	81	61	75	86	73.8	86.8
5	67	100	63	100	75	72	79	65	71.0	84.3
6	66	100	64	100	83	55	82	56	73.8	77.8
7	69	100	66	100	84	56	83	54	75.5	77.5
8	69	100	70	100	86	52	85	52	77.5	76.0
9	71	100	71	100	84	64	84	62	77.5	81.5
10	73	100	73	100	80	90	74	98	75.0	97.0
11	70	100	67	90	85	36	79	54	75.3	70.0
12	70	77	67	97	81	48	75	94	73.3	79.0
13	67	93	68	100	80	63	63	86	69.5	85.5
14	65	100	69	100	82	59	75	96	72.8	88.8
15	70	100	72	100	73	100	73	100	72.0	100.0
16	72	100	73	100	73	74	76	100	73.5	93.5
17	73	100	74	97	76	54	83	69	76.5	80.0
18	74	100	72	100	77	91	73	100	74.0	97.8
19	74	100	74	100	85	65	82	86	78.8	87.8
20	74	100	74	100	88	61	79	93	78.8	88.5
21	72	100	74	100	88	59	73	100	76.8	89.8
22	71	100	71	100	82	78	69	100	73.3	94.5
23	62	100	62	100	66	100	70	96	65.0	99.0
24	66	100	63	87	80	47	78	42	71.8	69.0
25	64	88	62	100	80	43	66	97	68.0	82.0
26	63	100	61	100	84	43	78	43	71.5	71.5
27	64	99	62	100	91	36	82	57	74.8	73.0
28	73	89	71	100	84	51	74	59	75.5	74.8
29	66	79	66	90	83	40	76	55	72.8	66.0
30	67	80	66	93	81	47	70	100	71.0	80.0
31	69	100	71	98	78	100	76	93	73.5	97.7
Avg.	68.9	96.9	68.5	98.4	81.0	63.5	76.3	79.4		

Table 22. Six Hourly Temperature and Relative Humidity, September 1969

Date	Midnight		6:00 AM		Noon		6:00 PM		Average	
	Temp.	R.H.	Temp.	R.H.	Temp.	R.H.	Temp.	R.H.	Temp.	R.H.
1	68	100	70	100	84	55	78	82	75.0	84.3
2	69	100	68	100	83	58	76	85	74.0	85.8
3	70	100	70	100	83	52	75	88	74.5	85.0
4	69	100	69	100	83	60	76	85	74.3	86.3
5	68	100	72	98	85	50	77	86	75.5	83.5
6	71	98	73	100	70	100	71	100	71.3	99.5
7	68	100	72	95	85	59	81	78	76.5	83.0
8	72	100	69	100	73	90	77	94	72.8	96.0
9	69	96	66	100	81	36	71	49	71.8	70.3
10	59	62	53	90	74	43	66	62	63.0	64.3
11	57	76	56	83	72	52	64	84	62.3	73.8
12	61	95	60	100	77	38	66	88	66.0	80.3
13	57	100	61	85	78	38	65	79	65.3	75.5
14	60	88	63	86	77	42	69	63	67.3	69.8
15	64	72	65	90	81	47	75	68	71.3	69.3
16	68	100	69	99	77	81	74	80	72.0	90.0
17	68	100	69	100	85	52	76	82	74.5	83.5
18	68	100	72	100	89	42	74	94	75.8	84.0
19	70	100	71	100	72	100	65	100	69.5	100.0
20	63	100	61	100	69	86	63	98	64.0	96.0
21	63	100	61	100	63	100	62	100	62.3	100.0
22	63	100	63	100	66	100	64	100	64.0	100.0
23	64	100	64	100	71	97	74	84	68.3	95.3
24	66	100	64	100	74	74	69	88	68.3	90.5
25	64	100	62	100	78	56	69	78	68.3	83.5
26	61	81	58	100	78	42	66	76	65.8	74.8
27	69	92	61	100	82	37	67	78	69.8	76.8
28	65	79	64	100	82	40	69	70	70.0	72.3
29	61	68	61	98	76	48	68	62	66.5	69.0
30	61	79	57	89	66	46	59	84	60.8	74.5
Avg.	62.9	89.8	62.7	93.9	74.6	53.7	67.9	79.5		

Table 23. Six Hourly Temperature and Relative Humidity, October 1969

Date	Midnight		6:00 AM		Noon		6:00 PM		Average	
	Temp.	R.H.	Temp.	R.H.	Temp.	R.H.	Temp.	R.H.	Temp.	R.H.
1	57	92	59	100	67	100	71	99	63.5	97.8
2	67	100	61	100	67	91	61	100	64.0	97.8
3	55	100	60	100	83	48	73	68	67.8	79.0
4	66	98	68	99	81	47	70	79	71.3	80.8
5	65	92	66	98	77	52	65	74	68.3	79.0
6	62	88	60	100	76	61	69	89	66.8	84.5
7	64	95	62	100	81	57	73	82	70.0	83.5
8	67	98	66	100	72	96	68	94	68.3	97.0
9	62	82	57	96	78	72	70	96	66.8	86.5
10	65	100	76	100	79	64	68	95	72.0	89.8
11	64	100	67	99	81	58	71	94	70.8	87.8
12	67	92	68	100	82	46	68	100	71.3	84.5
13	62	100	65	100	82	44	69	80	69.5	81.0
14	61	100	65	100	66	72	57	82	62.3	88.5
15	53	97	53	100	74	57	61	96	60.3	87.5
16	56	100	53	100	75	42	59	73	60.8	78.8
17	53	99	52	94	69	30	54	52	57.0	68.8
18	49	62	47	64	72	33	61	59	59.3	54.5
19	59	92	62	100	77	66	71	91	67.3	87.3
20	69	100	69	100	80	72	85	32	75.8	76.0
21	67	100	66	100	77	76	70	99	70.0	93.8
22	60	88	53	87	75	32	62	48	62.5	63.8
23	52	61	44	77	65	30	56	42	54.3	52.5
24	48	47	42	64	61	51	55	58	51.5	55.0
25	53	60	52	78	63	72	59	98	56.8	77.0
26	56	99	56	100	78	48	62	86	63.0	83.3
27	58	100	57	100	77	47	67	58	64.8	76.3
28	57	84	46	93	69	28	57	43	57.3	62.0
29	52	70	46	60	61	32	52	45	52.8	51.8
30	47	55	42	83	65	47	55	68	52.3	63.3
31	51	82	55	89	69	57	63	81	59.5	77.3
Avg.	58.8	88.1	57.9	92.9	73.5	55.7	64.1	77.9		

Table 24. Six Hourly Temperature and Relative Humidity, November 1969

6

Date	Midnight		6:00 AM		Noon		6:00 PM		Average	
	Temp.	R.H.	Temp.	R.H.	Temp.	R.H.	Temp.	R.H.	Temp.	R.H.
1	60	100	61	100	67	78	63	98	62.8	94.0
2	59	100	56	100	65	44	52	76	58.0	80.0
3	44	100	43	100	63	38	49	74	49.8	78.0
4	40	100	37	100	52	28	46	59	43.8	71.8
5	39	99	32	100	56	32	46	53	43.3	71.0
6	42	74	34	100	66	30	53	45	48.8	62.3
7	47	95	47	94	72	28	56	76	55.5	73.3
8	52	99	53	72	74	29	53	62	58.0	65.5
9	51	50	45	69	71	31	59	56	56.5	51.5
10	51	72	46	100	68	34	58	40	55.8	61.5
11	51	64	41	100	72	26	59	40	55.8	57.5
12	58	62	57	100	67	57	56	59	59.5	69.5
13	48	68	42	82	47	90	42	96	44.8	84.0
14	40	100	41	100	41	28	30	40	38.0	67.0
15	22	72	18	96	41	32	32	40	28.2	60.0
16	26	86	27	92	59	23	45	30	39.3	57.8
17	40	47	41	66	65	50	61	66	51.8	57.3
18	53	92	53	100	69	58	64	52	59.8	75.5
19	63	75	45	100	42	72	37	53	46.8	75.0
20	27	74	23	100	53	25	42	40	36.3	59.8
21	38	60	33	91	63	26	44	50	44.5	56.8
22	34	100	34	100	66	22	47	45	45.3	66.8
23	42	82	47	100	68	52	53	100	52.5	83.5
24	49	100	46	100	72	36	57	54	56.0	72.5
25	53	93	54	90	68	62	56	100	57.8	86.3
26	51	100	47	100	67	52	50	98	53.8	87.5
27	45	100	44	82	65	50	55	78	52.3	77.5
28	51	54	46	68	64	36	48	60	52.3	54.5
29	37	100	36	100	57	36	42	48	43.0	71.0
30	35	59	31	91	54	26	41	31	40.3	51.8
Avg.	43.5	79.9	40.6	44.6	60.0	54.8	48.2	58.7		

Table 25. Six Hourly Temperature and Relative Humidity, December 1969

Date	Midnight		6:00 AM		Noon		6:00 PM		Average	
	Temp.	R.H.	Temp.	R.H.	Temp.	R.H.	Temp.	R.H.	Temp.	R.H.
1	36	50	33	74	60	32	49	36	44.5	48.0
2	41	54	32	80	57	26	43	36	43.3	49.0
3	39	69	31	100	59	26	48	27	44.3	55.5
4	39	34	29	74	48	32	37	35	38.3	43.8
5	31	45	29	49	46	30	44	33	37.5	39.3
6	39	65	37	66	40	100	43	100	39.8	82.8
7	53	100	54	100	47	85	46	88	50.0	93.3
8	41	94	40	100	41	88	40	87	40.5	92.3
9	39	88	34	100	45	72	44	78	40.5	55.8
10	43	99	44	100	47	100	47	100	45.3	99.8
11	46	100	47	100	58	48	46	64	49.3	78.0
12	42	88	33	100	49	44	38	53	40.5	71.3
13	29	100	27	100	57	28	46	50	39.8	69.5
14	43	69	45	74	63	44	50	35	50.3	55.5
15	37	64	32	74	60	28	45	53	43.5	54.8
16	39	72	31	96	53	32	40	48	40.8	62.0
17	32	69	28	90	56	28	41	46	39.3	58.3
18	31	90	34	72	55	36	46	60	41.5	64.5
19	46	72	47	98	59	57	47	60	49.8	71.8
20	36	58	29	76	52	30	39	40	39.0	51.0
21	41	47	39	100	40	100	40	100	40.8	86.8
22	36	90	36	96	37	82	36	83	36.3	87.8
23	30	100	29	100	42	100	46	100	36.8	100.0
24	37	82	30	88	48	38	38	70	38.3	69.5
25	35	72	39	66	46	100	39	100	39.8	84.5
26	39	100	35	81	48	34	35	45	39.3	65.0
27	29	96	29	96	55	24	37	56	37.5	68.0
28	37	52	34	60	63	36	53	74	46.8	55.5
29	47	78	47	74	66	59	63	85	55.8	74.0
30	62	99	65	98	69	96	46	99	60.5	98.0
31	40	100	38	92	39	80	37	90	38.5	90.5
Avg.	39.2	77.3	36.6	86.2	51.7	55.3	43.6	65.5		

Table 26. Soil Temperature and Wind, January 1969

Date	Soil Temperature						Wind at 12'	
	5 cm.		10 cm.		20 cm.		Prvl. dir.	Miles per day
	Max.	Min.	Max.	Min.	Max.	Min.		
1	47	37	48	40	44	40	N	87
2	44	36	45	38	41	38	SW	43
3	53	36	52	38	47	35	N	82
4	47	39	47	42	44	39	N	131
5	44	35	44	37	40	37	SE	29
6	44	34	44	36	40	34	SW	79
7	51	34	50	36	45	33	NW	95
8	52	36	53	38	49	35	S	150
9	56	36	56	38	51	35	SW	160
10	48	38	48	40	44	41	N	129
11	47	37	48	39	43	39	N	132
12	47	37	47	38	42	36	N	82
13	51	35	50	37	44	35	NE	72
14	54	34	53	37	47	35	NE	92
15	51	36	50	38	46	37	E	88
16	55	38	54	40	47	40	E	149
17	55	37	55	40	50	39	E	146
18	57	47	57	48	53	44	E	116
19	58	54	58	56	55	49	SE	156
20	53	53	55	54	53	52	W	109
21	53	51	53	52	50	50	SW	46
22	50	49	50	50	48	48	E	115
23	56	48	57	49	54	46	E	168
24	66	49	65	50	59	47	W	145
25	54	42	54	45	50	46	N	164
26	53	38	52	40	47	40	N	111
27	53	41	53	42	49	38	E	168
28	46	43	47	45	45	43	E	184
29	51	41	51	45	48	42	E	158
30	65	45	64	47	56	44	S	121
31	63	48	63	49	58	46	S	62
Total	1624	1264	1623	1324	1489	1263		3569
Avg.	52.4	40.8	52.4	42.7	48.0	40.7	E	115.1

Table 27. Soil Temperature and Wind, February 1969

Date	Soil Temperature						Wind at 12'	
	5 cm.		10 cm.		20 cm.		Prvl. dir.	Miles per day
	Max.	Min.	Max.	Min.	Max.	Min.		
1	67	56	66	58	60	52	S	87
2	62	57	63	58	59	53	S	119
3	56	54	56	56	56	56	NW	205
4	57	38	56	40	50	42	W	77
5	60	37	58	40	52	41	W	56
6	50	37	51	40	49	40	S	86
7	67	45	66	47	58	46	E	46
8	58	46	58	49	54	47	S	127
9	59	49	58	49	52	48	NW	211
10	57	39	57	41	51	42	N	67
11	57	38	56	41	51	40	W	62
12	60	41	58	43	52	43	W	141
13	57	37	56	40	50	40	N	124
14	43	35	44	39	42	37	E	175
15	39	39	41	41	40	40	E	228
16	41	39	42	40	40	39	N	91
17	45	39	45	40	42	38	W	108
18	50	40	48	41	43	39	N	145
19	58	36	56	38	53	37	N	112
20	61	35	59	37	51	37	N	85
21	61	38	58	40	51	39	E	137
22	45	41	47	43	45	42	E	152
23	51	43	51	46	47	43	N	85
24	61	41	60	43	58	43	N	101
25	64	39	62	41	54	42	N	104
26	64	39	62	41	53	40	N	110
27	66	39	64	42	56	41	N	79
28	53	40	53	43	50	42	E	95
Total	1569	1157	1551	1217	1419	1189		3215
Avg.	56.0	41.3	55.4	43.5	50.7	42.5	N	114.8

Table 28. Soil Temperature and Wind, March 1969

Date	Soil Temperature						Wind at 12'	
	5 cm.		10 cm.		20 cm.		Prvl. dir.	Miles per day
	Max.	Min.	Max.	Min.	Max.	Min.		
1	61	41	59	42	52	43	N	111
2	65	39	62	41	54	42	N	108
3	48	41	48	44	46	40	E	88
4	60	41	59	43	52	42	N	140
5	59	38	57	40	51	40	S	105
6	46	37	47	40	45	38	E	174
7	64	41	62	43	55	42	W	93
8	67	40	64	43	57	42	S	112
9	54	44	53	47	50	45	W	209
10	58	37	56	39	49	40	W	187
11	56	36	55	38	48	39	N	105
12	53	34	52	38	46	37	N	74
13	60	36	58	38	50	39	NW	100
14	58	36	58	38	52	38	N	86
15	56	40	56	41	51	41	N	103
16	50	48	51	50	49	47	E	97
17	55	48	56	46	51	47	E	116
18	60	48	60	51	54	47	E	156
19	68	50	68	51	61	50	N	75
20	70	49	69	51	62	47	SW	96
21	70	49	69	52	63	48	N	92
22	71	50	70	51	63	51	N	90
23	58	53	57	54	55	51	E	241
24	71	54	70	55	63	52	S	199
25	56	50	57	52	54	52	W	140
26	61	42	60	43	55	45	W	142
27	62	39	60	42	54	43	W	69
28	69	43	68	44	61	42	W	59
29	74	46	73	47	64	44	W	71
30	75	54	73	55	65	52	N	105
31	74	47	72	50	64	51	N	129
Total	1909	1351	1879	1409	1696	1377		3672
Avg.	61.6	43.6	60.6	45.5	54.7	44.4	N	118.5

Table 29. Soil Temperature and Wind, April 1969

Date	Soil Temperature						Wind at 12'	
	5 cm.		10 cm.		20 cm.		Prvl. dir.	Miles per day
	Max.	Min.	Max.	Min.	Max.	Min.		
1	82	47	79	49	70	48	S	75
2	85	51	82	53	72	52	W	66
3	88	58	85	58	76	55	W	41
4	88	61	85	63	77	60	S	71
5	69	62	69	63	67	62	S	87
6	74	64	73	65	69	64	N	80
7	75	58	63	59	68	59	E	137
8	78	55	76	57	70	57	E	113
9	78	57	77	57	70	56	SE	115
10	68	61	67	61	63	59	S	56
11	80	61	78	63	72	60	N	49
12	82	60	79	61	72	59	E	138
13	71	65	70	64	66	65	E	203
14	65	61	65	62	63	61	E	144
15	77	61	75	62	70	60	S	98
16	76	65	77	66	71	63	SE	34
17	77	66	76	67	71	65	S	102
18	79	66	78	68	74	65	W	151
19	65	60	65	62	64	62	W	108
20	78	56	76	57	70	57	N	72
21	81	56	79	57	73	56	E	67
22	82	58	80	59	73	57	NW	103
23	82	57	79	59	72	60	NW	83
24	82	53	79	56	73	52	W	68
25	86	53	83	56	75	57	S	36
26	89	57	86	59	78	58	S	54
27	90	61	88	63	80	61	S	91
28	83	64	81	65	75	64	W	82
29	84	61	82	63	76	64	N	102
30	85	55	82	57	75	60	N	90
Total	2379	1770	2314	1811	2145	1778		2716
Avg.	79.3	59.0	77.1	60.4	71.5	59.3	S	90.5

Table 30. Soil Temperature and Wind, May 1969

Date	Soil Temperature						Wind at 12'	
	5 cm.		10 cm.		20 cm.		Prvl. dir.	Miles per day
	Max.	Min.	Max.	Min.	Max.	Min.		
1	81	55	79	57	73	59	E	105
2	86	60	84	62	77	62	E	115
3	80	61	78	63	72	62	E	78
4	84	62	82	64	75	64	E	67
5	91	62	88	64	80	64	E	45
6	94	62	91	64	83	63	SE	65
7	98	66	86	68	79	66	SE	58
8	86	69	84	71	78	71	S	115
9	82	68	81	70	77	70	NW	135
10	84	59	82	61	76	64	SW	85
11	85	62	83	64	77	64	NW	69
12	89	60	87	62	80	63	SW	52
13	90	60	88	62	82	62	E	33
14	70	63	71	66	70	66	E	103
15	71	64	71	65	68	65	NE	143
16	80	63	78	65	74	64	E	116
17	74	65	74	67	72	66	E	115
18	71	69	71	70	69	67	SE	107
19	87	68	84	69	77	67	SE	38
20	90	69	88	69	81	67	N	40
21	89	68	87	70	80	69	E	71
22	90	68	89	70	83	69	E	37
23	94	71	92	73	85	71	NW	40
24	88	71	87	74	81	73	N	56
25	93	70	91	72	84	71	N	71
26	90	70	88	72	82	72	N	62
27	89	71	87	72	81	71	E	75
28	88	69	86	70	81	71	E	68
29	91	68	89	70	82	71	N	42
30	92	70	91	72	84	70	N	61
31	98	70	96	72	88	72	W	36
Total	2675	2033	2613	2090	2431	2076		2303
Avg.	86.3	65.6	84.3	67.4	78.4	67.0	E	74.3

Table 31. Soil Temperature and Wind, June 1969

Date	Soil Temperature						Wind at 12'	
	5 cm.		10 cm.		20 cm.		Prvl. dir.	Miles per day
	Max.	Min.	Max.	Min.	Max.	Min.		
1	100	75	97	76	89	74	W	33
2	94	74	91	75	86	76	W	73
3	95	67	93	70	86	72	N	79
4	87	66	85	69	80	70	NE	88
5	82	66	81	69	77	70	E	75
6	96	68	93	70	86	70	N	58
7	102	66	100	70	92	70	E	32
8	104	75	101	73	94	74	E	30
9	107	76	103	72	95	75	S	37
10	102	78	98	80	91	80	E	55
11	95	73	93	75	88	76	E	65
12	95	72	93	74	87	75	E	72
13	102	75	99	77	91	77	E	70
14	101	75	98	78	91	77	E	52
15	95	77	94	79	88	80	E	68
16	92	73	91	75	86	78	N	88
17	94	70	92	72	87	73	N	51
18	97	70	95	72	88	73	W	47
19	98	73	95	75	90	74	W	73
20	91	72	89	74	85	75	S	67
21	93	71	91	73	85	73	W	39
22	93	74	92	75	87	74	W	43
23	94	78	93	79	88	77	W	56
24	97	79	96	80	91	78	W	47
25	99	79	98	80	92	79	S	47
26	103	80	102	80	94	80	S	32
27	106	80	103	81	96	81	E	31
28	108	80	105	82	97	82	N	36
29	108	83	105	85	97	84	E	47
30	108	80	105	82	97	84	E	37
Total	2938	2225	2871	2272	2631	2281		1628
Avg.	97.9	74.2	95.7	75.7	89.4	76.0	E	54.2

Table 32. Soil Temperature and Wind, July 1969

Date	Soil Temperature						Wind at 12'	
	5 cm.		10 cm.		20 cm.		Prvl. dir.	Miles per day
	Max.	Min.	Max.	Min.	Max.	Min.		
1	110	79	107	82	97	83	N	43
2	107	82	104	83	97	84	N	50
3	110	81	106	83	99	83	W	35
4	109	82	107	84	99	84	S	39
5	109	85	107	86	100	86	SW	34
6	109	84	107	86	99	87	W	32
7	111	85	108	87	100	88	W	56
8	107	86	104	88	97	87	W	49
9	105	83	102	85	95	86	N	54
10	97	79	95	80	90	82	E	26
11	98	80	96	81	91	80	S	49
12	84	80	84	81	83	81	W	51
13	97	78	94	79	88	78	W	55
14	95	75	93	76	87	77	N	34
15	94	75	92	76	88	77	E	70
16	92	75	90	77	86	78	E	89
17	87	75	86	77	83	76	E	64
18	94	73	91	75	85	76	E	49
19	95	74	93	75	88	74	E	42
20	97	76	94	78	89	78	E	35
21	93	75	92	77	87	78	E	53
22	94	76	92	78	87	77	SE	31
23	94	77	93	78	88	79	S	63
24	95	77	93	79	88	79	W	43
25	94	79	92	80	88	80	W	38
26	92	77	90	79	86	79	W	45
27	92	78	89	79	84	79	W	42
28	84	75	83	77	81	77	W	41
29	92	73	89	75	83	75	W	36
30	96	74	94	75	88	75	N	38
31	96	74	94	75	88	75	E	38
Total	3029	2422	2961	2471	2789	2478		1312
Avg.	97.7	78.1	95.5	79.7	89.9	79.9	W	42.3

Table 33. Soil Temperature and Wind, August 1969

Date	Soil Temperature						Wind at 12'	
	5 cm.		10 cm.		20 cm.		prvl.	Miles
	Max.	Min.	Max.	Min.	Max.	Min.	dir.	per day
1	101	74	97	76	91	76	E	38
2	98	76	95	78	89	78	S	46
3	88	75	86	77	83	77	E	37
4	85	74	84	76	82	77	E	42
5	89	72	88	73	84	74	E	23
6	94	72	92	74	87	73	E	15
7	96	72	95	74	88	75	S	24
8	99	73	97	76	91	76	S	41
9	102	74	101	77	93	78	S	54
10	85	79	86	80	83	80	W	59
11	102	72	98	74	91	77	N	49
12	97	71	94	74	87	75	NE	49
13	91	73	89	74	84	75	E	60
14	91	71	88	73	84	74	E	45
15	82	71	81	73	79	74	E	47
16	90	75	88	77	73	77	S	39
17	94	75	93	77	87	76	E	58
18	82	75	82	77	79	77	S	74
19	92	74	90	76	85	76	S	65
20	94	75	92	77	87	77	W	33
21	94	77	92	78	86	79	N	26
22	89	76	88	78	84	78	E	49
23	76	70	76	72	75	73	E	65
24	87	68	86	70	81	70	NE	55
25	90	67	88	69	83	69	E	35
26	93	67	91	70	85	69	NE	22
27	97	68	93	77	87	71	N	29
28	94	69	92	72	86	72	E	53
29	96	69	94	72	87	74	NE	56
30	94	68	92	72	86	73	NE	65
31	85	73	84	75	81	74	E	66
Total	2849	2245	2792	2321	2638	2324		1419
Avg.	91.9	72.4	90.0	74.9	85.1	74.9	E	45.8

Table 34. Soil Temperature and Wind, September 1969

Date	Soil Temperature						Wind at 12'	
	5 cm.		10 cm.		20 cm.		Prvl. dir.	Miles per day
	Max.	Min.	Max.	Min.	Max.	Min.		
1	93	73	92	75	86	76	E	39
2	97	74	94	76	88	77	E	31
3	97	73	94	76	88	76	E	35
4	97	74	94	76	88	77	E	30
5	100	74	97	76	92	77	E	34
6	94	75	92	77	86	79	E	42
7	91	73	89	75	84	76	N	26
8	90	75	88	76	83	75	W	21
9	88	71	87	73	83	75	N	75
10	85	63	83	66	79	69	N	57
11	78	62	78	65	76	67	N	40
12	89	62	87	64	81	66	E	20
13	90	64	88	67	83	67	NE	28
14	91	67	89	68	83	69	E	38
15	95	69	92	70	85	70	E	50
16	90	68	88	71	83	71	E	50
17	97	74	94	75	87	75	S	25
18	102	73	99	75	90	75	NE	24
19	86	73	86	76	83	75	E	56
20	76	69	76	71	74	72	E	80
21	67	67	69	68	70	70	NE	102
22	70	66	71	68	70	68	E	72
23	76	66	76	68	73	67	E	36
24	78	67	77	69	74	67	N	31
25	83	66	82	68	77	68	N	46
26	85	63	83	65	78	67	N	40
27	87	63	85	65	80	66	N	33
28	87	65	86	68	80	67	N	23
29	86	64	82	66	78	68	E	39
30	74	63	73	65	71	66	NE	74
Total	2619	2056	2571	2118	2433	2138		1297
Avg.	85.3	68.5	85.7	70.6	81.1	71.2	E	43.2

Table 35. Soil Temperature and Wind, October 1969

Date	Soil Temperature						Wind at 12'	
	5 cm.		10 cm.		20 cm.		Prvl. dir.	Miles per day
	Max.	Min.	Max.	Min.	Max.	Min.		
1	72	61	71	64	69	65	E	99
2	72	62	72	63	70	63	W	35
3	84	60	82	63	76	63	N	63
4	86	60	84	63	78	63	NE	56
5	85	64	83	65	78	66	E	75
6	85	63	82	65	77	67	E	65
7	86	62	82	65	77	66	E	48
8	78	63	77	66	74	67	N	53
9	87	62	84	64	79	66	E	50
10	88	61	86	64	80	65	E	46
11	90	67	88	69	81	69	E	44
12	92	68	90	70	83	68	E	21
13	92	67	90	69	83	70	W	21
14	78	67	78	69	75	69	N	64
15	83	63	79	65	74	66	N	33
16	87	60	86	64	78	65	N	29
17	84	59	82	62	76	65	N	61
18	85	57	82	60	76	63	E	65
19	85	60	82	63	75	62	E	65
20	89	67	86	68	79	66	S	32
21	80	70	80	72	76	71	N	44
22	83	59	81	61	75	65	N	82
23	78	54	77	57	72	60	E	97
24	71	52	70	56	67	59	E	90
25	73	52	71	56	67	58	E	53
26	85	58	80	61	74	61	NE	45
27	85	60	82	61	75	60	N	65
28	80	58	78	60	73	62	N	79
29	76	56	74	58	69	60	E	91
30	74	53	72	56	68	68	E	80
31	77	57	74	54	70	56	E	53
Total	2550	1882	2485	1953	2324	1984		1804
Avg.	82.3	60.7	80.2	63.0	74.9	64.0	E	58.1

Table 36. Soil Temperature and Wind, November 1969

Date	Soil Temperature						Wind at 12'	
	5 cm.		10 cm.		20 cm.		Prvl. dir.	Miles per day
	Max.	Min.	Max.	Min.	Max.	Min.		
1	74	58	73	60	69	59	NW	62
2	75	60	73	63	69	63	NW	57
3	75	52	73	54	67	56	W	40
4	71	50	68	52	63	53	N	49
5	70	46	68	49	63	51	W	48
6	74	46	52	48	65	49	NW	67
7	77	48	76	50	69	51	W	47
8	79	55	77	57	71	56	N	81
9	79	54	77	56	70	57	N	105
10	78	54	77	56	68	57	N	96
11	78	53	76	55	69	57	N	66
12	73	52	72	55	69	55	NW	104
13	58	50	58	53	57	55	E	48
14	60	48	58	50	51	51	W	178
15	58	37	57	40	53	42	W	61
16	65	37	63	40	57	42	E	65
17	67	45	64	47	58	44	E	143
18	71	44	69	46	63	46	SE	168
19	55	55	56	56	58	55	N	182
20	59	38	58	41	54	44	NW	79
21	65	38	64	40	53	42	W	51
22	67	41	64	43	59	44	S	46
23	66	49	64	49	59	46	S	39
24	74	52	72	53	65	51	N	55
25	69	51	67	53	62	52	NE	80
26	70	51	68	54	63	54	N	53
27	62	50	62	52	59	53	N	74
28	68	50	66	52	61	53	N	148
29	66	46	63	47	58	49	N	109
30	62	39	60	43	55	45	W	107
Total	2065	1449	1995	1514	1857	1532		2488
Avg.	68.8	48.3	66.5	50.4	61.9	51.1	N	82.7

Table 37. Soil Temperature and Wind, December 1969

Date	Soil Temperature						Wind at 12'	
	5 cm.		10 cm.		20 cm.		Prvl. dir.	Miles per day
	Max.	Min.	Max.	Min.	Max.	Min.		
1	64	40	62	43	57	43	W	103
2	64	41	62	43	56	44	NW	91
3	64	41	61	44	56	45	W	124
4	60	40	58	43	54	43	N	155
5	53	38	53	41	50	43	E	129
6	53	39	50	42	50	43	E	223
7	53	43	54	46	51	46	W	151
8	47	47	48	49	47	48	W	72
9	48	40	49	43	47	43	E	143
10	50	40	51	42	48	42	NE	143
11	59	46	58	47	53	45	W	155
12	54	41	54	43	50	44	NW	106
13	56	38	55	40	50	41	N	64
14	59	40	58	42	53	39	W	145
15	57	39	56	42	51	42	N	83
16	55	38	54	40	50	40	N	119
17	56	37	55	40	50	40	N	55
18	54	37	53	40	48	40	SW	64
19	59	37	57	40	52	40	W	100
20	57	37	55	39	51	41	N	85
21	56	38	54	40	50	41	E	202
22	42	39	43	40	41	40	W	161
23	46	37	46	38	42	38	S	76
24	53	36	52	38	47	37	N	76
25	44	37	45	38	43	37	E	183
26	50	40	50	41	46	41	NW	188
27	53	37	53	38	47	38	N	49
28	57	36	56	38	50	37	SE	75
29	61	39	60	40	57	38	S	175
30	64	46	64	47	60	45	S	266
31	58	47	49	49	50	50	W	103
Total	1706	1231	1675	1296	1557	1294		3864
AVG.	55.0	39.7	54.0	41.8	50.2	41.7	W	124.6

Table 38. Duration in Hours and Tenths of Hours that the Temperature was at 32° or Lower

1969 Date	Min.	32°	30°	28°	26°	24°	22°	20°	18°	16°
1-1-69	23.0	17.0	14.4	9.6	5.0	2.1				
1-2-69	25.0	8.6	8.2	7.9	4.4					
1-4-69	20.0	15.8	13.1	9.4	6.0	4.8	2.6	1.0		
1-5-69	16.3	17.2	16.2	14.1	11.3	8.6	7.9	7.6	4.2	0.6
1-6-69	20.0	9.6	9.3	8.7	8.0	7.4	4.5	0.2		
1-7-69	32.0	0.5								
1-8-69	29.5	4.2	0.6							
1-10-69	23.0	14.1	12.1	6.0	4.1	1.4				
1-11-69	28.0	9.8	1.5	0.1						
1-12-69	25.0	8.0	7.6	6.2	2.6					
1-13-69	27.5	5.6	4.1	0.6						
1-14-69	31.0	1.1								
1-25-69	31.6	0.2								
1-26-69	28.4	7.0	3.2	0.2						
2-4-69	26.5	7.8	6.3	4.2						
2-5-69	31.0	2.8								
2-10-69	28.0	7.3	4.9	0.8						
2-12-69	30.0	1.2	0.1							
2-13-69	25.5	8.0	7.4	4.4	1.1					
2-15-69	32.0	0.8								
2-16-69	30.9	5.9								
2-18-69	31.0	2.1								
2-19-69	28.5	7.4	5.5							
3-1-69	30.5	3.6								
3-2-69	30.6	3.9								
3-5-69	31.5	1.4								
3-9-69	30.0	3.6	0.3							
3-10-69	26.0	9.1	7.7	3.1	0.4					
3-11-69	22.5	11.3	9.6	7.6	5.4	3.1				
3-12-69	26.0	9.5	6.8	2.3	0.1					
3-13-69	27.5	6.6	4.1	1.9						
3-14-69	29.5	2.2	0.9							
3-26-69	31.5	1.5								
3-27-69	28.0	3.7	2.6	0.3						

Table 38. (cont.)

1969										
Date	Min.	32°	30°	28°	26°	24°	22°	20°	18°	16°
11-5-69	32.0	0.5								
11-14-69	22.0	7.1	5.9	5.0	3.6	2.3	0.3			
11-15-69	18.0	14.6	13.3	11.4	7.3	6.7	6.5	3.6	0.6	
11-16-69	25.2	6.5	6.2	5.9	3.2					
11-19-69	27.0	2.2	1.6	0.5						
11-20-69	23.0	7.8	7.2	7.0	6.1	2.3				
11-22-69	31.4	0.8								
11-30-69	28.0	3.7	2.0	0.2						
12-1-69	31.5	1.4								
12-2-69	31.5	0.6								
12-3-69	31.5	0.9								
12-4-69	29.0	7.3	1.8							
12-5-69	29.0	7.1	4.5							
12-12-69	28.5	2.9	1.5							
12-13-69	26.0	6.8	6.0	4.6	0.8					
12-15-69	30.5	0.8								
12-16-69	30.0	3.1	0.8							
12-17-69	28.0	7.4	7.0	2.0						
12-18-69	31.0	2.5								
12-20-69	29.0	2.9	1.5							
12-22-69	30.0	0.7	0.1							
12-23-69	27.5	8.0	7.0	0.9						
12-24-69	29.0	3.1	1.0							
12-26-69	29.0	5.0	1.4							
12-27-69	28.0	6.6	6.1	0.2						

Table 39. Cooling Degree Days 1969- Base 75°

Date	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	0	0	0	0	0	3	8	5	2	0	0	0
2	0	0	0	0	0	0	8	3	2	0	0	0
3	0	0	0	0	0	0	8	0	2	0	0	0
4	0	0	0	0	0	0	9	0	3	0	0	0
5	0	0	0	0	0	0	9	0	4	0	0	0
6	0	0	0	0	0	0	9	1	0	0	0	0
7	0	0	0	0	0	0	11	3	3	0	0	0
8	0	0	0	0	0	0	10	5	3	0	0	0
9	0	0	0	0	0	0	5	6	0	0	0	0
10	0	0	0	0	0	4	8	3	0	0	0	0
11	0	0	0	0	0	1	7	2	0	0	0	0
12	0	0	0	0	0	3	1	1	0	0	0	0
13	0	0	0	0	0	5	6	0	0	0	0	0
14	0	0	0	0	0	5	5	0	0	0	0	0
15	0	0	0	0	0	4	6	0	0	0	0	0
16	0	0	0	0	0	0	5	3	1	0	0	0
17	0	0	0	0	0	0	2	6	2	0	0	0
18	0	0	0	0	0	0	2	2	5	0	0	0
19	0	0	0	0	0	3	5	7	0	0	0	0
20	0	0	0	0	0	0	4	8	0	2	0	0
21	0	0	0	0	1	0	5	6	0	0	0	0
22	0	0	0	0	2	4	5	0	0	0	0	0
23	0	0	0	0	3	7	5	0	0	0	0	0
24	0	0	0	0	1	8	5	0	0	0	0	0
25	0	0	0	0	0	8	5	0	0	0	0	0
26	0	0	0	0	1	8	4	0	0	0	0	0
27	0	0	0	0	0	9	4	0	0	0	0	0
28	0	0	0	0	0	11	1	0	0	0	0	0
29	0	0	0	0	0	9	2	0	0	0	0	0
30	0	0	0	0	3	6	3	0	0	0	0	0
31	0	0	0	0	2	0	3	0	0	0	0	0
Total	0	0	0	0	13	110	174	61	27	2	0	0

Table 40. Heating Degree Days 1969- Base 65°

Date	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	32	0	23	2	0	0	0	0	0	0	0	17
2	29	0	20	0	0	0	0	0	0	0	8	19
3	19	19	23	0	0	0	0	0	0	0	13	18
4	36	24	21	0	0	0	0	0	0	0	17	25
5	40	20	21	0	0	0	0	0	0	0	19	26
6	29	17	23	0	0	0	0	0	0	0	13	19
7	22	10	19	2	0	0	0	0	0	0	5	19
8	18	11	12	1	0	0	0	0	0	0	0	23
9	17	23	25	0	4	0	0	0	0	0	6	24
10	32	23	26	2	5	0	0	0	0	0	7	20
11	27	17	29	0	6	0	0	0	0	0	7	16
12	28	19	27	0	0	0	0	0	0	0	6	25
13	23	25	23	0	0	0	0	0	0	0	18	23
14	21	26	20	2	2	0	0	0	0	4	25	14
15	21	30	15	0	1	0	0	0	0	2	30	19
16	16	31	17	0	0	0	0	0	0	0	21	22
17	14	27	13	0	0	0	0	0	0	5	11	21
18	7	27	9	0	0	0	0	0	0	5	1	20
19	7	22	6	8	0	0	0	0	0	0	20	16
20	16	18	5	5	0	0	0	0	0	0	25	23
21	18	17	6	3	0	0	0	0	2	0	15	24
22	18	22	8	0	0	0	0	0	0	0	15	31
23	11	21	9	4	0	0	0	0	0	9	8	24
24	13	19	0	8	0	0	0	0	0	13	4	24
25	23	18	20	4	0	0	0	0	0	4	4	24
26	23	18	21	2	0	0	0	0	0	0	9	25
27	17	13	21	0	0	0	0	0	0	0	11	22
28	24	19	13	0	0	0	0	0	0	6	14	15
29	17		7	3	0	0	0	0	0	10	18	7
30	4		8	4	0	0	0	0	3	10	24	8
31	2		11		0		0	0		3		27
Total	624	536	501	50	18	0	0	0	5	71	374	640

Table 41. Time of Sunrise at Auburn, Alabama (a.m., CST),
Latitude $32^{\circ} 34'$ N., Longitude $85^{\circ} 31'$ W.

Date	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	6:47	6:40	6:14	5:33	4:58	4:38	4:41	4:59	5:19	5:39	6:02	6:29
2	6:47	6:39	6:12	5:33	4:57	4:38	4:41	5:00	5:20	5:40	6:03	6:29
3	6:47	6:39	6:11	5:31	4:57	4:38	4:42	5:00	5:21	5:40	6:04	6:30
4	6:48	6:38	6:10	5:29	4:56	4:38	4:42	5:01	5:21	5:41	6:05	6:31
5	6:48	6:37	6:09	5:28	4:55	4:37	4:43	5:02	5:22	5:42	6:06	6:32
6	6:48	6:36	6:07	5:27	4:54	4:37	4:43	5:02	5:23	5:42	6:07	6:33
7	6:48	6:36	6:06	5:26	4:53	4:37	4:43	5:03	5:23	5:43	6:08	6:33
8	6:48	6:35	6:05	5:24	4:52	4:37	4:44	5:04	5:24	5:44	6:08	6:34
9	6:48	6:34	6:04	5:23	4:51	4:37	4:44	5:04	5:24	5:45	6:09	6:35
10	6:48	6:33	6:02	5:22	4:51	4:37	4:45	5:05	5:25	5:45	6:10	6:36
11	6:48	6:32	6:01	5:21	4:50	4:37	4:46	5:06	5:26	5:46	6:11	6:36
12	6:48	6:31	6:00	5:19	4:49	4:37	4:46	5:06	5:26	5:47	6:12	6:37
13	6:48	6:31	5:58	5:18	4:48	4:37	4:47	5:07	5:27	5:48	6:13	6:38
14	6:47	6:30	5:57	5:17	4:48	4:37	4:47	5:08	5:28	5:48	6:14	6:38
15	6:47	6:29	5:56	5:16	4:47	4:37	4:48	5:08	5:28	5:49	6:15	6:39
16	6:47	6:28	5:55	5:14	4:46	4:37	4:49	5:09	5:29	5:50	6:15	6:40
17	6:47	6:27	5:53	5:13	4:45	4:37	4:49	5:10	5:30	5:51	6:16	6:40
18	6:46	6:26	5:52	5:12	4:45	4:37	4:50	5:10	5:30	5:51	6:17	6:41
19	6:46	6:25	5:51	5:11	4:44	4:37	4:50	5:11	5:31	5:52	6:18	6:41
20	6:46	6:24	5:49	5:10	4:44	4:37	4:51	5:11	5:32	5:53	6:19	6:42
21	6:45	6:23	5:48	5:09	4:43	4:38	4:52	5:12	5:32	5:54	6:20	6:42
22	6:45	6:22	5:47	5:08	4:42	4:38	4:52	5:13	5:33	5:55	6:21	6:42
23	6:45	6:20	5:45	5:07	4:42	4:38	4:53	5:13	5:34	5:55	6:22	6:43
24	6:44	6:19	5:44	5:06	4:41	4:38	4:54	5:14	5:34	5:56	6:23	6:44
25	6:44	6:18	5:43	5:04	4:41	4:39	4:54	5:15	5:35	5:57	6:23	6:44
26	6:43	6:17	5:41	5:03	4:41	4:39	4:55	5:15	5:36	5:58	6:24	6:45
27	6:43	6:16	5:40	5:02	4:40	4:39	4:56	5:16	5:36	5:58	6:25	6:45
28	6:42	6:15	5:39	5:01	4:40	4:40	4:56	5:17	5:37	5:59	6:26	6:45
29	6:42	6:14	5:37	5:00	4:39	4:40	4:57	5:17	5:38	6:00	6:27	6:46
30	6:41		5:36	4:59	4:39	4:40	4:58	5:18	5:38	6:01	6:28	6:46
31	6:41		5:36		4:39		4:58	5:19		6:02		6:46

Sunrise and sunset are considered to occur when the upper edge of the disk of the sun appears to be exactly on the horizon, with normal atmospheric conditions, and at zero elevation above the earth's surface in a level region. Times of sunrise and sunset shown in the tables are valid for the remainder of the 20th century.

Table 42. Time of Sunset at Auburn, Alabama (p.m., CST),
Latitude $32^{\circ} 34'$ N., Longitude $85^{\circ} 31'$ W.

Date	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	4:50	5:18	5:42	6:05	6:26	6:47	6:57	6:43	6:10	5:30	4:54	4:39
2	4:51	5:19	5:43	6:06	6:27	6:48	6:57	6:42	6:09	5:29	4:54	4:39
3	4:52	5:20	5:44	6:07	6:28	6:49	6:56	6:42	6:08	5:27	4:53	4:39
4	4:53	5:21	5:44	6:07	6:28	6:49	6:56	6:41	6:06	5:26	4:52	4:39
5	4:53	5:21	5:45	6:08	6:29	6:50	6:56	6:40	6:05	5:25	4:51	4:39
6	4:54	5:22	5:46	6:09	6:30	6:50	6:56	6:39	6:04	5:23	4:50	4:39
7	4:55	5:23	5:47	6:09	6:31	6:51	6:56	6:38	6:02	5:22	4:50	4:39
8	4:56	5:24	5:47	6:10	6:31	6:51	6:56	6:37	6:01	5:21	4:49	4:39
9	4:57	5:25	5:48	6:11	6:32	6:52	6:55	6:36	6:00	5:20	4:48	4:39
10	4:58	5:26	5:49	6:12	6:33	6:52	6:55	6:35	5:58	5:18	4:48	4:40
11	4:58	5:27	5:50	6:12	6:33	6:53	6:55	6:34	5:57	5:17	4:47	4:40
12	4:59	5:28	5:51	6:13	6:34	6:53	6:55	6:33	5:56	5:16	4:46	4:40
13	5:00	5:29	5:51	6:14	6:35	6:53	6:54	6:32	5:54	5:15	4:46	4:40
14	5:01	5:29	5:52	6:14	6:36	6:54	6:54	6:31	5:53	5:13	4:45	4:41
15	5:02	5:30	5:53	6:15	6:36	6:54	6:54	6:30	5:52	5:12	4:45	4:41
16	5:03	5:31	5:54	6:16	6:37	6:54	6:53	6:29	5:50	5:11	4:44	4:41
17	5:04	5:32	5:54	6:16	6:38	6:55	6:53	6:28	5:49	5:10	4:43	4:42
18	5:05	5:33	5:55	6:17	6:38	6:55	6:52	6:27	5:48	5:09	4:43	4:42
19	5:06	5:34	5:56	6:18	6:39	6:55	6:52	6:26	5:46	5:08	4:43	4:42
20	5:07	5:34	5:56	6:19	6:40	6:55	6:51	6:25	5:45	5:06	4:42	4:43
21	5:08	5:35	5:57	6:19	6:40	6:55	6:51	6:24	5:44	5:05	4:42	4:43
22	5:09	5:36	5:58	6:20	6:41	6:56	6:50	6:23	5:42	5:04	4:41	4:43
23	5:10	5:37	5:59	6:21	6:42	6:56	6:50	6:21	5:41	5:03	4:41	4:44
24	5:10	5:38	5:59	6:21	6:42	6:56	6:49	6:20	5:40	5:02	4:41	4:45
25	5:11	5:39	6:00	6:22	6:43	6:56	6:48	6:19	5:38	5:01	4:40	4:45
26	5:12	5:39	6:01	6:23	6:43	6:57	6:48	6:18	5:37	5:00	4:40	4:46
27	5:13	5:40	6:02	6:23	6:44	6:57	6:47	6:17	5:35	4:59	4:40	4:47
28	5:14	5:41	6:02	6:24	6:45	6:57	6:46	6:15	5:34	4:58	4:40	4:47
29	5:15	5:42	6:03	6:25	6:45	6:57	6:45	6:14	5:33	4:57	4:39	4:48
30	5:16		6:04	6:26	6:46	6:57	6:45	6:13	5:31	4:56	4:39	4:49
31	5:17		6:04		6:46		6:44	6:12		4:55		4:49

Sunrise and sunset are considered to occur when the upper edge of the disk of the sun appears to be exactly on the horizon, with normal atmospheric conditions, and at zero elevation above the earth's surface in a level region. Times of sunrise and sunset shown in the tables are valid for the remainder of the 20th century.

Table 43. Growing Degree Days for 1969 - Base 40°

Date	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	0	25	2	23	25	38	43	40	37	27	25	8
2	0	25	5	25	26	35	43	38	37	28	17	6
3	0	6	2	30	26	29	43	34	37	29	12	7
4	0	1	4	29	28	28	44	33	38	32	8	0
5	0	5	4	26	29	30	44	34	39	32	6	0
6	0	8	2	27	33	34	44	36	33	28	12	6
7	3	15	6	23	24	37	46	38	38	31	20	6
8	7	14	13	24	24	40	45	40	38	29	26	2
9	8	2	0	28	21	40	44	41	35	29	19	1
10	0	2	0	23	20	39	43	38	25	30	18	5
11	0	8	0	27	19	36	42	37	25	32	18	9
12	0	6	0	29	25	38	36	36	29	34	19	0
13	2	0	2	26	29	40	41	35	29	32	7	2
14	4	0	5	23	23	40	40	34	30	21	0	11
15	4	0	10	32	24	39	41	35	34	23	0	6
16	9	0	8	30	32	35	40	38	36	30	4	3
17	11	0	12	31	30	35	37	41	37	20	14	4
18	18	0	16	27	27	35	37	37	40	20	24	5
19	18	3	19	17	33	38	40	42	32	29	15	9
20	9	7	20	20	35	35	39	43	32	37	0	2
21	7	8	19	22	36	35	40	41	23	29	10	1
22	7	3	17	25	37	39	40	34	25	25	10	0
23	14	4	16	21	38	42	40	28	30	16	17	1
24	12	6	27	17	36	43	40	33	30	12	21	1
25	2	7	5	21	35	43	40	33	31	21	21	1
26	2	7	4	23	36	43	39	35	28	26	16	0
27	8	12	4	26	34	44	39	27	33	28	14	3
28	1	6	12	28	33	46	36	28	32	19	11	10
29	8		18	22	33	44	37	35	29	15	7	8
30	21		17	21	38	41	38	29	22	15	1	7
31	23		14		37		38	35		22		0
Total	198	180	283	746	926	1141	1259	1108	964	801	392	124

Table 44. Growing Degree Days for 1969 - Base 45°

Date	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	0	20	0	18	20	33	38	35	32	22	20	3
2	0	20	0	20	21	30	38	33	32	23	12	1
3	1	1	0	25	21	24	38	29	32	24	7	2
4	0	0	0	24	23	23	39	28	33	27	3	0
5	0	0	0	21	24	25	39	29	34	27	1	0
6	0	3	0	22	28	29	39	31	28	23	7	1
7	0	10	1	18	29	32	41	33	33	26	15	1
8	2	9	8	19	29	35	40	35	33	24	21	0
9	3	0	0	23	16	35	39	36	30	24	14	0
10	0	0	0	18	15	34	38	33	20	25	13	0
11	0	3	0	22	14	31	37	32	20	27	13	4
12	0	1	0	24	20	33	31	31	24	29	14	0
13	0	0	0	21	24	35	36	30	24	27	2	0
14	0	0	0	18	18	35	35	29	25	16	0	6
15	0	0	5	27	19	34	36	30	29	17	0	1
16	4	0	3	25	27	30	35	33	31	25	0	0
17	6	0	7	26	25	30	32	36	32	15	9	0
18	13	0	11	22	22	30	32	32	35	15	19	0
19	13	0	14	12	28	33	35	37	27	24	0	4
20	4	2	15	15	30	30	34	38	27	32	0	0
21	2	3	14	17	31	30	35	36	18	24	5	0
22	2	0	12	20	32	34	35	29	20	20	5	0
23	9	0	11	16	33	37	35	23	25	11	12	0
24	7	1	22	12	31	38	35	28	25	7	16	0
25	0	2	0	16	30	38	35	28	26	16	16	0
26	0	2	0	18	31	38	34	30	23	21	11	0
27	3	7	0	21	29	39	34	22	28	23	9	0
28	0	1	7	23	28	41	31	23	27	14	6	5
29	3		13	17	28	39	32	30	24	10	2	13
30	16		12	16	33	36	33	24	17	10	0	12
31	18		9		32		33	30		17		0
Total	106	85	164	596	791	991	1104	953	814	645	252	53

Table 45. Growing Degree Days for 1969 - Base 50°

Date	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	0	15	0	13	15	28	33	30	27	17	15	0
2	0	15	0	15	16	25	33	28	27	18	7	0
3	0	0	0	20	16	19	33	24	27	19	2	0
4	0	0	0	19	18	18	34	23	28	22	0	0
5	0	0	0	16	19	20	34	24	29	22	0	0
6	0	0	0	17	23	24	34	26	23	18	2	0
7	0	5	0	13	24	27	36	28	28	21	10	0
8	0	4	3	14	24	30	35	30	28	19	16	0
9	0	0	0	18	11	30	34	31	25	19	9	0
10	0	0	0	13	10	29	33	28	15	20	8	0
11	0	0	0	17	9	26	32	27	15	22	8	0
12	0	0	0	19	15	28	26	26	19	24	9	0
13	0	0	0	16	19	30	31	25	19	22	0	0
14	0	0	0	13	13	30	30	24	20	11	0	1
15	0	0	0	22	14	29	31	25	24	12	0	0
16	0	0	0	20	22	25	30	28	26	20	0	0
17	1	0	2	21	20	25	27	31	27	10	4	0
18	8	0	6	17	17	25	27	27	30	10	14	0
19	8	0	9	7	23	28	30	32	22	19	0	0
20	0	0	10	10	25	25	29	33	22	27	0	0
21	0	0	9	12	26	25	30	31	13	19	0	0
22	0	0	7	15	27	29	30	24	15	15	0	0
23	4	0	6	11	28	32	30	18	20	6	7	0
24	2	0	17	7	26	33	30	23	20	2	11	0
25	0	0	0	11	25	33	30	23	21	11	11	0
26	0	0	0	13	26	33	29	25	18	17	6	0
27	0	2	0	16	24	34	29	17	23	18	4	0
28	0	0	2	18	23	36	26	18	22	9	1	0
29	0	0	8	12	23	34	27	25	19	5	0	8
30	11	0	7	11	28	31	28	19	12	5	0	7
31	13	0	4	0	27	0	28	25	0	12	0	0
Total	47	41	90	446	636	841	949	774	664	491	144	16

Table 46. Precipitation Accumulation and Departure from Average*

Date	Avg.	Avg. Acc.	1969	Acc. For 1969	Departure For Month	Departure For 1969
Jan.	4.80	4.80	2.94	2.94	- 1.86	- 1.86
Feb.	5.25	10.05	4.61	7.55	- 0.64	- 2.50
March	6.13	16.18	4.96	12.51	- 1.17	- 3.67
April	4.37	20.55	5.57	18.08	+ 1.20	- 2.47
May	3.55	24.10	7.42	25.50	+ 3.87	+ 1.40
June	4.06	28.16	4.24	29.74	+ 0.18	+ 1.58
July	5.34	33.50	4.71	34.45	- 0.63	+ 0.95
Aug.	4.71	38.21	3.63	38.08	- 1.08	- 0.13
Sept.	3.20	41.41	6.53	44.61	+ 3.33	+ 3.20
Oct.	2.58	43.99	.60	45.21	- 1.98	+ 1.22
Nov.	3.48	47.47	.62	45.83	- 2.86	- 1.64
Dec.	5.13	52.60	4.11	49.94	- 1.02	- 2.66

* Precipitation averages are based on data from 1855 through 1952.

