THE UNIVERSITY OF ALABAMA IN HUNTSVILLE

The Alabama Climate Report

Brought to you by the Office of the Alabama Climatologist

Volume 6, Number 10, July 2016

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You might recall (I had to look it up) that back in May we talked just a bit about the impact a developing La Niña Pacific Ocean cooling event might have on summer weather in Alabama, as well as on the Atlantic hurricane season.

It has been just a couple of months since then, but things haven't gone exactly as expected — although the state's weather has been doing pretty much what we forecast.

We said in early May that if the eastern Pacific Ocean along the Equator near South America shifted this summer from a warm phase to a cool phase, during that transition period we would have a better than normal chance for a summer that is warmer and drier than usual, especially in the southern two-thirds of the state.

Through June and July it has been that, somewhat. In most places. Except where it was cooler and/or wetter. (Jasper saw three one-day rainfall records broken in July, including its wettest July day on record, 4.93" on July 10.)

That's the thing about summer weather in Alabama. It can be spotty. A thunderstorm can pop up and drop a couple of inches of rain on one side of the road while leaving the other side completely parched. Check out the climate summaries for the place-by-place data. In our 24-site state survey (Gainesville Lock was off-line for a large part of July), 17 were warmer than normal in July, while 14 were drier than normal. That leaves large swaths of cooler and/or wetter.

But the La Niña transition doesn't seem to be much at work on our weather this summer because that cool pool isn't developing as rapidly as expected. Sea surface temperatures in that part of the Pacific are cooler than normal, but the NOAA forecast for the region says there is only a 55 to 60 percent chance an actual La Niña event will happen this fall.

That isn't necessarily a bad thing. Atlantic hurricanes tend to be more common during La Niña years, and it has been a relatively quiet hurricane season. Part of that, however, might have to do with a large region of cooler than normal water puddling about in the northeastern Atlantic.

While a cool eastern Pacific tends to enhance the formation of hurricanes, a cool pool in the North Atlantic tends to block them. So far this summer it seems the cool Atlantic is winning the meteorological tug of war.

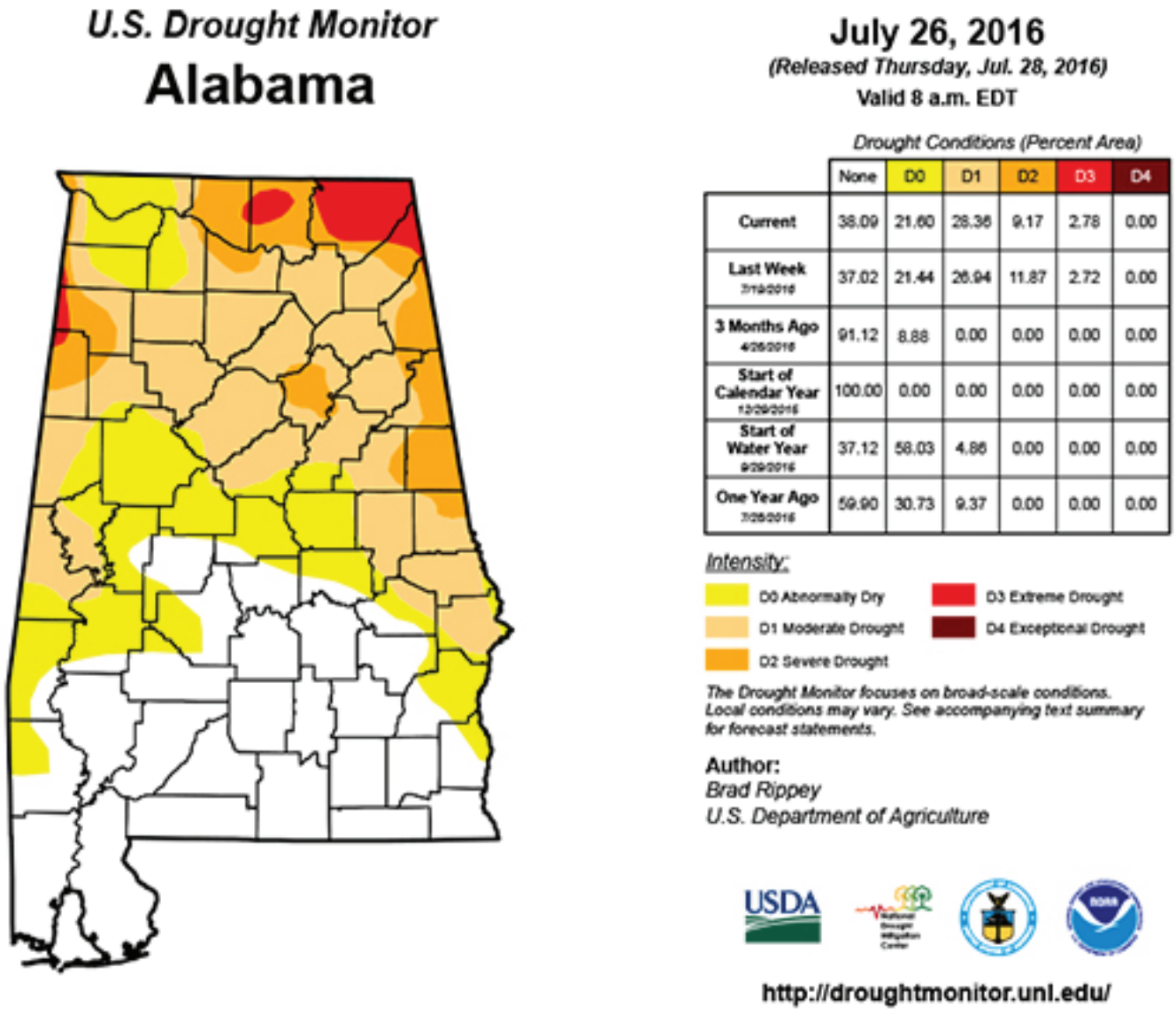
This doesn't mean, however, that we get a free pass on being weather prepared. It takes only one

bad tropical system to cause havoc and destruction. Think hurricane Andrew. Andrew was the only major Atlantic hurricane in 1992, but it was more than enough.

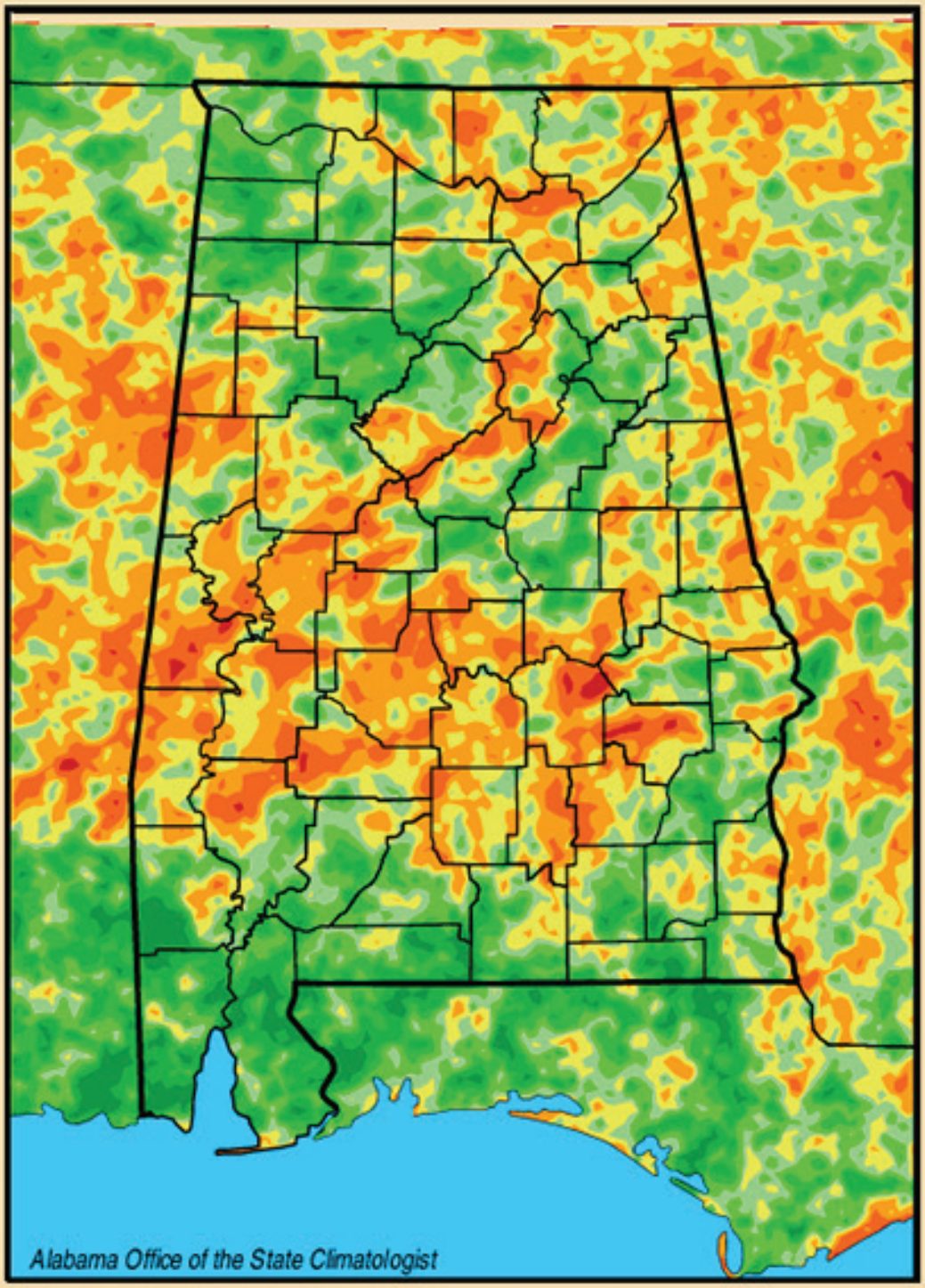
This October 24 will be the 11th anniversary of Wilma coming ashore in Florida as a category 3 hurricane — the last “major” hurricane to hit the continental U.S.

We are overdue, so let’s also be prepared.

- John Christy



Lawn-and-Garden Moisture Index for August 1, 2016



Alabama Monthly Climate Summaries

July 2016

	Station Began	July Mean July Norm	July Hi Temp Record Hi	July Low Temp Record Low	Total Precip. Normal Prec.	Wettest July Driest July	Heaviest Day Record Day
Anniston	2/1903	82.6° 80.1°	99° 7/9/16 105° 7/13/80	62° 7/1/16 50° 7/15/67	3.02" 4.49"	12.21" 1975 0.79" 1983	1.01" 7/10/16 5.13" 7/7/75
Auburn	1/1893	83.1° 79.9°	97° 7/20/16 108° 7/11/30	69° 7/12/16 52° 7/15/67	1.95" 5.37"	15.73" 1916 1.39" 1914	0.53" 7/9/16 7.00" 7/10/48
Birmingham	1/1930	83.7° 80.2°	98° 7/20/16 107° 7/29/30	64° 7/1/16 51° 7/15/67	7.08" 5.09"	10.07" 1985 0.30" 1983	2.52" 7/9/16 5.47" 7/27/85
Brewton	4/1977	78.9° 80.1°	94.2° 7/2/16 106° 7/24/52	68.9° 7/2/16 51° 7/15/67	5.28" 7.04"	19.08" 1975 1.66" 2000	1.00" 7/17/16 7.88" 7/31/75
Calera	9/1900	83.0° 79.3°	99° 7/9/16 105° 7/7/77	63° 7/1/16 50° 7/15/67	2.77" 5.36"	18.52" 1916 0.42" 1983	0.70" 7/31/16 7.00" 7/7/1916
Clanton	2/1893	80.2° 79.2°	96.0° 7/8/16 108°+ 7/26/52	62.8° 7/1/16 53° 7/15/67	3.48" 5.76"	13.97" 1971 1.29" 1995	0.77" 7/16/16 7.14" 7/4/40
Courtland		80.4° M	96.6° 7/4/16 M	61.9° 7/1/16 M	4.57" M	M M	0.94" 7/10/16 M
Cullman	7/1907	78.7° M	96.3° 7/21/16 M	55.5° 7/1/16 M	3.69" 4.44"	M M	1.02" 7/5/16 M
Decatur	2/1880	82.0° 80.5°	98° 7/21/16 107° 7/12/1901	60° 7/1/16 M	3.84" 4.22"	10.89" 1958 0.67" 1962	1.41" 7/9/16 4.65" 7/16/50
Dothan	2/1902	83.3° 81.3°	97° 7/9/16 103° 7/24/52	71° 7/22/16 57° 7/5/1902	8.58" 5.86"	12.73" 1948 2.12" 1903	2.39" 7/17/16 6.73" 7/9/48
Fairhope	8/1917	81.1° 81.5°	93.6° 7/2/16 101° 7/16/80	69.8° 7/15/16 59° 7/16/67	4.60" 8.00"	28.58" 1997 0.82" 1983	1.79" 7/24/16 14.52" 7/20/97
Gadsden	7/1893	78.2° 79.8°	95.9° 7/21/16 103°+ 7/15/66	56.3° 7/1/16 52° 7/11/63	4.52" 4.47"	13.41" 1985 0.79" 1980	1.26" 7/21/16 3.36" 7/9/58
Gainesville Lock	6/1948	M# M#	M# M#	M# M#	M# M#	M# M#	M# M#
Greensboro	2/1890	80.3° 81.9°	95.5° 7/8/16 107°+ 7/16/80	61.0° 7/1/16 56° 7/23/47	5.03" 5.38"	11.03" 1985 1.19" 2000	2.16" 7/14/16 3.90" 7/18/36
Highland Home	3/1892	79.3° 79.6°	94.2° 7/8/16 105° 7/15/80	67.5° 7/13/16 54° 7/15/67	4.86" 4.93"	10.79" 1994 1.19" 1978	0.94" 7/14/16 3.15" 7/8/48
Huntsville	1/1959	83.4° 79.5°	100° 7/21/16 104° 7/14/86	61° 7/1/16 53° 7/15/67	4.93" 4.50"	14.81" 1967 0.79" 1983	1.70" 7/14/16 4.81" 7/5/2001

Alabama Monthly Climate Summaries

July 2016

	Station Began	July Mean July Norm	July Hi Temp Record Hi		July Low Temp Record Lo		Total Precip. Normal Prec.	Wettest July Driest July		Heaviest Day Record Day	
Mobile	3/1900	82.9° 81.5°	97° 104°	7/2/16 7/25/52	71° 62°+	7/15/16 7/16/67	6.75" 6.54"	13.14" 1.72"	1982 1983	1.56" 4.21"	7/21/16 7/18/69
Montgomery	6/1948	84.9° 81.8°	100° 105°+	7/2/16 7/25/52	71° 60°	7/15/16 7/1/50	5.61" 5.31"	9.99" 1.69"	1988 2000	1.50" 3.84"	7/11/16 7/14/73
Muscle Shoals	12/1940	82.6° 80.2°	99° 106°+	7/8/16 6/29/52	63° 53°+	7/1/16 6/7/72	5.05" 4.52"	14.40" 0.92"	1975 1977	1.37" 5.60"	7/6/16 7/28/72
Russellville	9/1953	78.5° 78.0°	95.1° 103°	7/26/16 7/18/80	58.3° 45°	7/1/16 7/8/70	5.06" 4.65"	10.82" 1.27"	1994 1978	1.97" 3.10"	7/10/16 7/24/63
Scottsboro	10/1891	79.3° 78.6°	97.5° 109°	7/21/16 7/13/30	57.8° 49°+	7/1/16 7/10/63	3.81" 4.53"	7.59" 1.32"	1984 1980	2.04" 3.43"	7/5/16 7/22/41
Selma	1/1895	80.3° 81.5°	97.0° 107°+	7/21/16 7/14/80	65.8° 57°	7/1/16 7/15/67	1.82" 4.28"	8.45" 1.11"	1994 2000	0.56" 3.96"	7/30/16 7/7/94
Talladega	2/1888	81.0° 78.2°	98.9° 107°+	7/9/16 7/17/80	62.0° 51°+	7/1/16 7/6/72	5.37" 4.75"	9.11" 1.40"	1985 1991	1.61" 3.05"	7/14/16 7/8/58
Thomasville	9/1891	79.6° 81.4°	95.1° 107°	7/21/16 7/13/30	67.7° 56°	7/2/16 7/15/67	2.59" 6.05"	15.91" 0.69"	1988 2000	0.93" 5.52"	7/13/16 7/6/88
Troy	6/1908	81.5° 80.5°	96° 107°	7/2/16 7/7/36	67° 56°	7/13/16 7/15/67	4.05" 5.80"	15.59" 1.66"	1994 2000	1.03" 4.55"	7/12/16 7/1/64
Tuscaloosa	6/1948	82.4° 81.8°	96° 107°	7/21/16 7/24/52	60° 54°	7/1/16 7/1/50	4.15" 5.00"	12.27" 0.72"	1997 1970	1.19" 4.57"	7/14/16 7/21/97
Valley Head	1/1893	77.0° 76.2°	94.1° 105°+	7/4/16 7/29/52	57.1° 45°	7/1/16 7/15/67	6.03" 5.18"	11.74" 0.94"	1976 1987	2.76" 4.52"	7/9/16 7/5/76
Statewide July 2015		81.21° /	100° 2 stations		55.5° Cullman		4.56"	28.58" Fairhope		2.76" Valley Head	
July Norm		80.11° /	109° Scottsboro		45° 2 stations		5.26"	0.30" Birmingham		14.52" Fairhope	

M: *Data is missing or not available*

**New Record*

#This data is missing this month due to an instrument malfunction

^ This record differs from long-term data in the AOSC climate database:
http://nsstc.uah.edu/alclimate/climate/daily_climate_and_normals.php

New Local Climate Records[1]

July 2016

Precipitation, Daily

	New Record	Previous Year	Previous Record	Period of Record
5 July 2016				
WALNUT GROVE	2.77	2005-07-05	2.00	75
6 July 2016				
JACKSONVILLE	1.20	2011-07-06	0.77	68
10 July 2016				
FORT PAYNE	2.29	1958-07-10	2.07	80
JASPER	4.93	2005-07-10	2.90	55
TALLADEGA	2.00	2005-07-10	1.77	128
13 July 2016				
SYLACAUGA 4 NE	1.78	2009-07-13	1.32	61
14 July 2016				
GREENSBORO	2.15	1948-07-14	1.87	124
RUSSELLVILLE No 2	0.90	1963-07-14	0.79	62
HUNTSVILLE AIRPRT	1.70	2011-07-14	1.52	57
15 July 2016				
ALICEVILLE L AND D	3.66	1988-07-15	0.88	36
JACKSON	1.88	2011-07-15	1.78	54
JASPER	1.12	1973-07-15	0.98	55
T'LOOSA OLIVER DM	1.30	2013-07-15	1.20	116
17 July 2016				
JONES BLUFF L&D	1.72	2010-07-17	1.48	35
OPELIKA	1.40	1988-07-17	1.30	59
21 July 2016				
THORSBY EXP STA	2.16	1970-07-21	1.42	58
22 July 2016				
CLAYTON	2.70	1939-07-22	2.15	87
ENTERPRISE 2 W	1.25	1986-07-22	1.16	50
MOBILE DNTWN APRT	2.48	1958-07-22	2.02	67
SYLACAUGA 4 NE	1.66	1970-07-22	0.73	61
TALLADEGA	2.81	1892-07-22	1.94	128
24 July 2016				
CAHABA PUMP HS	1.52	2013-07-24	1.32	34
27 July 2016				
BAY MINETTE	1.50	1948-07-27	1.25	102
COFFEEVILLE L&D	1.18	2001-07-27	0.50	33
29 July 2016				
HAMILTON 3 S	1.94	1995-07-29	1.07	54
JACKSON	1.10	1980-07-29	0.90	54
MOULTON 2	0.96	1982-07-29	0.85	59
30 July 2016				
HALEYVILLE	1.85	1972-07-30	1.25	113
31 July 2016				
JASPER	2.37	2012-07-31	2.26	55

Maximum High Temperature, Daily

	New Record	Previous Hottest Day	Previous Record	Period of Record
3 July 2016				
CLAYTON	99	1960-07-03	98	60
4 July 2016				
CLAYTON	98	2014-07-04	96	60
5 July 2016				
ALEXANDER CITY	100	2012-07-05	98	46
22 July 2016				
MARION JUNCTION 2 NE	100	2015-07-22	98	66

Precipitation, Wettest July Day

	New Record	Previous Wettest Day	Previous Record	Period of Record
10 July 2016				
JASPER	4.93	1985-07-27	3.60	55

Minimum Low Temperature, Daily

	New Record	Previous Year	Previous Record	Period of Record
22 July 2016				
OPELIKA	55	1971-07-22	59	59
23 July 2016				
OPELIKA	55	1971-07-23	59	59
26 July 2016				
DEMOPOLIS LOCK & DAM	61	2009-07-26	64	64

[1] http://lwf.ncdc.noaa.gov/extremes/records/

Community Collaborative Rain, Hail & Snow Network (CoCoRAHS)

July 2016

	Total Precip.	# Stations
Autauga	2.19	2
Baldwin	5.43	22
Barbour	n.a.	0
Bibb	n.a.	0
Blount	5.12	8
Bullock	n.a.	0
Butler	7.61	1
Calhoun	5.26	2
Chambers	n.a.	0
Cherokee	5.34	1
Chilton	4.97	1
Choctaw	4.35	1
Clarke	4.06	1
Clay	n.a.	0
Cleburne	n.a.	0
Coffee	4.27	1
Colbert	4.78	6
Conecuh	n.a.	0
Coosa	3.68	1
Covington	n.a.	0
Crenshaw	n.a.	0
Cullman	3.30	5
Dale	6.35	1
Dallas	3.15	1
DeKalb	5.74	3
Elmore	2.83	5
Escambia	9.72	1
Etowah	n.a.	0
Fayette	3.35	1
Franklin	n.a.	0
Geneva	n.a.	0
Greene	n.a.	0
Hale	n.a.	0
Henry	n.a.	0

	Total Precip.	# Stations
Houston	7.29	3
Jackson	4.84	7
Jefferson	3.50	13
Lamar	n.a.	0
Lauderdale	4.42	10
Lawrence	6.75	2
Lee	1.72	4
Limestone	4.87	10
Lowndes	n.a.	0
Macon	n.a.	0
Madison	3.31	41
Marengo	n.a.	0
Marion	2.30	1
Marshall	4.10	10
Mobile	7.95	13
Monroe	5.77	2
Montgomery	3.80	4
Morgan	5.76	5
Perry	n.a.	0
Pickens	3.93	1
Pike	n.a.	0
Randolph	3.66	2
Russell	4.00	2
St. Clair	4.06	6
Shelby	3.20	16
Sumter	n.a.	0
Talladega	6.57	4
Tallapoosa	3.68	3
Tuscaloosa	3.16	5
Walker	n.a.	0
Washington	5.34	1
Wilcox	5.18	2
Winston	4.73	2

Normal July Precipitation*

Abbeville	6.14"
Alberta	5.00"
Alex City	5.14"
Aliceville	4.55"
Andalusia	6.47"
Ashland	5.64"
Athens	4.30"
Bay Minette	8.08"
Bessemer	5.25"
Billingsley	5.33"
Centreville WSMO	5.15"
Chatom	6.21"
Claiborne L&D	5.39"
Clayton	5.91"
Dauphin Isl.	6.43"
Elba	6.45"
Eufaula WR	5.14"
Evergreen	6.41"
Fayette	4.77"
Geneva 2	5.94"
Greenville	5.86"
Haleyville	4.94"
Hamilton 3S	4.67"
Heflin	4.82"
Hurtsboro	5.23"
Jasper	5.25"
Lafayette	5.52"
Livingston	5.76"
Melvin	5.94"
Milstead	5.19"
Moulton	4.47"
Oneonta	5.66"
Perryville	5.04"
Plantersville	5.18"
Rock Mills	5.12"
Rockford	5.82"
Sylacauga	5.13"
Union Springs	5.62"
Uniontown	5.11"
Vernon	5.29"
Warrior L&D	4.12"
Wetumpka	4.71"

*Southeast Regional Climate Center
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