Climatography of the United States No. 20 1971-2000

National Climatic Data Center Federal Building 151 Patton Avenue Asheville, North Carolina 28801 www.ncdc.noaa.gov

Station: PULASKI WATER PLANT, TN 1971-2000 COOP ID: 407459

Climate Division: TN 3 NWS Call Sign: Elevation: 634 Feet Lat: 35°11N Lon: 87°03W

									r	Гетр	eratui	re (°F)									
	Mea	n (1)						Extr	emes						Days (1) emp 65		Mean	Numb	er of I	Days (3)	
Month	Daily Max	Daily Min	Mean	Highest Daily(2)	Year	Day	Highest Month(1) Mean	Year	Lowest Daily(2)	Year	Day	Lowest Month(1) Mean	Year	Heating	Cooling	Max >= 100	Max >= 90	Max >= 50	Max <= 32	Min <= 32	Min <= 0
Jan	47.5	26.3	36.9	76	1960	13	45.4	1990	-16+	1966	30	25.5	1977	871	0	.0	.0	15.6	2.5	19.6	.3
Feb	52.6	29.2	40.9	83	1996	24	50.0	1990	-6	1958	17	29.7	1978	675	0	.0	.0	19.1	1.1	15.7	.1
Mar	61.9	37.7	49.8	86+	1963	31	55.3	1973	3	1980	3	44.2	1996	474	2	.0	.0	27.8	.1	9.1	.0
Apr	70.6	45.7	58.2	91	1987	30	63.7	1981	22	1992	3	52.6	1997	221	16	.0	.1	29.7	.0	2.7	.0
May	78.0	54.6	66.3	96+	1962	16	71.5	1987	30	1976	4	61.2	1976	74	114	.0	1.4	31.0	.0	.1	.0
Jun	85.1	62.9	74.0	100+	1988	26	77.6	1998	39	1966	1	69.6	1974	3	274	.1	10.1	30.0	.0	.0	.0
Jul	88.7	67.5	78.1	105+	1980	16	81.6	1980	49	1962	28	75.3	1976	0	406	.7	18.2	31.0	.0	.0	.0
Aug	88.4	65.7	77.1	102	1964	4	81.4	1983	50+	1958	27	72.4	1992	0	374	.3	16.2	31.0	.0	.0	.0
Sep	82.7	58.3	70.5	100+	1999	6	74.9	1980	32	1967	30	65.2	1974	24	189	.1	6.9	30.0	.0	.0	.0
Oct	72.8	45.7	59.3	92+	1963	12	66.8	1984	22	1961	27	53.6	1976	216	38	.0	.1	30.9	.0	2.3	.0
Nov	61.2	37.4	49.3	86	1984	1	57.3	1985	10+	1970	24	41.6	1976	473	2	.0	.0	26.2	@	10.2	.0
Dec	51.4	30.0	40.7	78	1973	4	50.0	1984	-8	1989	22	30.3	1989	753	0	.0	.0	20.2	1.3	16.9	.2
Ann	70.1	46.8	58.4	105+	Jul 1980	16	81.6	Jul 1980	-16+	Jan 1966	30	25.5	Jan 1977	3784	1415	1.2	53.0	322.5	5.0	76.6	.6

⁺ Also occurred on an earlier date(s)

Complete documentation available from: www.ncdc.noaa.gov/oa/climate/normals/usnormals.html

Issue Date: February 2004 061-A

[@] Denotes mean number of days greater than 0 but less than .05

⁽¹⁾ From the 1971-2000 Monthly Normals

⁽²⁾ Derived from station's available digital record: 1957-2001

⁽³⁾ Derived from 1971-2000 serially complete daily data

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COOP ID: 407459

Station: PULASKI WATER PLANT, TN

Climate Division: TN 3 NWS Call Sign: Elevation: 634 Feet Lat: 35°11N Lon: 87°03W

										Pı	recipi	tation	(incl	nes)										
	Me	ans/	P	recip	itatio	on Total						ays (3	3)	Proba	ability th		nonthly/	annual j	precipita ated an	babilit ation will nount vs Probal	ll be equ		less tha	an the
	Medi	ans(1)				Extremes	8			D	aily Pre	cipitatio	n		Th	ese value	s were det	termined	from the	incomplet	e gamma	distributi	ion	
Month	Mean	Med- ian	Highest Daily(2)	Year	Day	Highest Monthly(1)	Year	Lowest Monthly(1)	Year	>= 0.01	>= 0.10	>= 0.50	>= 1.00	.05	.10	.20	.30	.40	.50	.60	.70	.80	.90	.95
Jan	5.21	4.46	5.72	1999	23	13.30	1999	.49	1986	10.3	7.6	3.7	1.4	1.34	1.83	2.58	3.25	3.91	4.60	5.37	6.29	7.49	9.37	11.14
Feb	4.65	4.05	4.60	1991	19	10.39	1991	.99	1978	8.9	7.1	3.2	1.3	1.45	1.89	2.55	3.11	3.66	4.22	4.84	5.56	6.50	7.96	9.31
Mar	6.21	5.39	5.70	1989	5	14.00	1973	2.17	1987	10.9	8.5	3.9	1.9	2.38	2.96	3.78	4.47	5.12	5.78	6.50	7.33	8.39	10.01	11.50
Apr	4.39	3.98	3.86	1983	5	10.00	1983	.34	1986	9.0	7.0	3.4	1.5	1.23	1.65	2.28	2.83	3.36	3.92	4.55	5.28	6.23	7.72	9.11
May	4.93	4.56	3.80	1991	19	11.20	1983	1.12	1987	9.0	7.0	3.1	1.5	1.33	1.80	2.51	3.13	3.74	4.39	5.10	5.94	7.04	8.76	10.37
Jun	4.58	4.18	3.38	1997	9	13.17	1997	1.39	1984	9.0	7.0	3.3	1.6	1.21	1.64	2.31	2.89	3.46	4.07	4.74	5.53	6.57	8.20	9.72
Jul	4.40	4.47	3.10	1967	22	8.32	1982	.81	1993	9.2	7.4	2.9	1.3	1.56	1.98	2.58	3.08	3.56	4.06	4.60	5.22	6.02	7.26	8.40
Aug	3.29	2.69	7.06	1963	29	7.71	1979	.67	1987	7.1	5.3	2.5	.9	.91	1.22	1.69	2.11	2.51	2.94	3.41	3.96	4.69	5.82	6.88
Sep	4.36	3.77	4.05	1979	21	11.83	1979	.62	1999	7.4	5.9	2.8	1.3	.96	1.37	2.01	2.58	3.16	3.78	4.47	5.29	6.38	8.12	9.75
Oct	3.53	2.94	5.95	1989	1	8.82	1984	.56	1987	6.1	5.0	2.6	1.1	.80	1.12	1.64	2.11	2.57	3.07	3.62	4.29	5.16	6.55	7.86
Nov	5.26	5.22	4.98	1999	2	11.16	1977	1.50	1998	8.7	6.8	4.0	1.8	1.98	2.47	3.17	3.76	4.31	4.88	5.50	6.22	7.13	8.53	9.81
Dec	5.66	4.61	4.85	1969	30	14.18	1990	1.09	1980	9.8	7.7	3.8	1.7	1.34	1.86	2.69	3.43	4.17	4.95	5.82	6.86	8.23	10.40	12.43
Ann	56.47	56.03	7.06	Aug 1963	29	14.18	Dec 1990	.34	Apr 1986	105.4	82.3	39.2	17.3	39.73	42.96	47.10	50.24	53.04	55.75	58.55	61.64	65.40	70.86	75.59

⁺ Also occurred on an earlier date(s)

Complete documentation available from:

www.ncdc.noaa.gov/oa/climate/normals/usnormals.html

[#] Denotes amounts of a trace

[@] Denotes mean number of days greater than 0 but less than .05

^{**} Statistics not computed because less than six years out of thirty had measurable precipitation

⁽¹⁾ From the 1971-2000 Monthly Normals

⁽²⁾ Derived from station's available digital record: 1957-2001

⁽³⁾ Derived from 1971-2000 serially complete daily data

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COOP ID: 407459

Station: PULASKI WATER PLANT, TN

Climate Division: TN 3 NWS Call Sign: Elevation: 634 Feet Lat: 35°11N Lon: 87°03W

										Snov	w (inc	hes)											
						Sno	ow To	tals									Mea	n Nu	mber	of Da	ys (1)		
	Mean	s/Medi	ans (1)	1					Extre	mes (2)							ow Fa					Depth esholo	
Month	Snow Fall Mean	Snow Fall Median	Snow Depth Mean	Snow Depth Median	Highest Daily Snow Fall	Year	Day	Highest Monthly Snow Fall	Year	Highest Daily Snow Depth	Year	Day	Highest Monthly Mean Snow Depth	Year	0.1	1.0	3.0	5.0	10.0	1	3	5	10
Jan	.7	.0	#	#	4.0	1985	20	4.0	1985	9	1988	9	2	1988	.6	.6	.1	.0	.0	.9	.4	.0	.0
Feb	.7	.0	#	0	6.0	1979	18	8.0	1979	6	1985	4	2	1985	.4	.4	.1	@	.0	.3	.2	@	.0
Mar	.2	.0	#	0	4.0	1993	13	4.0	1993	4	1993	13	#+	1999	.2	.1	@	.0	.0	.1	@	.0	.0
Apr	#	.0	0	0	#	1973	10	#	1973	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
May	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Jun	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Jul	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Aug	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Sep	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Oct	.0	.0	0	0	.0	0	0	.0	0	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Nov	#	.0	0	0	#	1976	12	#+	1976	0	0	0	0	0	.0	.0	.0	.0	.0	.0	.0	.0	.0
Dec	.3	.0	#	0	4.0	1997	29	4.0	1997	4	1997	29	#+	2000	.2	.1	@	.0	.0	.2	@	.0	.0
Ann	1.9	.0	N/A	N/A	6.0	Feb 1979	18	8.0	Feb 1979	9	Jan 1988	9	2+	Jan 1988	1.4	1.2	.2	@	.0	1.5	.6	@	.0

⁺ Also occurred on an earlier date(s) #Denotes trace amounts

Complete documentation available from: www.ncdc.noaa.gov/oa/climate/normals/usnormals.html

[@] Denotes mean number of days greater than 0 but less than .05

^{-9/-9.9} represents missing values Annual statistics for Mean/Median snow depths are not appropriate

⁽¹⁾ Derived from Snow Climatology and 1971-2000 daily data

⁽²⁾ Derived from 1971-2000 daily data

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COOP ID: 407459

Lon: 87°03W

Lat: 35°11N

Elevation: 634 Feet

Station: PULASKI WATER PLANT, TN

Climate Division: TN 3

NWS Call Sign:

				Freez	e Data								
			Spri	ng Freeze Da	ates (Month/	Day)							
Probability of later date in spring (thru Jul 31) than indicated(*) 10 20 30 40 50 60 70 80 90 36 500 4/28 4/25 4/22 4/19 4/17 4/14 4/11 4/06 32 4/27 4/21 4/17 4/14 4/11 4/08 4/05 4/01 3/27 28 4/44 4/09 4/06 4/03 3/31 3/28 3/26 3/22 3/18 24 3/31 3/23 3/18 3/13 3/08 3/04 2/27 2/21 2/13 20 3/15 3/09 3/04 2/28 2/24 2/20 2/16 2/11 2/04 16 3/06 2/27 2/21 2/16 2/12 2/07 2/02 1/27 1/18 Temp (F)													
remp (r)	.10	.20	.30	.40	.50	.60	.70	.80	.90				
36	5/02	4/28	4/25	4/22	4/19	4/17	4/14	4/11	4/06				
32	4/27	4/21	4/17	4/14	4/11	4/08	4/05	4/01	3/27				
28	4/14	4/09	4/06	4/03	3/31	3/28	3/26	3/22	3/18				
24	3/31	3/23	3/18	3/13	3/08	3/04	2/27	2/21	2/13				
20	3/15	3/09	3/04	2/28	2/24	2/20	2/16	2/11	2/04				
16	3/06	2/27	2/21	2/16	2/12	2/07	2/02	1/27	1/18				
•			Fal	l Freeze Dat	tes (Month/D	ay)	•						
Toman (E)		Pro	bability of ea	ırlier date ir	n fall (beginn	ing Aug 1) t	han indicate	d(*)					
remb (r)	.10	.20	.30	.40	.50	.60	.70	.80	.90				
36	10/02	10/05	10/08	10/11	10/13	10/15	10/18	10/20	10/24				
32	10/08	10/13	10/17	10/20	10/23	10/27	10/30	11/03	11/08				
28	10/23	10/28	11/01	11/04	11/07	11/10	11/13	11/16	11/21				
24	11/05	11/10	11/14	11/17	11/19	11/22	11/25	11/29	12/04				
20	11/15	11/22	11/27	12/01	12/06	12/10	12/14	12/19	12/26				
16	11/26	12/05	12/11	12/17	12/22	12/27	1/02	1/09	1/19				
		•		Freeze F	ree Period			•	•				
Tomp (F)			Probability	of longer tha	an indicated	freeze free p	eriod (Days)						
remb (r)	.10	.20	.30	.40	.50	.60	.70	.80	.90				
36	192	187	183	179	176	173	169	165	160				
32	212	206	202	198	195	191	187	183	177				
28	241	234	229	224	220	216	211	206	198				
24	279	271	265	260	256	251	246	240	232				
20	311	302	295	289	284	279	273	266	257				
16	>365	338	327	319	312	305	298	290	279				

^{*} Probability of observing a temperature as cold, or colder, later in the spring or earlier in the fall than the indicated date.

0/00 Indicates that the probability of occurrence of threshold temperature is less than the indicated probability.

Derived from 1971-2000 serially complete daily data

Complete documentation available from:

Climate Division: TN 3

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COOP ID: 407459

Lon: 87°03W

Station: PULASKI WATER PLANT, TN

NWS Call Sign:

Elevation: 634 Feet Lat: 35°11N

				Deg	ree Days t	o Selected	Base Tem	peratures	(°F)				
Base						Heatin	g Degree I	Days (1)					
Below	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
65	871	675	474	221	74	3	0	0	24	216	473	753	3784
60	716	535	330	113	24	0	0	0	5	118	333	601	2775
57	632	457	252	67	10	0	0	0	2	76	257	515	2268
55	574	404	206	44	5	0	0	0	1	54	211	458	1957
50	434	280	113	11	0	0	0	0	0	18	118	325	1299
32	94	29	2	0	0	0	0	0	0	0	2	44	171

Base						Coolin	g Degree I	Days (1)					
Above	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ann
32	246	278	553	785	1063	1261	1429	1396	1155	845	521	314	9846
55	13	9	44	139	355	571	716	683	465	185	40	15	3235
57	9	6	28	102	298	511	654	621	406	146	26	10	2817
60	0	0	14	58	219	421	561	528	320	95	13	3	2232
65	0	0	2	16	114	274	406	374	189	38	2	0	1415
70	0	0	0	2	44	141	252	228	89	11	0	0	767

										Gro	wing 1	Degre	e Uni	ts (2)										
Base					Growin	g Degree	Units (M	Ionthly)					Growing Degree Units (Accumulated Monthly)											
	Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Do													Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
40	120	195	396	602	868	1063	1213	1180	961	646	346	172	120	315	711	1313	2181	3244	4457	5637	6598	7244	7590	7762
45												96	61	177	439	897	1610	2523	3581	4606	5417	5909	6133	6229
50	28 58 160 317 558 763 903 870 661 347 133											47	28	86	246	563	1121	1884	2787	3657	4318	4665	4798	4845
55	2	24	85	199	403	613	748	715	511	218	64	21	2	26	111	310	713	1326	2074	2789	3300	3518	3582	3603
60	0	2	36	107	255	463	593	560	366	115	24	2	0	2	38	145	400	863	1456	2016	2382	2497	2521	2523
Base	Growing Degree Units for Corn (Monthly)														Gr	owing D	egree Un	its for C	orn (Acc	umulate	d Month	ly)		
50/86	50/86 77 133 258 395 569 725 831 802 645 433 220 1											108	77	210	468	863	1432	2157	2988	3790	4435	4868	5088	5196

(1) Derived from the 1971-2000 Monthly Normals

(2) Derived from 1971-2000 serially complete daily data

Note: For corn, temperatures below 50 are set to 50, and temperatures above 86 are set to 86

Notes

- a. The monthly means are simple arithmetic averages computed by summing the monthly values for the period 1971-2000 and dividing by thirty. Prior to averaging, the data are adjusted if necessary to compensate for data quality issues, station moves or changes in station reporting practices. Missing months are replaced by estimates based on neighboring stations.
- b. The median is defined as the middle value in an ordered set of values. The median is being provided for the snow and precipitation elements because the mean can be a misleading value for precipitation normals.
 - c. Only observed validated values were used to select the extreme daily values.
 - d. Extreme monthly temperature/precipitation means were selected from the monthly normals data.

Monthly snow extremes were calculated from daily values quality controlled to be consistent with the Snow Climatology.

e. Degree Days were derived using the same techniques as the 1971-2000 normals.

Compete documentation for the 1971-2000 Normals is available on the internet from:

www.ncdc.noaa.gov/oa/climate/normals/usnormals.html

f. Mean "number of days statistics" for temperature and precipitation were calculated from a serially complete daily data set .

Documentation of the serially complete data set is available from the link below:

g. Snowfall and snow depth statistics were derived from the Snow Climatology.

Documentation for the Snow Climatology project is available from the link under references.

Data Sources for Tables

Several different data sources were used to create the Clim20 climate summaries. In some cases the daily extremes appear inconsistent with the monthly extremes and or the mean number of days statistics. For example, a high daily extreme value may not be reflected in the highest monthly value or the mean number of days threshold that is less than and equal to the extreme value. Some of these difference are caused by different periods of record. Daily extremes are derived from the station's entire period of record while the serial data and normals data were are for the 1971-2000 period. Therefore extremes observed before 1971 would not be included in the 1971-2000 normals or the 1971-2000 serial daily data set. Inconsistencies can also occur when monthly values are adjusted to reflect the current observing conditions or were replaced during the 1971-2000 Monthly Normals processing and are not reconciled with the Summary of the Day data.

- a. Temperature/Precipitation Tables
 - 1. 1971-2000 Monthly Normals
 - 2. Cooperative Summary of the Day
 - 3. National Weather Service station records
 - 4. 1971-2000 serially complete daily data

- c. Snow Tables
 - 1. Snow Climatology
 - 2. Cooperative Summary of the Day
- d. Freeze Data Table

1971-2000 serially complete daily data

- b. Degree Day Table
 - 1. Monthly and Annual Heating and Cooling Degree Days Normals to Selected Bases derived from 1971-2000 Monthly Normals
 - 2. Daily Normal Growing Degree Units to Selected Base Temperatures derived from 1971-2000 serially complete daily data

References

U.S. Climate Normals 1971-2000, www.ncdc.noaa.gov/normals.html

U.S. Climate Normals 1971-2000-Products Clim20, www.ncdc.noaa.gov/oa/climate/normals/usnormalsprods.html

Snow Climatology Project Description, www.ncdc.noaa.gov/oa/climate/monitoring/snowclim/mainpage.html

Eischeid, J. K., P. Pasteris, H. F. Diaz, M. Plantico, and N. Lott, 2000: Creating a serially complete, national daily time series of temperature and precipitation for the Western United States. J. Appl. Meteorol., 39, 1580-1591,

www1.ncdc.noaa.gov/pub/data/special/ serialcomplete_jam_0900.pdf