

# Weather Data Compiled for Blackstone, Virginia: 1949-2001



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## **Abstract**

Weather Data Compiled for Blackstone, Virginia: 1949-2001  
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Weather data recorded in Nottoway County, Virginia between 1949 and 2001 are presented and summarized. Data were recorded at the Virginia Tech Southern Piedmont Agricultural Research and Extension Center, Camp Pickett, and the Blackstone Army Airfield. Values for minimum, maximum, and average air temperatures were averaged over the 53-year period and reported on a daily and monthly basis. Daily and monthly precipitation amounts are also reported. Tables for low temperature probabilities, degree unit, and chilling-hour information are presented. Finally, information on hurricane frequency and severity and snowfall amounts for the state of Virginia is included.

The cover photo was captured August 9, 2002 at 11:19 AM. Source: Intellicast.com

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## **Introduction:**

Weather information is generally summarized on a 30-year basis, with information updated at 10-year intervals (keeping the summary to a thirty-year period by omitting older data in favor of newer data). Daily temperature means and extremes, and monthly rainfall amounts reflect this change, whereas the record high and low temperature information is retained. Further, official 30-year summaries are very specific in that the station must have been in continuous operation. Due to these constraints, "official" 30-year summaries are unavailable for the Blackstone area at this time.

For those who have requested weather data summaries, it is hoped that this bulletin may provide more immediate assistance. Current plans include the posting of data for the most current month with yearly summaries. New temperature records will be identified in bold type. Specific information is available in various formats depending on origin. Currently, additional information is being collected for daily relative humidity, wind speed and direction, and PAR (solar radiation).

## **Materials and Methods:**

The information contained in this document was compiled from data recorded at several locations from 1949 to the present. Official weather information for the Blackstone area began in May of 1945. The first weather station was at the Blackstone Army Air Field (BAAF) N037:05 latitude W077:57 longitude at elevation 446'. The station was closed at the end of July, and data collection began again in December 1972 at a new location, designated Camp Pickett (CP). This station, located at N037:02:12 W077:57:52 (approximately 5.5 miles further south) and at elevation 333' continues to operate at this time. The final location for data presented is VPI&SU Southern Piedmont Agricultural Research and Extension Center (SPAREC) with continuous records beginning in 1977. The Southern Piedmont data collection area is approximately 0.4 miles north of the BAAF station, at a similar elevation.

Data presented in this document reflect records from BAAF (January 1949 to July 1972), CP (December 1972-December 1976), and SPAREC (January 1977 to December 2001). Data from BAAF and CP were obtained from the Office of the State Climatologist in a data base file format. SPAREC data from 1977 through March 1993 was transcribed from hand-written records collected by W. B. Wilkinson III and staff. Beginning in April of 1993, information was collected electronically by a weather station located near the SPAREC central offices.

Prior to April 1993, maximum and minimum temperatures were read from hygrothermograph charts to the nearest 0.5° F and average daily temperature was calculated as the average of the maximum and minimum recorded temperatures. Rainfall amounts were read five days per week from a gauge located in an enclosure adjacent to the field operations building. Subsequently, electronic stations collected temperatures at preset intervals throughout the day to the nearest 0.01°, and the average daily temperature became the average of all recorded readings. Rainfall data were recorded electronically at the same intervals with a tipping bucket gauge.

Summary data included in this bulletin were generated with the use of SAS System. Low temperature probabilities required the calculation of the mean Julian date of the threshold and its associated standard deviation. The mean date is the 50% threshold. Days were added or subtracted as appropriate by multiplying standard deviations by the associated normal probability value. Snowfall information was extracted from station climatologies linked to the Virginia State Climatology Office website (<http://climate.virginia.edu>). Hurricane data were obtained from a Unisys website (<http://weather.unisys.com/hurricane/index.html>).

## **Results and Discussion:**

In the construction of this document, several decisions were made. It is hoped that the informal format chosen will serve both the casual reader and professionals seeking reliable data. Missing data totaled approximately 0.6% from August through November of 1972. As stated, there were years of overlapping data available. It is believed that the records taken at Southern Piedmont Agricultural Research and Extension Center (SPAREC) more closely match data obtained at the Blackstone Army Air Field primarily due not only proximity but also similarity in elevation. Data collected at SPAREC were used instead of the data recorded at the Camp Pickett Station.

When comparing data from the Camp Pickett site and that collected at SPAREC, there was a very good correlation with daily maximum temperatures. Daily minimum temperatures were consistently lower at the CP station. Comparisons of SPAREC and BAAF 'freeze' probabilities with those of CP show a difference of 10 days or more with CP data indicating much cooler spring and fall average temperatures. Rainfall events correlated well, but the actual amounts of precipitation varied considerably, especially during highly localized summer events. The most striking example occurred in 1992 when yearly rainfall totals at CP were 8.5 inches greater than those recorded at SPAREC.

Currently, in addition to temperature and rainfall, records available from SPAREC include relative humidity, wind speed and direction, and photosynthetically active radiation. These data have been collected since April of 1993 but are not included in this document. Weather data are summarized monthly and annual reports are issued.

## **Literature Cited:**

SAS Institute. 2000. The SAS System for Windows. Release 8.0. SAS Inst., Cary, NC.

Unisys [Online]. 2001 Available at <http://weather.unisys.com/hurricane/index.html> (verified August 2, 2002).

University of Virginia. 2001 Virginia State Climatology Office. [Online]. Available at <http://www.climate.virginia.edu> (verified June 28, 2002).

## **Acknowledgements:**

We are indebted to Steve Gawtry of the Virginia State Climatologist's Office in Charlottesville for his assistance in obtaining the government records at BAAF and Fort Pickett and for his assistance in calculations of low temperature probability data for our area. The suggestions and editorial advice of the faculty at the SPAREC, especially Dr. Carol Wilkinson, were invaluable in preparing this document.

# January

Average Temperature: 37.6°F

Average Daily Minimum: 27.9°F

Driest January: 0.60" (1981)

Record Low: -8.0°F (1/21/85)

Highest Low Temperature: 63°F (1/07/98)

Average Precipitation: 3.43"

Average Daily Maximum: 47.7°F

Wettest January: 8.05" (1978)

Record High: 79 °F (1/02/52)

Lowest High Temperature: 10°F (1/10/82)

## Average Daily Temperatures (°F)

<u>Day</u>	<u>Low</u>	<u>High</u>	<u>Avg.</u>	<u>Day</u>	<u>Low</u>	<u>High</u>	<u>Avg.</u>
1	31.4	48.7	39.8	17	25.3	45.9	35.4
2	29.9	49.6	39.7	18	27.8	47.0	37.4
3	29.6	50.0	39.6	19	26.8	45.3	36.0
4	29.5	48.5	38.7	20	27.3	47.0	37.0
5	27.4	47.4	37.1	21	26.1	46.7	36.1
6	28.7	48.0	38.3	22	26.7	48.4	37.3
7	29.8	48.1	38.8	23	28.7	49.2	38.7
8	27.4	45.0	36.1	24	28.8	49.6	39.2
9	26.1	45.2	35.5	25	30.1	50.2	39.8
10	26.1	45.7	35.6	26	29.7	49.8	39.6
11	26.2	45.9	35.7	27	28.7	49.9	39.4
12	26.1	45.4	35.6	28	27.4	48.6	38.0
13	26.7	47.6	36.8	29	27.7	49.3	38.3
14	27.0	47.2	36.9	30	28.2	48.7	38.4
15	28.3	46.9	37.5	31	27.5	47.2	37.3
16	26.4	47.4	36.8				

# February

Average Temperature: 40.2°F

Average Daily Minimum: 29.8°F

Driest February: 0.36" (1978)

Record Low: -9°F (2/10/79)

Highest Low Temperature: 58°F (2/24/75)

Average Precipitation: 3.32"

Average Daily Maximum: 51.0°F

Wettest February: 7.50" (1984)

Record High: 82.8°F (2/25/00)

Lowest High Temperature: 15°F (2/17/58)

## Average Daily Temperatures (°F)

<u>Day</u>	<u>Low</u>	<u>High</u>	<u>Avg.</u>	<u>Day</u>	<u>Low</u>	<u>High</u>	<u>Avg.</u>
1	28.0	49.7	38.5	16	30.9	51.3	41.0
2	29.8	48.3	38.9	17	30.1	50.3	40.2
3	27.5	47.8	37.4	18	30.2	50.3	40.1
4	27.7	46.7	37.0	19	32.5	53.9	43.1
5	27.7	47.9	37.6	20	32.6	53.4	42.8
6	28.1	49.1	38.3	21	30.6	53.9	42.1
7	28.9	48.4	38.4	22	31.6	54.4	42.8
8	27.0	47.8	37.3	23	32.2	53.9	43.0
9	27.8	48.1	37.9	24	32.7	53.9	43.2
10	27.4	50.2	38.7	25	31.3	53.9	42.4
11	27.9	50.2	39.0	26	31.1	52.6	41.6
12	27.2	48.1	37.6	27	30.7	54.7	42.7
13	26.7	47.7	37.0	28	33.6	55.7	44.6
14	29.5	52.8	41.0	29	30.4	53.9	42.0
15	31.6	52.7	41.9				

# March

Average Temperature: 47.4°F

Average Daily Minimum: 36.1°F

Driest March: 0.90" (1985)

Record Low: 10.0°F (3/03/80)

Highest Low Temperature: 64°F (3/07/56)

Average Precipitation: 3.92"

Average Daily Maximum: 58.9°F

Wettest March: 8.70" (1975)

Record High: 88.5°F (3/29/98)

Lowest High Temperature: 22°F (3/01/80)

## Average Daily Temperatures (°F)

<u>Day</u>	<u>Low</u>	<u>High</u>	<u>Avg.</u>	<u>Day</u>	<u>Low</u>	<u>High</u>	<u>Avg.</u>
1	32.6	54.3	43.4	17	34.9	60.0	47.5
2	33.7	55.9	44.7	18	35.3	56.7	45.8
3	34.1	55.7	44.8	19	35.4	56.2	45.7
4	34.1	54.9	44.3	20	35.8	59.2	47.4
5	36.4	58.9	47.5	21	38.0	58.5	48.2
6	36.4	58.2	47.3	22	36.2	59.3	47.7
7	34.5	55.4	44.9	23	35.7	60.9	48.2
8	33.1	57.0	45.1	24	37.3	62.2	49.7
9	33.6	55.6	44.6	25	37.4	61.4	49.4
10	33.3	56.3	44.6	26	37.8	61.5	49.9
11	33.2	56.7	44.8	27	37.6	62.5	50.0
12	35.0	58.3	46.6	28	38.8	62.6	50.7
13	36.4	57.7	47.0	29	40.8	65.1	52.8
14	36.1	59.6	47.7	30	43.1	64.8	53.8
15	36.1	58.2	47.0	31	41.3	63.3	52.1
16	34.7	57.9	46.3				

# April

Average Temperature: 57.5°F

Average Minimum Temperature: 45.2°F

Driest April: 0.15" (1985)

Record Low: 18°F (4/06/75)

Highest Low Temperature: 69°F (4/09/91)

Average Precipitation: 3.29"

Average Maximum Temperature: 69.8°F

Wettest April: 7.31" (2000)

Record High: 94.0°F (4/19/76)

Lowest High Temperature: 39°F (4/09/72)

## Average Daily Temperatures (°F)

<u>Day</u>	<u>Low</u>	<u>High</u>	<u>Avg.</u>	<u>Day</u>	<u>Low</u>	<u>High</u>	<u>Avg.</u>
1	41.7	65.4	53.5	16	44.6	69.7	57.2
2	41.9	68.6	55.2	17	44.6	70.2	57.3
3	42.9	67.7	55.4	18	46.6	71.3	59.1
4	43.6	67.9	55.6	19	47.6	72.3	59.7
5	42.1	65.2	53.7	20	47.4	72.9	60.3
6	42.0	64.6	53.4	21	46.9	73.6	60.1
7	41.6	67.2	54.5	22	48.7	72.5	60.7
8	42.0	68.0	55.0	23	49.5	74.3	61.8
9	42.8	66.7	54.8	24	49.0	74.6	61.7
10	42.0	65.8	53.7	25	48.1	72.9	60.6
11	41.9	66.0	54.0	26	48.6	73.4	61.0
12	43.3	69.0	56.2	27	48.7	71.9	60.2
13	42.8	66.2	54.6	28	48.2	71.2	59.8
14	43.7	68.0	55.8	29	47.8	72.5	59.8
15	46.0	69.4	57.7	30	49.5	73.9	61.7

# May

Average Temperature: 65.7°F

Average Daily Minimum: 54.1°F

Driest May: 0.87" (1965)

Record Low: 31°F (5/09/76)

Highest Low Temperature: 76°F (5/28/91)

Average Precipitation: 3.72"

Average Daily Maximum: 77.2°F

Wettest May: 10.30" (1971)

Record High: 96.0°F (5/31/91)

Lowest High Temperature: 47°F (5/07/92)

## Average Daily Temperatures (°F)

<u>Day</u>	<u>Low</u>	<u>High</u>	<u>Avg.</u>	<u>Day</u>	<u>Low</u>	<u>High</u>	<u>Avg.</u>
1	50.3	75.4	62.9	17	54.6	77.7	66.1
2	50.3	74.3	62.3	18	55.9	79.2	67.4
3	50.0	75.1	62.5	19	55.9	78.8	67.4
4	50.0	74.2	62.0	20	56.8	77.1	66.8
5	49.4	75.3	62.4	21	56.1	78.5	67.3
6	51.1	75.7	63.4	22	55.5	79.3	67.4
7	51.8	75.8	63.7	23	58.2	80.7	69.5
8	50.6	75.8	63.2	24	57.9	80.2	69.2
9	50.2	74.6	62.3	25	57.8	79.7	68.6
10	52.1	76.6	64.2	26	57.4	78.1	67.6
11	52.8	77.0	64.9	27	56.2	76.0	66.0
12	53.5	76.8	65.2	28	55.9	76.6	66.3
13	53.2	76.0	64.6	29	57.0	78.7	67.7
14	53.6	76.1	64.7	30	57.9	79.7	68.8
15	53.9	77.1	65.5	31	58.9	81.1	70.1
16	53.7	76.8	65.3				

# June

Average Temperature: 73.4°F  
Average Daily Minimum: 62.6°F  
Lowest Avg. Temperature: 70.2° (1979)  
Driest June: 0.45" (1990)  
Record Low: 39.0°F (6/08/77)  
Highest Low Temperature: 78°F (6/16/80)

Average Precipitation: 3.96"  
Average Daily Maximum: 84.4°F  
Highest Avg. Temperature: 76.9°F (1984)  
Wettest June: 10.42" (1972)  
Record High: 102.0°F (6/23/52)  
Lowest High Temperature: 58°F (6/16/65)

## Average Daily Temperatures (°F)

<u>Day</u>	<u>Low</u>	<u>High</u>	<u>Avg.</u>	<u>Day</u>	<u>Low</u>	<u>High</u>	<u>Avg.</u>
1	59.9	81.9	70.9	16	62.8	84.0	73.2
2	59.4	81.9	70.8	17	63.0	83.6	73.2
3	59.5	80.6	69.9	18	62.4	83.1	72.6
4	58.4	79.8	69.0	19	63.4	84.7	74.0
5	58.0	81.4	69.6	20	64.1	85.9	74.9
6	59.8	83.1	71.3	21	64.5	85.7	75.0
7	61.3	84.0	72.6	22	64.5	85.8	75.0
8	61.3	84.2	72.7	23	65.1	86.8	75.7
9	62.0	83.1	72.4	24	64.6	86.3	75.4
10	62.3	84.0	73.0	25	64.8	86.5	75.6
11	61.5	83.6	72.5	26	64.9	86.7	75.8
12	61.7	84.0	72.6	27	65.0	87.2	75.9
13	62.8	84.7	73.6	28	64.7	86.7	75.5
14	62.0	84.7	73.3	29	65.2	86.9	75.9
15	62.3	83.9	73.0	30	65.5	87.7	76.3

# July

Average Temperature: 77.4°F

Average Daily Minimum: 67.1°F

Driest July: 0.41" (1977)

Record Low: 48.0°F (7/02/75)

Highest Low Temperature: 80°F (7/23/91)

Average Precipitation: 4.64"

Average Daily Maximum: 88.1°F

Wettest July: 11.96" (1959)

Record High: 103.1°F (7/22/98)

Lowest High Temperature: 68°F (7/04/76)

## Average Daily Temperatures (°F)

<u>Day</u>	<u>Low</u>	<u>High</u>	<u>Avg.</u>	<u>Day</u>	<u>Low</u>	<u>High</u>	<u>Avg.</u>
1	66.2	86.7	76.2	17	67.7	88.6	78.0
2	65.1	86.9	75.9	18	67.9	89.4	78.5
3	65.9	88.1	76.9	19	68.1	89.9	78.9
4	66.9	88.0	77.2	20	68.9	89.6	79.1
5	66.0	87.3	76.5	21	68.2	89.2	78.5
6	65.5	86.9	76.1	22	68.2	89.5	78.5
7	65.1	88.0	76.5	23	68.9	89.3	78.7
8	65.8	87.4	76.4	24	67.7	87.6	77.4
9	66.8	88.2	77.4	25	68.1	88.1	77.8
10	67.0	87.3	77.2	26	67.8	87.9	77.6
11	66.5	87.6	76.9	27	67.3	87.9	77.5
12	66.1	86.3	76.1	28	68.1	88.8	78.3
13	66.4	87.1	76.6	29	67.6	87.3	77.2
14	67.4	88.2	77.7	30	66.7	87.8	77.1
15	67.6	88.2	77.8	31	67.4	87.9	77.5
16	68.2	88.9	78.3				

# August

Average Temperature: 76.0°F

Average Daily Minimum: 65.9°F

Driest August 0.47" (1976)

Record Low: 42.0°F (8/30/76)

Highest Low Temperature: 77°F (8/07/00)

Average Precipitation: 4.03"

Average Daily Maximum: 86.6°F

Wettest August: 10.09" (1955)

Record High: 103.3°F (8/01/99)

Lowest High Temperature: 62°F (8/21/56)

## Average Daily Temperatures (°F)

<u>Day</u>	<u>Low</u>	<u>High</u>	<u>Avg.</u>	<u>Day</u>	<u>Low</u>	<u>High</u>	<u>Avg.</u>
1	67.3	88.9	77.9	17	67.4	87.3	77.2
2	66.9	88.2	77.3	18	66.7	86.9	76.7
3	67.1	88.0	77.4	19	65.4	85.2	75.3
4	67.3	87.0	76.8	20	65.0	85.3	75.0
5	66.8	87.8	77.1	21	64.3	85.4	74.7
6	66.3	86.3	76.0	22	64.7	84.6	74.4
7	66.3	86.5	76.3	23	64.4	85.2	74.6
8	66.6	87.7	76.9	24	63.8	85.8	74.6
9	67.3	87.4	77.1	25	63.6	84.6	73.8
10	67.1	87.0	76.8	26	64.2	85.6	74.6
11	66.7	87.2	76.6	27	65.5	86.5	75.6
12	66.0	86.2	75.9	28	65.8	86.7	75.9
13	65.5	85.3	75.2	29	64.9	87.3	75.7
14	66.4	86.9	76.3	30	64.3	86.9	75.4
15	66.3	86.8	76.3	31	64.8	86.7	75.5
16	66.8	87.7	77.0				

# September

Average Temperature: 69.4°F

Average Daily Minimum: 58.9°F

Driest September: 0.43" (1970)

Record Low: 35.0°F (9/24/74)

Highest Low Temperature: 76°F (9/17/91)

Average Precipitation: 3.70"

Average Daily Maximum: 80.4°F

Wettest September: 13.78" (1999)

Record High: 104°F (9/06/54)

Lowest High Temperature: 52°F (9/28/84)

## Average Daily Temperatures (°F)

<u>Day</u>	<u>Low</u>	<u>High</u>	<u>Avg.</u>	<u>Day</u>	<u>Low</u>	<u>High</u>	<u>Avg.</u>
1	64.4	86.4	75.0	16	58.5	79.4	68.8
2	63.8	85.4	74.4	17	58.7	79.6	68.9
3	64.3	84.2	74.1	18	58.3	79.0	68.4
4	63.9	84.1	73.7	19	58.6	80.2	69.0
5	63.3	83.6	73.2	20	59.8	79.9	69.6
6	62.8	83.0	72.7	21	59.0	80.5	69.6
7	61.5	84.1	72.7	22	57.9	78.3	67.8
8	60.4	82.1	71.1	23	54.9	77.7	66.2
9	60.5	82.7	71.4	24	53.3	75.6	64.3
10	61.3	83.9	72.4	25	54.1	75.0	64.3
11	59.3	82.5	70.7	26	55.1	76.3	65.5
12	59.1	82.2	70.5	27	54.7	76.1	65.2
13	58.6	82.2	70.2	28	54.4	75.4	64.7
14	59.4	81.7	70.4	29	53.7	74.5	63.8
15	59.7	81.2	70.3	30	53.7	75.0	64.1

# October

Average Temperature: 58.7°F

Average Daily Minimum: 47.3°F

Driest October: 0.09" (2000)

Record Low: 20.0°F (10/27/62)

Highest Low Temperature: 71°F (10/09/59)

Average Precipitation: 3.29"

Average Daily Maximum: 70.7°F

Wettest October: 13.23" (1971)

Record High: 95°F (10/06/54)

Lowest High Temperature: 44°F (10/11/79)

## Average Daily Temperatures (°F)

<u>Day</u>	<u>Low</u>	<u>High</u>	<u>Avg.</u>	<u>Day</u>	<u>Low</u>	<u>High</u>	<u>Avg.</u>
1	54.0	75.0	64.3	17	47.9	70.3	58.8
2	54.3	75.7	64.6	18	46.2	70.2	58.0
3	52.3	75.2	63.7	19	45.8	68.0	56.7
4	52.2	73.3	62.4	20	44.3	67.2	55.5
5	51.2	73.7	62.4	21	44.1	67.9	55.7
6	50.0	74.0	61.8	22	44.8	68.4	56.3
7	48.6	72.3	60.2	23	45.1	69.9	57.1
8	48.7	71.8	60.0	24	44.5	69.3	56.6
9	49.9	72.9	61.1	25	43.9	66.7	54.9
10	48.9	72.2	60.3	26	43.3	66.2	54.5
11	48.4	71.6	59.6	27	44.1	67.7	55.5
12	47.7	71.9	59.3	28	43.5	67.2	55.1
13	47.5	72.2	59.6	29	42.2	66.1	53.9
14	48.6	73.4	60.7	30	42.7	66.5	54.3
15	47.3	73.3	60.0	31	44.2	67.1	55.4
16	48.7	73.4	60.6				

# November

Average Temperature: 49.2°F

Average Daily Minimum: 38.2°F

Driest November: 0.48" (1965)

Record Low: 13.0°F (11/27/74)

Highest Low Temperature: 66°F (11/02/71)

Average Precipitation: 3.03"

Average Daily Maximum: 60.8°F

Wettest November: 11.95" (1985)

Record High: 86°F (11/01/50)

Lowest High Temperature: 31°F (11/24/56)

## Average Daily Temperatures (°F)

<u>Day</u>	<u>Low</u>	<u>High</u>	<u>Avg.</u>	<u>Day</u>	<u>Low</u>	<u>High</u>	<u>Avg.</u>
1	45.2	68.2	56.5	16	40.1	62.8	51.2
2	45.4	67.1	56.2	17	38.4	61.5	49.7
3	43.5	67.1	55.1	18	37.2	60.4	48.5
4	41.3	64.9	53.0	19	37.5	60.0	48.6
5	40.8	62.4	51.5	20	37.8	60.5	48.9
6	38.8	62.1	50.3	21	35.4	58.1	46.6
7	38.7	61.5	49.9	22	34.8	58.3	46.1
8	38.2	62.6	50.2	23	35.3	58.3	46.5
9	38.5	62.8	50.3	24	36.6	57.0	46.7
10	39.3	61.5	50.3	25	35.5	56.7	45.9
11	37.9	61.1	49.4	26	35.7	59.3	47.4
12	38.6	60.5	49.0	27	38.3	58.9	48.3
13	37.4	60.9	48.8	28	37.8	58.4	48.0
14	38.9	61.9	50.3	29	34.8	56.1	45.3
15	38.8	62.8	50.5	30	32.3	52.1	41.9

# December

Average Temperature: 40.4°F

Average Daily Minimum: 30.5°F

Driest December 0.30" (1980)

Record Low: 2.0°F (12/13/62)

Highest Low Temperature: 64°F (12/09/78)

Average Precipitation: 3.16"

Average Daily Maximum: 50.6°F

Wettest December: 6.72" (1981)

Record High: 82.6°F (12/06/98)

Lowest High Temperature: 16°F (12/25/83)

## Average Daily Temperatures (°F)

<u>Day</u>	<u>Low</u>	<u>High</u>	<u>Avg.</u>	<u>Day</u>	<u>Low</u>	<u>High</u>	<u>Avg.</u>
1	32.0	52.9	42.2	17	29.7	51.2	40.1
2	31.5	55.4	43.2	18	28.3	49.1	38.6
3	33.1	55.3	44.0	19	28.1	48.1	37.9
4	34.5	56.4	45.1	20	28.7	47.0	37.7
5	33.8	55.5	44.7	21	29.5	47.3	38.1
6	33.6	56.4	44.7	22	28.5	47.7	38.0
7	33.3	55.8	44.2	23	29.2	49.5	39.0
8	33.4	54.6	43.6	24	30.2	49.5	39.7
9	32.5	52.0	42.1	25	28.3	46.5	37.2
10	31.6	50.6	41.1	26	26.6	48.8	37.5
11	29.9	49.7	39.7	27	27.9	47.9	37.5
12	31.6	49.6	40.5	28	29.3	46.9	38.0
13	32.3	50.5	41.3	29	29.9	49.1	39.3
14	30.9	50.1	40.4	30	29.3	49.2	38.9
15	30.1	49.8	39.7	31	29.6	48.8	39.1
16	29.9	48.6	39.0				

## Temperature (°F) Extremes 1st Quarter

Day	January		February		March	
	Low Year	High Year	Low Year	High Year	Low Year	High Year
1	14.0 1977	78.0 1953	8.0 1965	73.0 1981	12.0 1980	78.0 1972
2	11.0 1977	79.0 1952	9.0 1971	77.0 1989	14.0 1980	79.0 1992
3	12.0 1977	75.0 1997	8.0 1978	80.0 1989	10.0 1980	82.0 1992
4	8.0 1979	77.0 1997	4.6 1996	72.0 1962	15.4 1996	82.0 1976
5	4.0 1981	74.0 1950	-0.4 1996	77.0 1991	13.0 1960	81.0 1976
6	9.0 1959	73.0 1950	7.2 1995	67.3 1999	12.0 1960	81.0 1976
7	10.0 1988	68.4 1998	8.0 1988	67.0 1963	17.0 1960	81.0 1961
8	5.0 1970	70.2 1998	6.0 1977	71.0 1965	12.0 1986	87.6 2000
9	1.0 1970	70.0 1965	6.0 1977	71.2 2001	12.2 1996	86.0 1974
10	0.0 1973	77.9 2000	-9.0 1979	73.0 1999	12.6 1996	82.2 2000
11	1.0 1962	70.0 1963	3.0 1979	70.5 1999	17.0 1960	81.0 1990
12	6.0 1981	71.0 1974	8.0 1968	75.0 1984	18.0 1998	85.0 1990
13	1.0 1981	74.0 1960	6.0 1973	75.0 1951	17.4 1998	86.0 1990
14	3.0 1977	73.0 1995	10.0 1973	78.0 1951	16.0 1960	84.0 1990
15	5.5 1994	74.1 1996	13.0 1979	80.0 1989	14.0 1993	85.0 1973
16	0.1 1994	72.0 1953	8.0 1963	71.0 1954	15.0 1979	82.4 1995
17	-1.0 1972	70.0 1990	5.0 1958	75.0 1976	17.0 1979	84.0 1982
18	-1.0 1977	70.0 1974	-3.0 1973	78.0 1976	15.0 1967	79.0 1989
19	-1.1 1994	71.0 1951	8.0 1973	74.0 1961	16.0 1967	73.0 1977
20	-4.0 1985	75.0 1951	4.0 1979	74.8 1994	23.0 1981	80.0 1968
21	-8.0 1985	71.0 1959	7.0 1979	71.8 1997	18.0 1965	86.0 1968
22	5.0 1970	71.0 1967	7.0 1968	72.0 1955	19.0 1986	84.0 1968
23	9.0 1977	74.7 1999	10.0 1963	72.0 1985	21.0 1960	81.0 1966
24	7.0 1963	75.0 1974	15.0 1973	78.0 1985	22.0 1992	80.6 1994
25	10.0 1961	77.0 1950	7.0 1967	82.8 2000	22.0 1956	82.0 1959
26	10.0 1968	79.0 1950	9.0 1967	81.3 1996	20.0 1974	78.0 1959
27	3.0 1961	71.0 1954	8.0 1963	82.0 1977	19.6 2001	84.0 1949
28	6.1 2000	77.4 1999	12.0 1974	76.1 1996	21.0 1982	82.0 1960
29	6.0 1963	77.0 1970	22.0 1980	78.0 1976	20.0 1966	88.5 1985
30	8.0 1966	78.0 1975			25.0 1964	86.0 1998
31	5.0 1966	67.5 2001			22.0 1964	86.0 1986

## Temperature (°F) Extremes 2nd Quarter

Day	April		May		June	
	Low Year	High Year	Low Year	High Year	Low Year	High Year
1	24.0 1987	84.0 1986	35.0 1977	90.0 1974	45.0 1966	96.0 1991
2	28.0 1989	88.0 1967	31.0 1978	88.0 1965	44.0 1967	99.0 1951
3	27.0 1992	89.0 1963	31.0 1978	91.0 1965	48.0 1949	94.0 1980
4	28.0 1992	86.9 1999	32.0 1986	90.0 1965	45.0 1988	93.0 1951
5	24.0 1975	81.0 1978	33.1 1996	90.0 1955	44.1 1997	90.0 1953
6	18.0 1975	85.0 1967	31.6 1996	94.0 1950	40.0 1976	94.0 1952
7	24.0 1977	88.3 2001	35.0 1970	91.0 1959	44.0 1976	96.3 1999
8	27.0 1974	87.6 2001	34.0 1974	91.0 1964	39.0 1977	99.0 1999
9	23.0 1972	91.0 2001	31.0 1976	93.0 1963	46.0 1977	98.6 1999
10	20.0 1985	88.1 2001	35.0 1966	91.0 1963	48.0 1988	97.2 1993
11	28.0 1974	86.0 1992	34.0 1966	90.6 2001	42.0 1972	97.0 1993
12	24.0 1973	88.0 1977	39.0 1969	90.0 1953	45.0 1979	97.0 2000
13	25.0 1973	88.0 1977	40.0 1989	92.0 1970	48.0 1980	95.0 1954
14	24.0 1973	88.0 1977	42.4 1994	92.0 1956	45.0 1985	96.6 1994
15	28.0 1950	88.0 1977	41.0 1959	90.0 1957	43.0 1979	99.5 1994
16	28.0 1962	87.0 1950	34.0 1984	92.8 1998	43.0 1979	97.0 1991
17	29.0 1979	90.0 1976	38.0 1984	88.0 1960	50.0 1959	93.0 1970
18	30.0 1979	92.0 1989	33.0 1973	92.0 1987	47.0 1974	98.0 1970
19	30.0 1990	94.0 1976	41.0 1976	94.3 1962	49.0 1959	97.2 1994
20	31.0 1953	92.0 1985	42.0 1976	95.0 1996	49.0 1979	97.9 1993
21	32.0 1953	93.0 1985	40.0 1950	93.0 1960	50.0 1979	97.0 1988
22	33.0 1978	92.0 1985	40.1 1997	90.0 1975	40.0 1972	99.0 1988
23	30.0 1986	91.0 1985	42.4 1997	92.5 1994	52.3 1999	100.0 1988
24	34.0 1974	92.0 1960	43.0 1963	93.0 1970	50.0 1972	98.0 1960
25	31.0 1956	91.0 1960	40.0 1967	92.1 1995	50.0 1979	99.0 1952
26	31.0 1974	93.0 1960	41.0 1988	92.0 1953	45.0 1979	102.0 1952
27	30.0 1976	92.0 1990	41.0 1961	92.0 1991	47.0 1979	101.0 1952
28	29.0 1976	90.0 1957	39.0 1961	90.0 1967	47.0 1979	100.0 1959
29	32.0 1973	90.1 1994	39.4 1989	94.0 1991	53.0 1979	99.0 1959
30	33.0 1961	91.0 1974	46.0 1996	95.0 1991	55.0 1974	100.0 1959
31			42.4 1996	96.0 1991		

## Temperature (°F) Extremes 3rd Quarter

Day	July		August		September	
	Low Year	High Year	Low Year	High Year	Low Year	High Year
1	51.0 1988	100.0 1954	57.2 1997	103.3 1999	42.0 1976	102.0 1953
2	48.0 1975	98.0 1956	57.0 1992	98.8 1993	50.0 1976	98.1 1993
3	51.0 1975	98.0 1983	54.0 1985	101.0 1987	46.0 1967	96.0 1954
4	52.7 1996	99.3 1999	53.0 1976	98.0 1980	50.5 1997	96.0 1953
5	52.0 1979	101.7 1999	55.0 1976	98.0 1980	49.3 1997	100.0 1954
6	48.0 1979	101.1 1999	54.9 1994	98.0 1977	53.0 1950	104.0 1954
7	48.0 1979	101.0 1977	52.9 1994	100.0 1977	42.0 1976	103.0 1954
8	50.0 1979	101.8 1993	53.6 1994	99.7 1999	45.0 1976	98.0 1954
9	54.0 1979	101.8 1993	55.0 1975	100.0 1980	46.0 1986	95.2 1995
10	56.0 1951	101.1 1993	52.2 1995	96.2 2001	45.0 1956	96.0 1983
11	53.0 1963	100.0 1993	55.0 1962	99.5 1999	38.0 1976	100.0 1983
12	54.0 1973	99.3 1993	53.0 1954	99.5 1995	42.0 1976	98.0 1983
13	52.0 1978	100.0 1992	52.0 1979	102.4 1995	44.0 1985	94.5 1998
14	54.0 1976	102.0 1954	52.0 1979	102.2 1995	40.0 1985	96.0 1952
15	58.0 1987	98.4 1995	55.0 1979	97.0 1988	40.0 1975	94.5 1994
16	60.0 1960	102.0 1988	49.0 1979	99.0 1954	42.0 1975	94.0 1970
17	59.0 1970	99.0 1988	49.0 1979	99.1 1997	42.0 1966	95.0 1991
18	56.0 1973	100.0 1988	48.0 1979	100.0 1988	42.0 1990	93.0 1970
19	54.0 1960	97.0 1977	47.0 1976	97.0 1965	44.0 1959	93.0 1954
20	58.0 1976	99.7 1998	52.0 1998	102.0 1983	47.0 1959	92.0 1978
21	55.0 1966	100.0 1998	53.0 1981	98.0 1983	40.0 1956	94.0 1980
22	54.0 1974	103.1 1998	53.4 2000	103.0 1983	41.0 1976	94.0 1970
23	55.0 1974	101.0 1952	55.6 1994	97.9 1998	39.0 1976	93.0 1970
24	53.0 1977	102.2 1999	50.0 1952	98.2 1998	35.0 1974	90.0 1984
25	51.0 1973	99.1 1993	53.0 1952	99.3 1998	37.0 1974	90.0 1970
26	54.0 1976	98.0 1949	54.0 1952	97.0 1954	42.0 1950	92.5 1998
27	51.0 1962	99.0 1966	55.0 1977	99.0 1983	43.0 1974	95.0 1998
28	48.0 1977	102.4 1993	48.0 1986	100.0 1993	40.0 1989	93.0 1998
29	49.0 1977	103.0 1952	43.0 1986	102.7 1993	42.0 1951	90.0 1954
30	52.0 1977	103.0 1953	44.0 1986	100.0 1953	38.3 1993	91.0 1973
31	55.9 1997	101.7 1999	42.0 1976	100.0 1953		

## Temperature (°F) Extremes 4th Quarter

Day	October		November		December	
	Low Year	High Year	Low Year	High Year	Low Year	High Year
1	35.2 1993	91.0 1954	24.0 1975	86.0 1950	10.0 1976	79.0 1998
2	38.0 1974	92.8 1995	24.0 1976	86.0 1974	10.0 1976	76.6 1995
3	29.0 1974	93.0 1954	25.0 1976	85.0 1974	15.0 1979	74.3 1991
4	25.0 1974	94.0 1954	26.0 1966	84.0 1974	12.0 1976	81.3 1998
5	25.0 1974	94.0 1954	24.1 1995	83.0 1974	12.0 1976	78.2 2001
6	32.0 1974	95.0 1954	24.0 1967	82.0 1975	16.0 1974	82.6 1998
7	34.0 1966	89.4 1997	23.0 1967	81.0 1975	9.0 1954	82.4 1998
8	35.0 1954	88.0 1962	22.0 1967	77.0 1978	12.0 1977	79.5 1998
9	30.0 1978	86.0 1990	15.0 1995	72.4 1994	14.0 1977	79.0 1978
10	29.0 1978	90.0 1997	16.0 1973	80.0 1975	16.0 1976	72.0 1978
11	30.0 1964	87.0 1954	16.0 1973	80.0 1949	10.0 1977	70.0 1972
12	33.0 1964	87.1 1995	20.0 1973	79.0 1949	8.0 1962	71.0 1985
13	28.0 1988	92.0 1954	19.0 1976	84.7 1994	2.0 1962	74.0 1956
14	29.0 1988	86.2 2000	16.0 1986	80.2 1999	14.0 1986	74.0 2001
15	30.0 1979	87.0 1992	21.0 1977	85.8 1993	11.0 1958	80.1 1995
16	30.0 1979	87.3 2000	17.0 1967	84.0 1955	10.0 1958	72.0 1971
17	31.0 1970	82.0 1958	23.5 1996	75.0 1963	10.0 1989	78.0 1971
18	28.0 1977	84.0 1984	19.0 1959	78.0 1985	5.0 1973	72.0 1984
19	26.0 1976	85.0 1991	21.0 1951	77.0 1953	8.0 1973	71.0 1967
20	26.0 1976	89.0 1984	19.0 1951	75.0 1979	10.0 1973	65.8 1997
21	23.0 1974	85.0 1984	18.0 1951	76.0 1979	9.0 1963	69.0 1956
22	23.0 1974	87.8 2001	17.0 1964	79.2 1999	5.0 1989	71.0 1949
23	24.0 1974	84.9 2001	19.0 1971	75.4 1999	5.0 2000	70.0 1990
24	26.0 1976	88.5 2001	16.0 1970	77.0 1979	7.0 1983	69.0 1988
25	27.0 1978	81.0 1994	14.0 1950	78.0 1973	4.0 1983	75.0 1955
26	27.0 1962	84.0 1984	14.0 1950	78.0 1973	5.0 1983	76.0 1982
27	20.0 1962	84.0 1984	13.0 1974	75.0 1985	9.0 1977	70.0 1994
28	27.0 1976	86.0 1984	14.0 1974	80.0 1973	10.0 1977	74.0 1984
29	22.0 1976	85.0 1984	16.0 1955	79.5 1998	11.0 1977	74.0 1984
30	23.0 1976	84.0 1961	16.0 1976	75.7 1998	13.0 1976	76.8 1996
31	29.0 1968	85.0 1950			9.0 1983	72.0 1999

## Monthly Precipitation (in.) for the Last 50 Years

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1952	5.62	3.31	5.23	5.45	2.39	2.21	3.24	5.97	0.99	2.18	6.44	3.45	46.48
1953	3.43	3.08	2.99	3.86	2.53	5.10	1.99	1.12	3.75	1.52	0.99	4.09	34.45
1954	4.76	1.82	3.29	3.33	5.55	2.62	2.01	2.92	0.68	3.43	2.41	2.66	35.48
1955	1.45	4.05	3.45	4.05	3.21	5.41	7.92	10.09	8.90	3.99	2.36	1.15	56.03
1956	1.60	4.55	2.79	3.55	2.25	3.85	5.93	6.32	3.67	6.47	2.34	3.05	46.37
1957	3.13	5.32	2.63	2.23	3.07	4.88	2.85	8.78	6.86	2.64	5.81	6.57	54.77
1958	3.29	4.10	4.57	5.70	4.80	5.71	2.51	6.62	1.60	3.21	1.64	4.24	47.99
1959	2.00	2.11	2.91	4.38	1.72	1.49	11.96	1.38	2.82	3.28	6.37	3.34	43.76
1960	1.89	5.59	3.13	4.27	5.10	0.96	6.40	5.16	4.48	3.08	0.61	2.31	42.98
1961	1.62	5.96	4.64	2.26	3.51	7.46	1.50	6.26	2.83	4.19	1.42	4.91	46.56
1962	6.42	3.53	6.16	3.69	3.91	8.05	5.66	5.14	3.93	0.57	5.78	2.02	54.86
1963	1.73	3.42	3.86	0.66	2.10	2.38	1.41	1.18	2.83	0.45	5.59	2.10	27.71
1964	3.59	4.70	2.15	2.82	2.16	1.63	6.61	4.64	2.37	4.57	2.03	2.78	40.05
1965	2.90	3.54	4.70	2.82	0.87	3.38	5.15	3.08	3.52	1.65	0.48	0.38	32.47
1966	4.73	4.40	1.48	1.45	3.18	6.15	3.91	3.25	4.64	4.58	1.11	4.14	43.02
1967	1.73	3.73	1.65	1.05	4.51	1.39	3.46	4.02	1.47	1.14	1.69	5.10	30.94
1968	1.78	1.11	3.71	3.22	4.89	4.02	4.54	3.22	1.16	1.94	3.53	2.67	35.79
1969	2.20	3.78	5.19	3.44	2.05	3.23	8.24	5.08	2.37	1.30	1.41	5.01	43.30
1970	1.41	3.09	3.42	2.82	1.51	3.75	5.87	2.85	0.43	3.77	3.44	2.15	34.51
1971	1.84	4.69	2.99	2.11	10.30	2.43	3.00	5.53	3.38	13.23	2.90	1.29	53.69
1972	1.86	4.63	2.09	3.87	5.63	10.42	4.86	.	.	.	.	3.79	.
1973	2.52	3.27	3.15	5.39	3.44	5.55	3.39	3.90	1.71	1.46	1.65	6.72	42.15
1974	4.97	2.71	3.96	1.65	4.74	5.02	5.42	5.05	5.38	0.61	1.32	4.08	44.91
1975	6.03	2.87	8.70	2.47	2.54	5.38	11.92	3.74	8.91	2.41	2.81	3.49	61.27
1976	3.99	1.70	2.20	0.99	3.28	4.22	3.37	0.47	6.39	7.43	1.65	3.41	39.10
1977	3.33	1.53	3.63	2.81	5.75	1.45	0.41	4.18	3.18	7.17	3.85	5.76	43.05
1978	8.05	0.36	6.13	5.92	3.82	3.15	7.11	5.71	3.49	1.64	4.04	4.47	53.89
1979	5.37	4.68	2.84	3.48	3.49	4.29	8.13	6.89	11.20	7.22	4.45	1.49	63.53
1980	5.10	1.50	4.30	2.75	4.75	0.50	6.60	1.40	1.05	4.15	2.80	0.30	35.20
1981	0.60	2.50	1.75	2.25	4.00	4.80	4.30	1.90	3.15	2.95	1.25	5.15	34.60
1982	3.65	4.05	3.10	1.95	5.80	4.65	4.40	4.90	2.85	3.95	3.55	3.40	46.25
1983	1.65	4.95	7.10	5.10	3.60	1.55	1.25	2.98	1.50	3.50	4.35	4.45	41.98
1984	4.30	7.50	7.55	3.40	4.45	2.70	7.80	3.80	1.45	1.75	3.55	1.95	50.20
1985	5.45	3.55	0.90	0.15	3.55	2.15	6.25	3.90	2.05	5.75	11.95	0.80	46.45
1986	2.25	2.55	1.80	1.40	3.15	1.15	2.00	7.90	0.80	3.00	1.95	5.12	33.07
1987	6.30	3.85	2.15	7.15	1.80	1.25	2.00	1.75	5.65	1.50	4.15	2.95	40.50
1988	2.65	2.07	1.80	2.45	2.85	2.85	4.25	1.95	2.20	4.05	4.55	0.75	32.42
1989	1.60	4.35	5.45	4.95	4.05	6.40	4.45	4.70	3.85	3.35	3.10	2.90	49.15
1990	3.10	2.65	2.25	3.55	6.40	0.45	2.45	6.45	0.70	2.25	1.80	2.95	35.00
1991	4.65	2.25	5.50	1.65	0.95	8.35	3.45	4.55	3.60	2.40	1.30	2.95	41.60
1992	2.80	2.77	4.70	2.60	5.15	2.35	3.85	3.95	2.55	2.30	2.30	3.00	38.32
1993	4.60	3.00	7.60	4.65	4.40	2.27	3.55	1.20	1.80	2.62	4.57	4.19	44.45
1994	3.48	4.29	8.56	3.47	3.00	4.24	5.84	2.69	3.25	3.02	3.72	0.81	46.37
1995	4.46	1.68	3.09	2.13	4.89	7.93	5.43	2.98	2.45	6.97	3.30	1.48	46.79
1996	3.35	2.64	3.58	4.04	3.88	2.74	5.96	5.66	11.50	7.08	4.64	4.21	59.28
1997	2.43	3.67	3.29	5.75	1.01	3.39	4.09	1.30	2.79	3.69	4.71	2.67	38.79
1998	6.90	6.36	7.46	4.82	3.83	2.48	0.79	3.47	5.55	0.98	0.90	4.99	48.53
1999	5.21	1.59	3.38	4.95	2.28	2.23	2.52	2.09	13.78	2.93	1.21	2.24	44.41
2000	4.73	1.65	3.25	7.31	3.52	5.84	4.05	2.76	4.46	0.09	1.81	3.00	42.47
2001	2.61	2.56	7.08	1.02	2.83	8.55	4.98	2.86	1.05	0.26	0.29	1.88	35.97
<b>Avg.</b>	<b>3.50</b>	<b>3.39</b>	<b>3.99</b>	<b>3.34</b>	<b>3.65</b>	<b>3.89</b>	<b>4.58</b>	<b>4.03</b>	<b>3.69</b>	<b>3.34</b>	<b>3.06</b>	<b>3.18</b>	<b>43.49</b>

## Frost/Freeze Probabilities

<b>SPRING TEMPERATURE PROBABILITIES</b>									
<u>Probability of Temperature occurring later than given date</u>									
<=====Probability Levels=====>									
Threshold	Earliest	95%	90%	75%	50%	25%	10%	5%	Latest
36 <sup>0</sup> F	3-Apr-91	5-Apr	9-Apr	16-Apr	24-Apr	1-May	8-May	12-May	18-May-73
32 <sup>0</sup> F	19-Mar-00	20-Mar	25-Mar	2-Apr	10-Apr	19-Apr	27-Apr	1-May	9-May-76
28 <sup>0</sup> F	27-Feb-91	9-Mar	13-Mar	20-Mar	27-Mar	4-Apr	11-Apr	15-Apr	16-Apr-62
24 <sup>0</sup> F	2-Feb-00	16-Feb	22-Feb	4-Mar	15-Mar	26-Mar	5-Apr	11-Apr	12-Apr-73
20 <sup>0</sup> F	19-Jan-97	31-Jan	7-Feb	18-Feb	3-Mar	16-Mar	27-Mar	3-Apr	29-Mar-66
16 <sup>0</sup> F	**	16-Jan	26-Feb	2-Feb	14-Feb	27-Feb	10-Mar	16-Mar	19-Mar-67

<b>FALL TEMPERATURE PROBABILITIES</b>									
<u>Probability of Temperature occurring earlier than given date</u>									
<=====Probability Levels=====>									
Threshold	Earliest	5%	10%	25%	50%	75%	90%	95%	Latest
36 <sup>0</sup> F	24-Sep-74	28-Sep	3-Oct	11-Oct	19-Oct	27-Oct	4-Nov	8-Nov	7-Nov-84
32 <sup>0</sup> F	3-Oct-74	8-Oct	13-Oct	21-Oct	30-Oct	8-Nov	16-Nov	20-Nov	2-Dec-85
28 <sup>0</sup> F	4-Oct-74	14-Oct	20-Oct	29-Oct	8-Nov	19-Nov	28-Nov	4-Dec	22-Dec-01
24 <sup>0</sup> F	21-Oct-74	29-Oct	4-Nov	13-Nov	24-Nov	5-Dec	14-Dec	20-Dec	**
20 <sup>0</sup> F	27-Oct-62	10-Nov	15-Nov	24-Nov	4-Dec	14-Dec	22-Dec	28-Dec	**
16 <sup>0</sup> F	9-Nov-76	21-Nov	26-Nov	3-Dec	12-Dec	21-Dec	29-Dec	-	**

Probability levels indicate that a minimum temperature below the threshold will occur on or after a given date with the stated frequency. For example, in the spring there is a 10% chance (one year in ten) that the minimum temperature of 28° or less will occur on or after April 11<sup>th</sup>. The columns labeled earliest and latest are unusual years in which the threshold temperature occurred much earlier or later than normal (50%). Be aware that temperatures of 36° (measured at 5-6 feet above ground level) can result in a frost at ground level and in depressions.

To use these tables as a planting guide:

Suppose you are transplanting squash that may be damaged with temperatures of 36° or less. Further, suppose that you want a good jump on the neighbors and are willing to accept the fact that the crop will survive only once in four years (25%). Trace across at 36° to the 25% column and find the planting date of April 17<sup>th</sup>.

## Degree Units to Selected Base Temperatures (°F)

### Growing Degree Units

Base		<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>Jun</u>	<u>Jul</u>	<u>Aug</u>	<u>Sep</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>
40	Monthly	94	119	265	523	795	1000	1158	1088	865	569	290	127
	Cumulative	94	212	477	1000	1795	2795	3953	5040	5906	6474	6764	6891
45	Monthly	46	61	161	380	640	850	1003	936	719	420	182	68
	Cumulative	46	107	268	647	1287	2137	3140	4077	4795	5216	5397	5465
50	Monthly	20	27	88	251	486	700	849	785	572	282	101	32
	Cumulative	20	47	135	386	871	1571	2420	3205	3777	4059	4160	4191
55	Monthly	7	10	42	149	338	550	694	634	426	166	46	13
	Cumulative	7	17	58	208	545	1095	1790	2424	2850	3016	3062	3075
60	Monthly	2	2	16	77	206	402	540	483	287	81	15	4
	Cumulative	2	4	20	98	304	706	1246	1729	2016	2097	2112	2116

To use the table, determine the base unit appropriate for the plant or crop (fruit trees = 40°F, cotton = 60°F). This base is the minimum temperature needed for growth. Within plant type, different varieties require different accumulated heat units in order to reach maturity prior to low temperatures and diminished day lengths in autumn.

Degree units are calculated as [Average Daily Temperature – Base] for each day of the month. The sum of these values is the monthly total shown. Cumulative values are a running total for the season, (Jan + Feb + ...). Values less than zero do not count against the total. For degree hour estimates, multiply the values by 24.

## Chilling Hours October 1st – May 15<sup>th</sup>

Base		<u>Oct</u>	<u>Nov</u>	<u>Dec</u>	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>
45	Monthly	14	250	528	619	422	345	53	0
	Cumulative	14	264	792	1411	1833	2178	2131	2131

Chilling hour requirements for deciduous plants are available by species/variety. Chilling hours indicate the amount of cold needed by the plant when in its winter dormancy (rest) period in order to resume normal spring growth. Chilling hours are applicable to fruit, nut, and berry crops among others.

Chilling hours in a day can be no more than 24 (indicating 24 hours of temperatures below 45°). The numbers above are conservative. Since hourly data were unavailable until 1994, sums were calculated using only days when the maximum temperature was less than the base of 45°. Chilling hour data for the years 1994 through 2001 are available upon request, but is in general agreement with the data above.

# Hurricanes in Virginia

## Hurricane Trivia:

1951-Present - In the past 50 years, only 33 hurricanes have had a significant impact on Virginia. Despite the potential for damaging winds and flooding, hurricanes and tropical storms are vital sources of water in late summer. Years when rainfall totals are well below normal are generally years when rainfall associated with tropical disturbances is absent. Historically, hurricanes were not named until 1953. All hurricane names were female until 1979 when male names were introduced. The Safir-Simpson scale (hurricanes categorized numerically by wind speed) was adopted in 1975. Some of the more significant hurricanes are noted below.

1954 - Virginia's first named hurricane and the latest in the season (Hazel - October 15<sup>th</sup>)  
Hurricane force damaging winds, but produced little rain in Blackstone.

1955 – Three storms recorded: Connie (8/12) 4.60”, Diane (8/17) 4.40” and Ione (9/19) 3.16”  
boost August/September rain totals to 19”

1959 – Cindy (7/13) : rainfall 3.99”.

1960 – Donna (9/10) passes east drops 3.04” of rain over 3 days.

1969 – Camille is the only named Category 5 hurricane to hit U.S. In Virginia, Camille was only a tropical depression with winds at 25 mph. Severe flooding in the western portions of the state but rainfall in Blackstone was only 2.31”.

1972 – Agnes’ record 7.47” of rain caused severe flooding conditions in central Virginia.

1975 – Eloise (9/23) : 4.74”

1979 – David arrives September 4<sup>th</sup> produces 4.45” of rain.

1985- As in 1955 three hurricanes strike Virginia in a single year. Blackstone totals: Bob 1.95”, Danny 3.10” and Juan 2.80”. Juan "Killer Flood of 1985" took a westward track, devastated the Lynchburg area. The path of the eye never touched Virginia.

1989 - Hugo devastates South Carolina, but drops only 1.35" on Blackstone.

1996 – Fran (9/7) produced 4.61”.

1999 - Dennis (9/4) and Floyd (9/16) team up to cause flooding that devastated Franklin.  
Dennis produced 4.47”, Floyd added 6.13” in the Blackstone area.

# Average Snowfall for Selected Virginia Stations

