

The Alabama Climate Report

Brought to you by the Office of the Alabama Climatologist

Volume 3, Number 12, September 2013



Dr. John Christy, Alabama State Climatologist

This month we note the 50th anniversary of what was, according to many sources, the driest month in Alabama's recorded weather record, going back to 1895. The average statewide rainfall for the entire month of October 1963 was only 0.04".

The U.S. Weather Bureau's weather recap for that month noted, "The dryness of previous months ... reached record proportions in October and resulted in severe drought in many areas."

Rain in early November, the bureau said, ended "the longest period of consecutive days (32) without measureable precipitation at Washington, D.C., since records began in 1871. Other stations with similar records were Albany, N.Y. (23), Cleveland, Ohio (27), Columbus, Ohio (48), and Knoxville, Tenn. (32)."

Muscle Shoals also went 32 days without any measureable rain, while Huntsville, Anniston and Tuscaloosa went 33 days without rain. On Nov. 1, the Huntsville Times reported, "Scottsboro had reported 0.15 inches of rain this morning at 8 a.m., the first measureable rainfall since Sept. 23."

That is 38 days without rain.

The Weather Bureau's 10/63 report said 68 of 102 weather stations in Alabama had no rain that month; the National Climatic Data Center's database says 132 of 181 stations had 0.00" of rain. The wettest city in the state was Garden City, which reported a grand total of 0.58" for the month.

October 1963 came after a drier than normal August (2.81") and September (3.24"), capping that summer's drought. Water shortages were reported in several cities. The Big Spring in Huntsville was completely dry. The fall hunting season was cancelled. An Associated Press story on Oct. 30, 1963, reported: "All Alabama forest have been ordered closed in the wake of the state's worst day of woods fires this year ... More than 3,000 acres were blackened Tuesday."

The state's forests were so dry, the Tennessee Valley district of the Boy Scouts of America ordered its scouts to avoid starting any fires "and in addition should not even go into woodlands during the hazardous conditions now existing." (More than 28,000 acres — almost 44 square miles — of Alabama forest burned in October 1963.)

On the last day of October, the Decatur Daily noted: "According to official rainfall records, only 0.02 of an inch of rain fell (in Decatur) ... Comparing this figure with charts that go back to 1879, it is the lowest amount for October with one exception — only a trace of rain was recorded in October,

1924.”

October is usually the driest month of the year in Alabama, with a normal statewide average rainfall of only 2.9 inches. November is the second driest at 3.71. Those are the only months where the average rainfall is less than four inches. So it isn't really surprising when you look at the driest months since 1895:

Alabama's driest months

1.	Oct. 1963	0.04"
2.	Nov. 1924	0.29"
3.	Oct. 1904	0.32"
4.	Oct. 1938	0.35"
5.	Oct. 1939	0.35"
6.	Oct. 1924	0.37"
7.	Oct. 1978	0.44"
8.	April 1915	0.55"
9.	Oct. 1987	0.56"
10.	Oct. 1944	0.60"
11.	Oct. 2005	0.61"
12.	Sept. 1984	0.66"

As far as the current weather, the cool and wet summer gave way to a more typical September, with warm and dry periods that were appreciated by farmers waiting for their crops to mature for harvesting. In our sample of stations, the statewide average temperature for the month was 0.1° warmer than normal for September, while the average rainfall was 3.11" — more than an inch below the norm of 4.20" for September.

As we noted last month, 2013 had a good shot at becoming only the sixth year since 1883 in which no station in Alabama reached 100°. We had one station hit 99°, but we didn't hit 100° at any official station in the state. The only other times that has happened in the past 120 years were 1965, 1974, 1994, 2001, and 2003.

-John Christy

U.S. Drought Monitor Alabama



October 15, 2013
(Released Thursday, Oct. 17, 2013)
Valid 7 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	100.00	0.00	0.00	0.00	0.00	0.00
Last Week 10/8/2013	100.00	0.00	0.00	0.00	0.00	0.00
3 Months Ago 7/16/2013	100.00	0.00	0.00	0.00	0.00	0.00
Start of Calendar Year 1/1/2013	40.07	59.93	33.67	19.47	9.81	0.00
Start of Water Year 10/1/2012	95.85	3.15	0.00	0.00	0.00	0.00
One Year Ago 10/15/2012	74.36	25.64	17.17	11.69	6.82	0.00

Intensity:

- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

Author:
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CPC/NOAA/NWS/NCEP



<http://droughtmonitor.unl.edu/>

Total Rainfall - September 2013

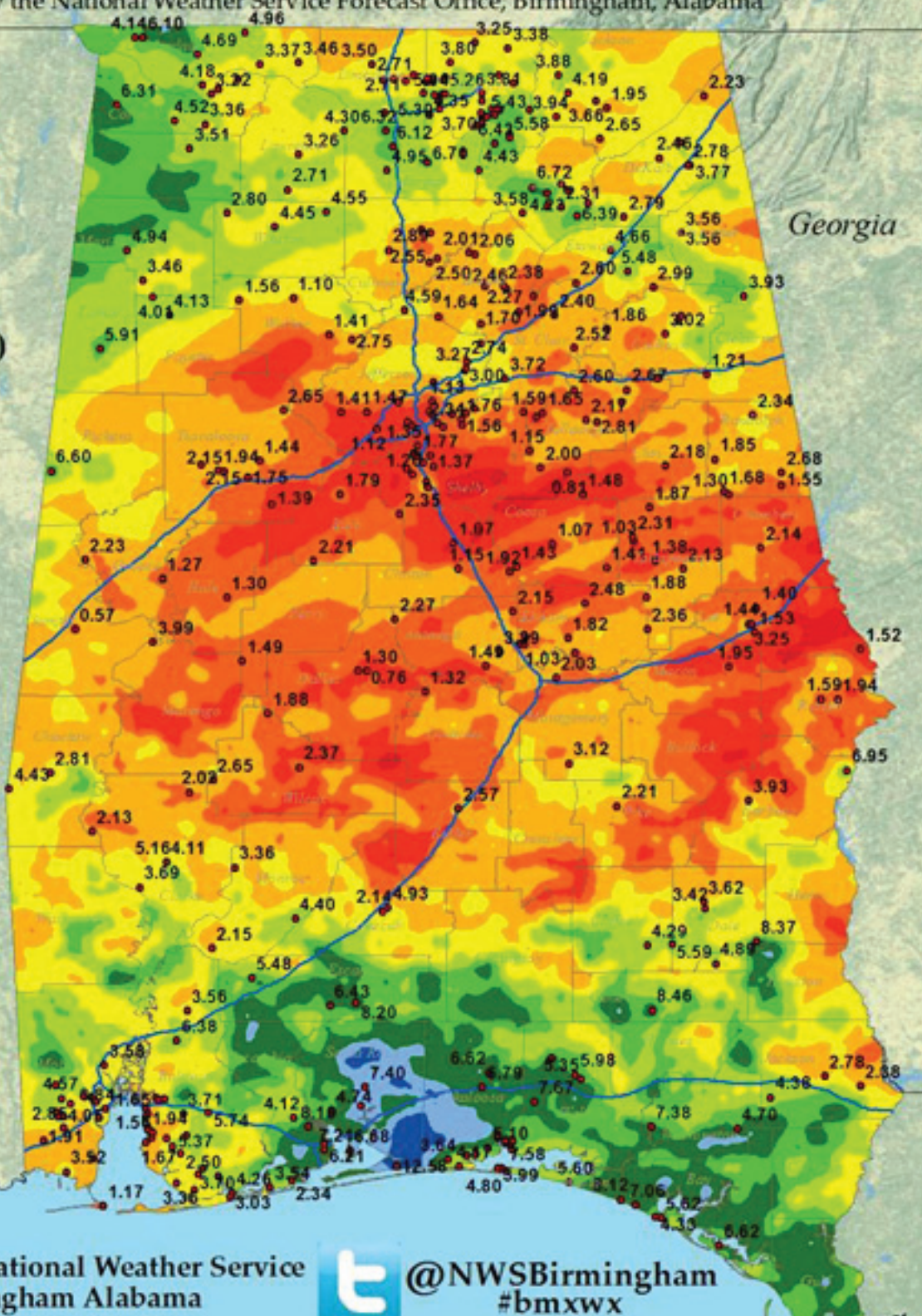
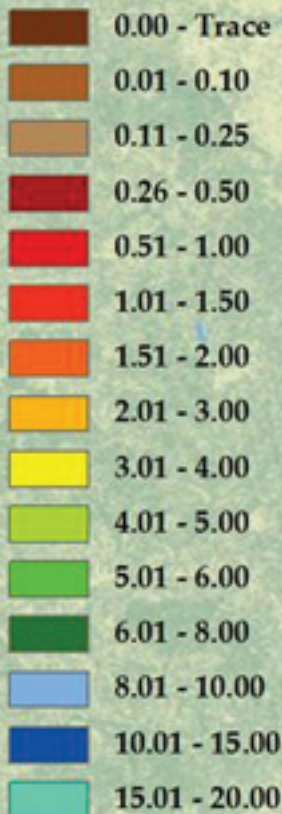
Source: Co-Op Sites, ASOS Observations, CoCoRaHS Observers, and RFC Estimates
Created by the National Weather Service Forecast Office, Birmingham, Alabama



Birmingham, AL

GIS

Rainfall (Inches)

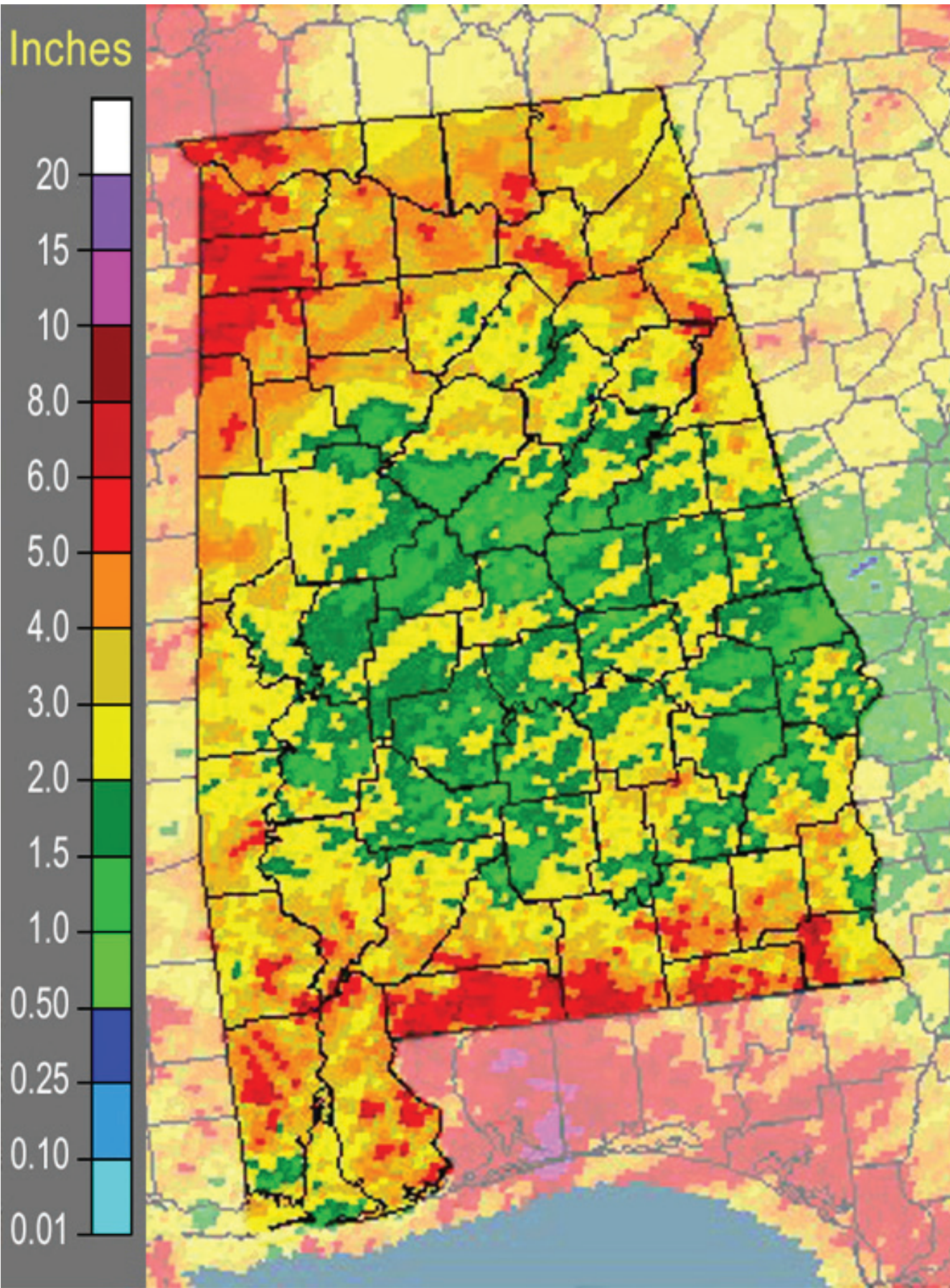


U.S. National Weather Service
Birmingham Alabama

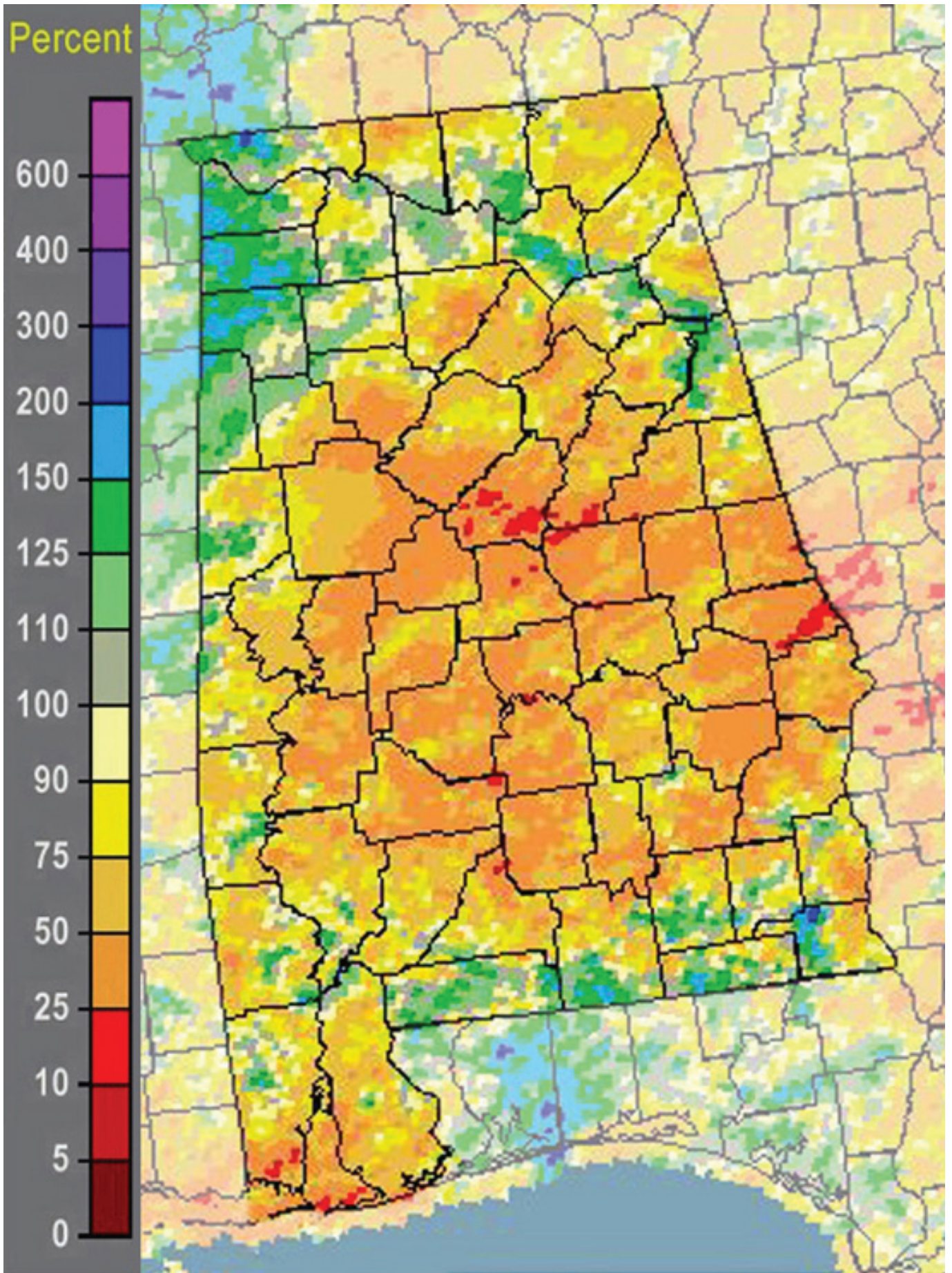


@NWSBirmingham
#bmwx

This map is an interpolation of actual reported values combined with RFC estimates and should be considered as an estimation only.
Rainfall totals are from 7am Sept 1st through 7am Oct 1st, 2013



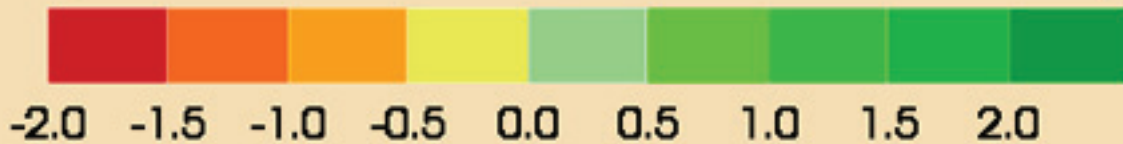
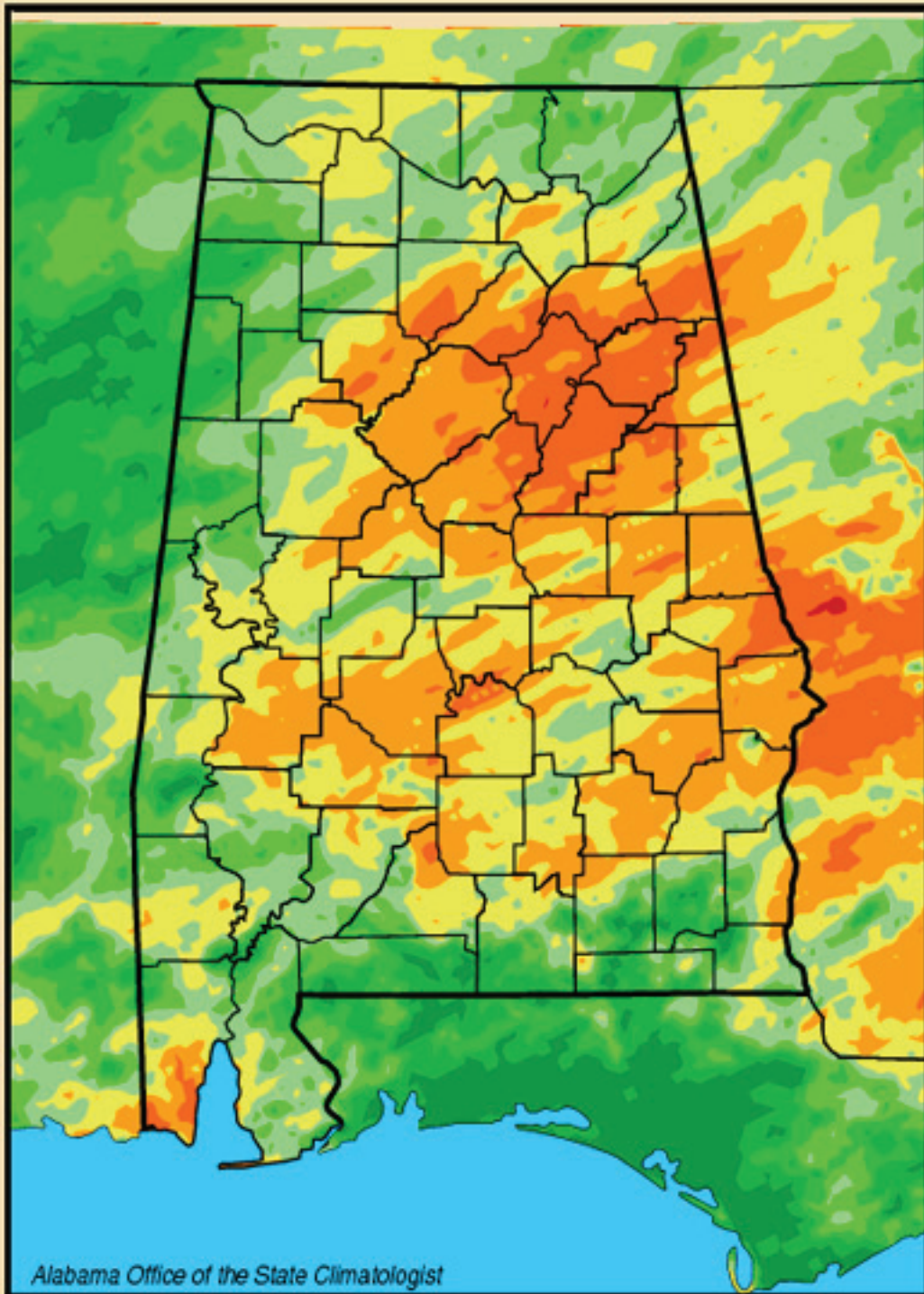
Sept. 2013 NWS multi-sensor precipitation estimate



water.weather.gov

Sept. 2013 NWS percentage of normal precipitation

Lawn-and-Garden Moisture Index for October 1, 2013



Alabama Monthly Climate Summaries

Sept. 2013

	Station Began	Sept. Mean Sept. Norm	Sept. Hi Temp Record Hi		Sept. Low Temp Record Lo		Total Precip. Normal Prec.	Wettest Sept. Driest Sept.		Heaviest Day Record Day	
Anniston	2/1903	74.2°	91°	9/9/13	53°	9/22/13	2.71"	7.22"	1975	1.75"	9/1/13
		73.8°	101°+	9/1/57	34°	9/30/67	3.32"	0.33"	1984	3.99"	9/21/95
Auburn	1/1893	73.9°	90°	9/16/13	54°	9/29/13	3.25"	10.19"	1956	1.67"	9/3/13
		75.9°	108°	9/5/25	34°	9/30/67	3.60"	0.36"	1919	6.48"	9/26/56
Birmingham	1/1930	75.3°	92°	9/9/13	54°	9/22/13	2.47"	10.43"	1977	1.42"	9/2/13
		73.8°	102°	9/19/31	37°	9/30/67	4.05"	0.16"	1984	3.70"	9/27/79
Brewton	4/1977	75.1°	92.1°	9/16/13	57°	9/21/13	5.15"	25.20"	1998	2.46"	9/24/13
		75.1°	101°+	9/15/72	32°	9/30/67	5.51"	0.90"	1995	9.30"	9/28/98
Calera	9/1900	76.8°	93°	9/9/13	58°	9/29/13	1.83"	12.75"	1906	0.71"	9/21/13
		73.6°	101°	9/15/80	33°	9/30/67	3.76"	0.07"	1955	7.05"	9/29/1906
Clanton	2/1893	73.3°	91.3°	9/1/13	52.1°	9/29/13	2.02"	10.30"	1979	1.42"	9/21/13
		73.0°	101°+	9/16/80	36°	9/30/67	4.66"	0.37"	1990	5.20"	9/28/79
Courtland		71.9°	90.2°	9/10/13	50.7°	9/23/13	3.43"			1.67"	9/21/13
		M	M		M		M	M		M	
Cullman	7/1907	70.6°	88.6°	9/6/13	51°	9/23/13	2.13"			1.36"	9/21/13
		M	M		M		M	M		M	
Decatur	2/1880	72.7°	92°	9/8/13	49°	9/23/13	3.52"	8.49"	1946	2.64"	9/20/13
		74.4°	104°	9/9/25	37°	9/27/1899	2.95"	0.11"	1901	4.34"	9/10/46
Dothan	2/1902	77.6°	93°	9/1/13	58°	9/28/13	8.37"	13.86"	1929	4.09"	9/23/13
		76.9°	100°	9/3/40	45°	9/29/67	5.02"	0.63"	1940	8.00"	9/30/29
Fairhope	8/1917	76.2°	90.2°	9/16/13	60.7°	9/28/13	1.85"	24.11"	1998	0.64"	9/3/13
		77.3°	100°	9/10/54	41°	9/30/67	5.97"	0.57"	1984	9.18"	9/28/98
Gadsden	7/1893	72.7°	91°	9/9/13	52°	9/29/13	3.04"	9.29"	1979	1.93"	9/2/13
		73.1°	102°	9/3/54	33°	9/30/67	4.13"	0.25"	1984	4.07"	9/22/58
Gainesville	6/1948	75.0°	94.5°	9/1/13	53.5°	9/15/13	2.13"	11.85"	1974	1.38"	9/24/13
		74.9°	102°	9/10/80	38°	9/30/67	3.61"	0.26"	1984	4.26"	9/5/49
Greensboro	2/1890	74.5°	94.1°	9/1/13	53.2°	9/15/13	1.65"	9.13"	1974	0.98"	9/24/13
		76.1°	104°+	9/5/54	39°	9/30/67	3.93"	0.58"	1984	4.79"	9/5/49
Guntersville	12/1904	72.8°	89.6°	9/1/13	57.8°	9/23/13	7.66"	11.07"	1977	4.80"	9/2/13
		72.2°	102°	9/4/54	38°	9/30/67	4.23"	0.12"	1984	4.06"	9/12/88
Highland Home	3/1892	74.6°	90.3°	9/1/13	55.7°	9/29/13	3.56"	13.19"	1975	1.86"	9/21/13
		74.7°	102°	9/11/80	37°+	9/30/67	4.03"	0.50"	1984	6.35"	9/26/53
Huntsville	1/1959	73.8°	93°	9/12/13	51°	9/22/13	4.35"	9.78"	1980	3.05"	9/20/13
		72.9°	101°	9/7/90	37°	9/30/67	3.94"	0.48"	1998	3.93"	9/25/80

Alabama Monthly Climate Summaries

Sept. 2013

	Station Began	Sept. Mean Sept. Norm	Sept. Hi Temp Record Hi	Sept. Low Temp Record Lo	Total Precip. Normal Prec.	Wettest Sept. Driest Sept.	Heaviest Day Record Day
Mobile	3/1900	79.8°	94° 9/16/13	62° 9/28/13	4.59"	24.13" 1998	1.81" 9/3-4/13
		77.2°	99°+ 9/4/90	42° 9/29/67	6.01"	0.74" 1984	8.60" 9/28/98
Montgomery	6/1948	78.2°	95° 9/3/13	57° 9/29/13	1.48"	9.47" 1998	1.03" 9/1/13
		76.3°	101°+ 9/10/80	39° 9/30/67	4.22"	0.81" 1984	8.72" 9/26/53
Muscle Shoals	12/1940	72.4°	92.5° 9/10/13	52.1° 9/15/13	2.77"	10.13" 1979	1.12" 9/21/13
		72.9°	103° 9/4/54	39°+ 9/23/82	4.30"	0.17" 1984	5.71" 9/13/79
Russellville	9/1953	70.8°	91.1° 9/9/13	46.7°	4.58"	10.06" 1975	2.35" 9/21/13
		71.2°	102°+ 9/6/54	30° 9/30/67	4.18"	0.34" 1999	5.33" 9/14/79
Scottsboro	10/1891	70.0°	90.7° 9/12/13	48.2° 9/14/13	3.00"	10.99" 1977	2.32" 9/21/13
		71.5°	105°+ 9/6/54	36°+ 9/27/40	4.81"	0.95" 1984	4.92" 9/28/79
Selma	1/1895	74.4°	92.7° 9/1/13	56.5° 9/15/13	1.19"	10.96" 1998	0.54" 9/24/13
		76.2°	105° 9/6/54	40° 9/30/67	3.87"	0.35" 1990	6.15" 9/29/98
Talladega	2/1888	72.2°	90.9° 9/1/13	52.2° 9/29/13	2.6"	8.04" 1979	1.51" 9/2/13
		71.8°	103° 9/4/54	35° 9/30/67	3.76"	0.40" 1976	4.00" 9/23/75
Thomasville	9/1891	74.0°	91.9° 9/1/13	32° 9/5/13	1.30"	13.42" 1998	0.76" 9/21/13
		76.2°	104° 9/11/80	39° 9/29/67	4.13"	0.07" 1984	7.30" 9/8/74
Troy	6/1908	77.5°	95° 9/16/13	53° 9/29/13	2.21"	13.29" 1998	0.78" 9/21/13
		75.8°	104° 9/8/54	38° 9/30/67	3.52"	0.63" 1978	7.46" 9/1/37
Tuscaloosa	6/1948	77.1°	94° 9/16/13	56° 9/15/13	0.49"	10.91" 2009	0.74" 9/20/13
		75.6°	104° 9/1/51	37° 9/30/67	3.48"	0.00" 1955	6.28" 9/3/01
Valley Head	1/1893	69.0°	86.3° 9/8/13	47.4° 9/14/13	3.01"	9.77" 1977	1.91" 9/21/13
		69.3°	100°+ 9/7/54	29° 9/30/67	4.27"	0.77" 1984	5.38" 9/17/60
Statewide Sept. 2013		74.4°	95° 2 stations	47.4° Valley Head	3.11"	25.20" Brewton	4.09" Dothan
Sept. Norm or Record		74.3°	108° Auburn	29° Valley Head	4.20"	0.00" Tuscaloosa	9.30" Brewton

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 Records¹

September 2013

Precipitation, Daily

	Period of Record	New Record	Previous Record	Previous Year
2 September 2013				
GUNTERSVILLE	108	4.03 in	1.65 in	1928
JACKSONVILLE	65	2.02 in	0.80 in	2004
GADSDEN	60	2.00 in	1.90 in	1976
WEISS DAM	31	2.08 in	0.31 in	1989
4 September 2013				
WALLACE 2 E	72	2.32 in	1.56 in	2007
21 September 2013				
ADDISON	75	2.04 in	1.73 in	2002
WADLEY	80	0.38 in	0.35 in	1943
22 September 2013				
COFFEEVILLE L&D	30	0.70 in	0.62 in	1998
ENTERPRISE 4 W	47	2.00 in	1.68 in	1994
GENEVA NO 2	37	3.15 in	0.95 in	1994

¹ <http://wf.ncdc.noaa.gov/extremes/records/>

Community Collaborative Rain, Hail & Snow Network (CoCoRAHS)

September 2013

	Ave. Total Precip.	# Stations
Autauga	2.36	3
Baldwin	2.99	28
Barbour	n.a.	0
Bibb	2.28	1
Blount	2.70	7
Bullock	n.a.	0
Butler	n.a.	0
Calhoun	2.60	3
Chambers	0.75	1
Cherokee	n.a.	0
Chilton	1.27	2
Choctaw	2.81	1
Clarke	4.68	2
Clay	n.a.	0
Cleburne	n.a.	0
Coffee	5.16	1
Colbert	4.37	7
Conecuh	n.a.	0
Coosa	1.48	2
Covington	n.a.	0
Crenshaw	n.a.	0
Cullman	2.64	3
Dale	5.10	2
Dallas	1.30	1
DeKalb	4.85	4
Elmore	2.39	8
Escambia	6.43	1
Etowah	4.86	1
Fayette	3.37	3
Franklin	n.a.	0
Geneva	n.a.	0
Greene	n.a.	0
Hale	n.a.	0
Henry	n.a.	0

	Ave. Total Precip.	# Stations
Houston	5.05	1
Jackson	4.47	7
Jefferson	2.07	13
Lamar	5.91	1
Lauderdale	4.29	11
Lawrence	4.30	1
Lee	1.26	4
Limestone	3.32	11
Lowndes	n.a.	0
Macon	2.08	2
Madison	4.49	60
Marengo	n.a.	0
Marion	3.46	1
Marshall	4.77	11
Mobile	3.66	19
Monroe	3.28	2
Montgomery	2.04	4
Morgan	5.53	8
Perry	n.a.	0
Pickens	2.07	1
Pike	n.a.	0
Randolph	2.68	1
Russell	1.80	2
St. Clair	3.09	3
Shelby	2.04	22
Sumter	n.a.	0
Talladega	2.73	6
Tallapoosa	2.00	4
Tuscaloosa	1.72	3
Walker	n.a.	0
Washington	3.40	1
Wilcox	2.51	2
Winston	4.50	2

Normal September Precipitation*

Abbeville.....	4.00"
Alberta	3.65"
Alex City	4.14"
Aliceville.....	3.41"
Andalusia.....	4.78"
Ashland	4.17"
Athens	3.74"
Bay Minette	5.93"
Bessemer	4.18"
Billingsley.....	3.56"
Centreville WSMO .	4.56"
Chatom	4.64"
Claiborne L&D.	3.83"
Clayton	4.12"
Dauphin Isl.	4.95"
Elba	4.27"
Eufaula WR.....	3.67"
Evergreen	4.02"
Fayette	3.50"
Geneva 2.....	4.28"
Greenville	4.02"
Haleyville	4.24"
Hamilton 3S	4.39"
Heflin	4.08"
Hurtsboro	3.10"
Jasper	4.16"
Lafayette	3.97"
Livingston	3.16"
Melvin	4.05"
Milstead	3.57"
Moulton	4.24"
Oneonta	3.66"
Perryville	3.65"
Plantersville	3.82"
Rock Mills	3.68"
Rockford	4.23"
Sylacauga	4.07"
Union Springs... ..	3.54"
Uniontown	2.99"
Vernon	3.84"
Warrior L&D	3.24"
Wetumpka	3.46"

*Southeast Regional Climate Center
www.serrc.com

Alabama Climate Report Climate Extremes

Hottest - Coldest

Statewide Average Temperature

http://www.sercc.com/climateinfo/monthly_seasonal.html

Record begins in 1895

Alabama Climate Report Climate Extremes

Wettest - Driest

Statewide Average Precipitation

http://www.sercc.com/climateinfo/monthly_seasonal.html

Record begins in 1895

Year-to-date

Hottest	1.	1925	69.21°
	2.	1921	68.79°
	3.	1927	68.71°
	4.	1911	68.42°
	5.	1938	68.29°
	6.	1932	68.24°
		2012	68.24°
	8.	1945	68.18°
	9.	1954	68.14°
	10.	1933	68.02°
	11.	1935	67.89°
	12.	1952	67.82°

January through
Sept.
2013

AVG 66.10°

34. 2013 65.32°

12.	1961	64.48°
11.	1969	64.47°
10.	1996	64.34°
9.	1960	64.32°
8.	1971	64.29°
	1968	64.18°
6.	1984	64.18°
5.	1979	64.10°
4.	1958	64.00°
3.	1978	63.96°
2.	1983	63.72°

Coldest 1. 1940 63.49°

Year to Date

Wettest	1.	1975	61.51"
	2.	1979	58.28"
	3.	1946	57.63"
	4.	2003	55.69"
	5.	1939	55.28"
	6.	1973	54.30"
	7.	1991	53.70"
	8.	2013	53.47"
	9.	1929	53.08"
	10.	1961	52.85"
	11.	2009	52.79"
	12.	1944	52.76"

January through
Sept.
2013

AVG 42.35"

12.	1968	32.52"
11.	1898	32.07"
10.	1986	31.57"
9.	1930	31.16"
8.	2000	30.57"
7.	1931	30.39"
6.	1914	30.02"
5.	1927	29.03"
4.	1925	28.56"
3.	2007	28.29"
2.	1904	28.01"

Driest 1. 1954 24.68"

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<http://nsstc.uah.edu/alclimatereport>