

CLIMATOLOGICAL DATA

6

FLORIDA SECTION

W. J. Bennett, Jacksonville, Fla.

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NOVEMBER, 1938

No. 11

GENERAL SUMMARY

Warm weather continued throughout the first three weeks of November, especially over northeastern counties, and the month averaged about two degrees above normal over both divisions. However, a cold wave overspread northern and central Florida on Thanksgiving Day, with temperatures falling to freezing on the following morning (the 25th) at many places in northern counties. The last week of the month was decidedly cold for the season, with freezing temperatures or killing frosts over northern sections and light frosts southward to the Lake Okeechobee region on the 23th. Rather dry weather prevailed generally, only a few stations, mostly in southern counties, receiving more than normal rainfall.

Squally weather prevailed over southern and eastern coastal sections on the 8th in connection with a late tropical disturbance then centered near the Bahamas. While no damage to shipping was reported, wind and wave erosion was considerable on the east Florida coast with estimated damage from \$75,000 to \$100,000 on Anastasia Island, in the St. Augustine area. Strong winds were reported from the southeast coast and along the Keys.

The abnormally warm weather of the first three weeks was very favorable for farm work and crop development, although more moisture was needed. All crops did well. Snap beans, cabbage, cucumbers, tomatoes, eggplant, peppers, escarole and lettuce were shipped. Truck suffered severely in northern sections from the frosts and cold of the 25th and 28th; tender truck was killed in many localities and the growth of the more hardy vegetables was checked. Citrus was not damaged, and the cold weather improved the color and sugar content of the fruit. Strawberries improved and some small shipments were made. Celery did well, and was nearly ready for harvest in the Sarasota area by the end of the month.

I.C.P.

TEMPERATURE

The monthly mean temperature was 67.1°, or 2.1° above the average of 48 years. The highest monthly mean was 76.4° at Key West, and the lowest was 57.2° at Mason. The highest temperature was 94° at Ocala on the 5th, and the lowest was 15° at Vernon on the 29th. The greatest daily range was 47°.

PRECIPITATION

The average precipitation for the month was 1.60 inches, or a deficiency of 0.61 inch. The greatest monthly amount was 7.06 inches at West Palm Beach. The greatest amount in 24 consecutive hours was 3.45 inches at Hypoluxo on the 11th. The average number of rainy days was 7.

• Maximum Rainfall at Regular Stations

Stations	5 min.		10 min.		15 min.		30 min.		1 hour		2 hours		24 hours		Total Monthly
	Amount	Date	Amount	Date	Amount	Date	Amount	Date	Amount	Date	Amount	Date	Amount	Date	
Apalachicola	0.38	1930 0.63	1930 0.75	1930 1.04	1930 1.55	1930 2.24	1930 5.84	1930 8.67							
Jacksonville	0.05	24 0.08	24 0.09	24 0.11	24 0.21	24 0.24	24 0.28	24 0.51							
Key West	0.37	1932 0.59	1932 0.71	1932 0.97	1914 1.19	1920 1.50	1920 3.75	1884 6.09							
Miami	0.03	3 4.0	05 4 0.06	4 0.06	4 0.06	4 1.13	0.07 13 0.16	3.4 0.47							
Pensacola	0.36	1911 0.61	1911 0.78	1906 1.09	1906 1.71	1906 2.95	1906 8.86	1906 10.82							
Tampa	0.18	4 0.25	4 0.32	20 0.59	20 0.76	20 0.88	20 0.93	24 3.13							
	0.53	1925 0.78	1920 1.09	1925 2.07	1925 3.50	1925 6.11	1925 15.10	1925 17.72							
	0.15	24 0.24	24 0.31	24 0.36	24 0.41	24 0.43	24 0.42	24 1.76							
	0.65	1914 1.16	1914 1.64	1914 2.20	1914 3.17	1903 5.03	1903 7.66	1914 14.82							
	0.10	† 0.13	† 0.14	† 0.21	† 0.43	† 0.45	† 0.56	18-19 0.95							
	0.44	1903 0.69	1911 0.82	1911 1.31	1925 1.55	1925 2.04	1925 4.18	1916 4.85							
	0.26	4 0.34	4 0.40	4 0.47	4 0.48	4 0.48	4 0.48	4 0.70							

* First amount greatest previous; second, current month. † 18-19, WBO, Jacksonville. 12-21-38-1,000

DATES OF MISCELLANEOUS PHENOMENA

HALOS, LUNAR:—Apalachicola, 4th, 28th; Key West and Miami, 4th. HALOS, SOLAR:—Apalachicola, 16th, 27th; Jacksonville, 27th; Miami, 23d; West Palm Beach, 6th, 7th. THUNDERSTORMS:—No thunderstorms reported. KILLING FROST OR FREEZING TEMPERATURE:—Scattered in extreme northwestern counties 19th, 20th 24th; generally over northwestern counties and scattered over northeastern counties, 25th; scattered over northwestern and extreme northern counties 26th; scattered over northwestern and north-central counties 27th; generally over north and scattered over central counties the 28th, except none on central east coast; scattered over northern counties 29th and 30th.

PRESSURE, WIND, HUMIDITY, AND SUNSHINE DATA

Stations	Atmospheric pressure (Reduced to sea level)					Wind (true velocity)			Mean relative humidity			Percentage of sunshine	
	Mean	Highest	Date	Lowest	Date	Average hourly velocity	Maximum velocity	Direction	Date	7-30 a. m.	Noon		7-30 p. m.
Apalachicola	30.13	30.54	28	29.80	4	9.1	31	e.	23	86	66	77	65
Jacksonville	30.33	30.49	28	29.82	13	8.4	27	ne	23	87	63	80	54
Key West	30.01	30.28	28	29.74	8	10.3	27	n.	23	84	73	80	72
Miami	30.03	30.29	28	29.71	8	8.8	29	ne	30	81	68	76	68
Pensacola	30.14	30.58	28	29.82	4	12.8	38	se.	4	76	61	67	59
Tampa	30.00	30.42	28	29.85	8	11.8	29	e.	6	89	62	76	68

COMPARATIVE DATA FOR NOVEMBER

Year	Temperature					Precipitation			Number of days				
	Average north	Average south	Average state	Highest	Lowest	Average north	Average south	Average state	Greatest 24-hour	Precip. 0.01 inch or more	Clear	Partly cloudy	Cloudy
1891....	60.3	66.9	63.6	88	27	2.14	1.81	1.98	2.13	5	15	10	5
1892....	61.0	64.3	62.6	90	31	0.82	0.06	0.76	1.49	4	19	9	2
1893....	62.5	67.2	64.8	88	30	3.13	2.05	2.84	3.60	6	14	10	7
1894....	61.1	67.5	64.3	88	29	4.07	1.96	3.02	5.90	6	17	7	6
1895....	61.6	68.3	65.0	90	30	2.99	2.53	2.76	2.78	7	12	11	7
1896....	67.3	72.6	70.0	89	34	5.06	2.28	3.67	4.61	8	11	13	9
1897....	64.0	69.3	66.6	89	30	1.95	1.70	1.82	5.08	4	16	9	5
1898....	62.6	69.6	66.1	94	30	3.06	1.50	2.28	2.00	6	18	11	5
1899....	62.6	68.4	66.0	87	34	0.84	0.72	0.73	2.08	3	16	9	8
1900....	62.3	67.7	65.0	92	27	1.42	1.72	1.27	3.00	4	19	8	3
1901....	56.0	62.8	59.4	90	21	0.99	0.78	0.88	1.27	4	20	6	4
1902....	65.7	71.8	68.8	91	28	4.04	2.26	3.15	5.00	6	14	10	6
1903....	60.1	65.4	62.8	93	17	3.12	2.51	2.82	7.51	6	15	9	6
1904....	59.6	65.1	62.4	86	27	2.74	3.24	2.99	3.14	5	15	9	7
1905....	63.3	69.1	66.2	91	31	1.14	0.66	0.90	2.01	2	20	6	4
1906....	63.9	69.2	66.6	92	25	0.69	1.18	0.86	6.86	6	18	8	4
1907....	61.2	68.8	65.0	92	26	3.41	1.40	2.40	14.96	3	14	9	7
1908....	63.0	68.4	65.7	93	25	0.91	2.88	1.90	5.06	4	19	7	4
1909....	64.6	68.6	66.6	91	27	1.02	0.79	0.90	1.73	1	21	7	2
1910....	58.9	63.7	61.3	89	27	2.46	1.39	1.90	2.52	4	21	5	4
1911....	61.8	70.4	66.1	97	20	3.84	4.44	4.14	5.66	8	11	10	9
1912....	55.1	66.4	62.8	92	25	2.90	2.91	2.90	11.00	5	18	8	5
1913....	63.1	68.0	65.6	89	25	0.82	1.23	1.02	5.80	4	14	11	4
1914....	60.6	67.4	64.0	90	19	2.93	3.05	2.99	7.66	6	15	8	7
1915....	64.4	69.7	67.0	92	24	2.09	3.08	2.57	8.26	4	20	7	3
1916....	61.8	68.3	65.0	89	23	3.10	4.23	3.66	8.55	7	16	9	5
1917....	57.0	63.9	60.4	85	23	0.73	0.42	0.58	1.28	3	19	7	4
1918....	60.7	68.7	64.7	90	29	4.35	2.56	3.46	5.10	6	17	6	7
1919....	65.3	71.1	68.7	92	34	3.06	3.32	3.29	4.50	7	14	9	7
1920....	59.6	65.6	64.1	89	23	4.08	4.04	4.06	4.70	7	15	6	9
1921....	64.8	71.1	68.0	92	29	3.22	2.14	2.68	4.08	6	17	8	5
1922....	64.0	70.9	67.4	92	26	0.79	2.25	1.54	3.52	5	16	10	4
1923....	58.7	65.2	62.0	89	27	1.23	0.47	0.85	2.40	4	16	8	6
1924....	61.4	68.2	64.8	88	23	0.60	0.47	0.54	1.40	3	19	8	8
1925....	59.8	68.7	64.2	91	24	3.10	4.92	4.01	15.10	7	10	9	11
1926....	58.4	66.9	62.6	91	24	3.85	2.45	3.15	3.11	6	16	7	7
1927....	65.2	70.3	67.8	90	23	1.60	0.87	1.24	5.60	5	15	10	5
1928....	59.8	68.0	63.9	93	23	0.85	0.56	0.70	2.10	3	15	9	6
1929....	64.0	72.2	68.1	92	21	1.86	1.46	1.66	5.62	6	13	10	7
1930....	60.5	66.8	63.6	91	21	6.11	1.25	3.68	7.75	6	11	10	9
1931....	65.7	70.7	68.2	90	30	0.30	0.61	0.46	1.14	4	16	10	4
1932....	59.0	66.2	62.6	89	24	4.85	4.18	4.52	10.90	10	13	8	9
1933....	66.5	66.2	63.4	89	25	2.12	1.98	1.55	4.83	4	20	6	4
1934....	63.2	68.3	66.3	91	26	1.38	0.80	1.59	4.10	4	15	9	6
1935....	63.0	68.6	65.8	91	21	1.54	1.53	1.54	11.80	5	15	9	6
1936....	59.9	67.7	63.8	92	18	0.85	2.21	1.53	3.45	5	15	8	7
1937....	58.6	66.1	62.4	89	21	4.79	3.90	4.34	6.02	8	15	8	7
1938....	63.6	70.6	67.1	94	15	1.15	2.04	1.60	3.45	7	13	11	6
Period	61.8	68.1	65.0	97	15	2.37	2.04	2.21	15.10	5	16	8	6

Climatological Data for November, 1938

Stations	Counties	Elevation, feet	Length of record, years	Temperature in degrees Fahrenheit						Precipitation in inches				Number of days				Prevailing direction of wind	Observers		
				Mean	Departure from the normal	Highest	Date	Lowest	Date	Greatest daily range	Total	Departure from the normal	Greatest in 24 hours	Snowfall, un-melted	With or more precipitation	Clear	Partly cloudy			Cloudy	
Northern Division																					
Apalachicola	Franklin	13	34	62.8	+1.5	83	13	29	28	38	0.51	-2.56	0.28	0	4	11	10	9	e.	U.S. Weather Bureau	
Blountstown	Calhoun	51	25	61.8	+2.9	90	17	21	29	43	1.17	-1.99	0.66	0	4	10	18	2	e.	W. M. Bailey	
Carratelle	Franklin	36	40	62.2	+1.1	84	6	24	28	34	0.93	-1.70	0.36	0	4	11	14	5	e.	J. C. Moore	
Cedar Key	Levy	15	49	67.8	+3.6	88	7	28	28	38	0.21	-1.47	0.15	0	2	20	4	6	e.	R. M. Bramlett	
Compass Lake	Jackson	120	7	60.0	.....	86	13	21	29	42	0.84	.....	0.70	0	2	14	13	3	ne.	Earl E. Tharp
Cottage Hill	Escambia	132	16	58.2	-1.0	81	13	20	29	42	1.52	-1.96	0.67	0	4	17	3	10	n.	Geo. E. Whyler	
Crescent City	Putnam	56	39	67.6	+2.8	85	19	32	28	31	1.69	-0.03	0.55	0	11	12	10	8	n.	Walter Cliff	
Daytona Beach	Volusia	10	15	68.2	+2.1	83	14	35	28	33	2.10	-0.37	0.70	0	6	21	5	4	ne.	Capt. Rollie Mix	
Daytona Beach Airport	do	25	3	67.0	.....	85	17	33	28	40	3.93	.....	2.50	0	10	3	20	7	e.	Dept. of Com. Airway
DeFuniak Springs	Walton	268	39	60.7	+1.6	88	6	22	28	35	0.79	-2.79	0.30	0	8	17	5	8	ne.	H. C. Storrs	
De Land	Volusia	27	43	68.1	+3.6	88	18	34	28	29	2.44	+0.56	1.58	0	11	18	9	3	e.	Miss Katherine Leary	
Federal Point II	Putnam	5	46	67.7	+3.3	89	18	35	25	30	1.38	-0.42	0.52	0	7	11	15	4	n.	Bruce Gray	
Fernandina	Nassau	22	46	65.8	+3.6	85	19	32	28	37	0.66	-1.65	0.22	0	9	8	9	13	ne.	Lewis K. Nolan	
Gainesville	Alachua	165	42	65.9	+2.8	87	18	26	28	31	0.74	-1.08	0.32	0	9	10	15	5	ne.	J. R. Watson	
Glen St. Mary	Baker	129	41	63.8	+2.5	86	18	25	28	39	0.31	-1.40	0.10	0	4	9	15	6	ne.	G. St. M. Nurseries	
Hastings	St. Johns	10	14	65.6	+2.2	88	5	34	25	28	1.46	-0.32	0.36	0	9	.....	.....	.....	.....	A. K. Hough
Hilliard	Nassau	64	29	64.2 ^a	+3.4	86	19	28	26	46	0.65	-1.13	0.30	0	4	6	14	10	ne.	Thos. J. Bullford	
Jacksonville	Duval	18	66	64.1	+1.9	85	18	28	28	38	0.47	-1.51	0.16	0	9	8	11	11	no.	U. S. Weather Bureau	
Jacksonville Airport	do	28	.....	63.6	.....	87	19	28	28	37	0.44	.....	0.18	0	7	10	9	11	n.	do
Lake City	Columbia	197	54	64.4	+2.9	85	5	25	28	46	0.29	-1.43	0.14	0	5	16	7	7	w.	U. S. Forest Service	
Lamont	Jefferson	85	2	62.4 ^a	.....	89	7	23	29	45	1.18	.....	0.40	0	4	19	10	1	w.	J. M. Thompson
Madison	Madison	145	39	61.8	+0.9	85	6	25	28	33	1.94	-0.43	0.70	0	9	7	2	21	n.	T. C. Merchant	
Marianna	Jackson	120	38	61.8	+2.8	87	5	35	24	36	1.68	-1.18	0.36	0	9	9	9	12	ne.	Pla. Ind. Sch. for Boys	
Mason (near) II	Escambia	200	.....	57.2	.....	88	17	17	28	46	1.16	.....	0.42	0	5	9	24	6	nw.	W. J. Turner
Monticello	Jefferson	202	34	60.3	+0.5	84	6	24	28	35	1.14	-1.40	0.42	0	8	5	13	1	e.	Springdale Groves	
Mount Pleasant	Gadsden	301	31	60.7	+1.9	83	6	22	28	37	0.86	-1.58	0.71	0	2	12	13	5	se.	A. N. Hubbard	
New Smyrna	Volusia	10	54	59.0	+3.4	85	5	36	28	38	2.09	-0.04	1.16	0	9	4	22	4	e.	B. Nordman	
Niceville	Okaloosa	60	11	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	U. S. Forest Service
Ocala	Marion	84	45	66.6	+3.4	94	5	29	28	40	0.76	-0.94	0.61	0	4	12	13	5	nw.	Nathaniel R. Dehon	
Palatka	Putnam	80	13	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	H. M. Pearnside
Panama City II	Bay	21	41	61.3	-0.6	83	12	24	28	40	0.63	-2.54	0.33	0	5	9	17	4	ne.	Mrs. B. F. Leto	
Pensacola	Escambia	11	58	60.1	-0.1	79	18	26	28	32	0.95	-2.75	0.56	0	6	10	11	9	ne.	U. S. Weather Bureau	
Perry	Taylor	45	8	63.6 ^b	+3.0	88	6	24	28	41	0.90	-1.50	0.90	0	1	13	6	11	nw.	E. W. Hutchings	
Quincy	Gadsden	250	23	61.3	+2.1	85	6	22	29	42	1.07	-1.97	0.36	0	9	11	11	8	e.	State Exp. Station	
Raiford	Union	133	42	64.5	+3.5	84	19	30	29	36	0.77	-0.86	0.82	0	6	17	11	2	n.	State Farm	
St. Augustine	St. Johns	10	86	67.6	+3.2	86	17	33	28	39	2.25	+0.14	0.31	0	12	21	5	4	ne.	Arthur L. Marsh	
Tallahassee	Leon	192	52	63.0	+3.1	85	17	26	28	32	1.20	-1.42	0.75	0	6	8	19	3	s.	W. H. Markham	
Vernon	Washington	46	14	58.8 ^a	0.0	86	6	15	29	47	0.85	-2.41	0.25	0	7	15	3	12	ne.	J. D. Parish	
For the Division	.....	.....	.....	63.6	+1.8	94	5	15	29	47	1.15	-1.22	2.50	6	6	12	11	7	ne.	.....
Southern Division																					
Arcadia	De Soto	56	36	68.8	+1.2	87	5	35	28	32	1.61	+0.22	0.58	0	10	6	18	6	ne.	L. L. Stikeleather	
Avon Park (near)	Highlands	145	40	71.1	+3.0	90	10	38	28	32	2.50	+0.94	1.05	0	10	13	11	6	n.	T. L. Thomas	
Bartow	Polk	115	51	69.8	+3.4	90	8	35	28	34	1.20	-0.42	0.42	0	11	21	4	5	e.	Mrs. Sue H. Boswell	
Belle Glade	Palm Beach	16	13	71.1	+3.2	87	19	45	28	27	2.66	-0.08	0.92	0	10	11	8	11	ne.	State Exp. Station	
Bradenton	Manatee	17	64	69.2	+2.1	86	10	36	28	33	0.24	-1.65	0.14	0	0	3	23	5	2	nw.	Mrs. R. H. Brayner
Brooksville (near)	Hernando	275	46	68.4	+2.9	89	5	31	28	34	1.33	-0.74	0.43	0	8	7	2	21	e.	Mrs. Raymond Robin	
Bushnell	Sumter	75	1	66.4	88	5	28	28	45	0.68	0.27	0	6	4	14	12	4	ne.	A. H. Nelson
Chapman Field Garden II	Dade	10	15	72.2	+0.8	83	15	46	28	27	1.73	-0.25	0.69	0	12	18	2	10	e.	Bur. Plant Industry	
Clearwater	Pinellas	34	6	69.3	.....	88	18	34	28	31	0.63	.....	0.17	0	7	25	4	1	e.	City of Clearwater
Clermont	Lake	134	45	70.5	+2.8	89	5	36	25	41	0.55	-1.06	0.27	0	9	4	21	6	3	e.	A. P. Gibson
Davenport	Polk	157	15	69.7	+2.6	93	5	39	28	42	1.39	-0.36	0.59	0	0	7	8	11	11	ne.	Holly Hill G. & F. Co.
Davie II	Broward	7	25	72.5 ^a	+2.6	87	11	41	28	33	3.20	-0.56	0.73	0	8	21	5	4	se.	C. L. Walsh	
Euatis	Lake	85	47	67.2	+1.6	89	5	39	28	43	2.61	+0.72	0.92	0	13	20	9	1	ne.	Miss Grace Smith	
Everglades	Collier	6	11	74.0	+3.7	89	12	43	28	31	2.25	+1.06	1.74	0	0	3	16	11	ne.	Fla. R.R. & Nav. Co.	
Fellsmere	Indian River	25	26	71.6 ^a	+3.7	89	17	38	28	37	0.99	-1.37	0.62	0	8	8	13	9	ne.	Fellsmere Farm Co.	
Fort Lauderdale	Broward	7	25	75.2	+2.7	87	10	46	28	25	3.45	-0.53	0.65	0	15	1	28	1	e.	J. R. Carter	
Fort Myers	Lee	8	65	71.5	+2.0	88	5	40	28	26	0.39	-0.94	0.14	0	7	15	12	3	n.	A. G. Colcord	
Fort Pierce	St. Lucie	5	37	71.4	+1.4	85	19	41	28	31	4.07	+1.30	1.31	0	12	7	14	9	ne.	Mrs. T. C. Nicholson	
Homestead	Dade	8	24	72.0	+1.1	87	11	46	28	28	2.44	-0.68	1.59	0	9	.....	.....	.....	.....	Sub-Trop. Exp. Sta.
Hypoluxo	Palm Beach	12	43	77.2	+4.9	87	10	59	25	16	7.01	+3.53	3.45	0	13	14	14	2	ne.	J. L. Garnett	
Inverness	Citrus	70	37	68.0	+4.4	87	5	33	28	31	0.66	-1.23	0.28	0	4	21	6	3	n.	Frank Morris	
Key West	Monroe	5	67	76.4	+2.1	86	10	60	23	12	3.13	+0.94	0.93	0	12	15	9	6	ne.	U. S. Weather Bureau	
Kissimmee	Osceola	69	44	68.8	+1.9	88	10	35	28	31	0.90	-1.13	0.19	0	10	27	2	1	se.	G. A. Lake	
La Belle	Hendry	13	7	71.0	.....	88	5	38	28	32	1.26	.....	0.96	0	5	20	8	2	e.	Mrs. Alice E. Hall
Lake Alfred	Polk	152	13	67.5	0.0	85	18	32	28	41	0.50	+1.36	0.16	0	4	15	9	6	n.	Citrus Exp. Station	
Lakeland	do	215	23	68.7	+1.3	85	5	34	28	39	1.97	+0.13	0.69	0	8	14	14	2	n.	Chamber Commerce	
Lake Placid	Highlands	141	5</																		

Daily Temperatures for November, 1938

Table with columns for Stations, days 1-31, and Mean. Rows are categorized into Northern Division and Southern Division, listing various Florida locations and their daily temperature ranges.

* , * , etc. indicate respectively 1, 2, 3, etc., days missing from record.

§§ Instruments are read in the morning; the maximum temperature then read is charged to the preceding day on which it almost always occurs.