

SUGARCANE SUMMARY FOR CROP YEAR 2006

Benjamin L. Legendre
Sugarcane Specialist & Professor
LSU AgCenter
Sugar Research Station
St. Gabriel, LA

In 2006, sugarcane was grown on 433,577 acres (a decrease of 28,933 acres or 6.3% when compared to the 2005 crop) by 661 producers (a decrease of 33 producers or 4.8%) in 24 Louisiana parishes (counties). An estimated 403,402 acres (a decrease of 22,107 acres or 5.2%) were available for harvest for sugar, assuming 6.5% of the total acres were used for seed cane purposes. In the past, this figure was 8.0%. There was approximately 60,000 tons of cane (3,094 acres) left standing in the field in the Lacassine area of western Louisiana as a new syrup factory slated for operation in that area was not ready in time to process the entire 2006 crop prior to the closure of the factory receiving the syrup for crystallization into “raw” sugar. Because of the cane left in the field in the western area of the state, the actual acreage of sugarcane harvested for sugar was approximately 400,308 acres. The United States Department of Agriculture, Farm Service Agency, also reported that there were 2,346 failed acres across the state.

The 13 factories (12 raw sugar factories and 1 syrup factory) processed 12,434,452 tons of cane (an increase of 1,648,177 tons or 15.3% when compared to 2005). The sugar that was produced from the Lacassine syrup factory was crystallized at one of the 12 raw sugar factories. All total, the 12 raw sugar factories produced 1,260,986 short tons of sugar (96 pol) (an increase of 90,687 short tons or 7.7%). Accordingly, the average yield of cane produced per total acre (to include acres used for seed, abandoned and failed) was 28.7 tons (an increase of 5.4 tons or 23.2%). The average yield of cane produced from each harvested acre amounted to 31.1 tons (an increase of 5.5 tons or 21.5%). The yield of commercially recoverable sugar produced per total acre averaged 5,817 pounds (an increase of 756 pounds or 14.9%). And sugar produced per harvested acre was approximately 6,300 pounds (an increase of 754 pounds or 13.6.3%). The average sugar recovery at the 12 factories was 10.14% or 203 pounds of sugar (96 pol) per ton of cane; this was a decrease of 15 pounds of sugar per ton of cane or a decrease of 6.9% when compared to the 2005 crop.

The gross farm value of \$268,917,170 for sugar and molasses (a decrease of \$23,636,576 or 8.1% from the 2005 crop), in spite of the increase yields of tons cane per acre and commercially recoverable sugar per acre, have continued to plummet since the 2002 crop year when the state experienced two tropical systems prior to and during the harvest season and experienced losses in excess of 35%. Losses of this magnitude were again experienced by the industry in 2005 caused by Tropical Storm Cindy and Hurricanes Katrina and Rita. The main reason for the lower gross farm value in 2006 has been the steady decline in the prices paid for raw sugar while, at the same time, molasses prices have remained high. The gross farm value reported above represents 60% of the value of the sugar and 50% of the value of the molasses produced, with the remaining percentage going to processing and marketing. The total value of the sugarcane crop to Louisiana growers, processors and landlords at the first processing level is

actually \$453,269,527. The onset of allotments, the gradual reduction in sugarcane acreage, the residual effect of the tropical systems that occurred during 2005, especially in those areas that experienced salt water tidal surges, the keeping of older stubble, the reduced yield in the older stubbles of the leading variety, LCP 85-384, the persistent drought in several of the cane producing parishes, the subfreezing temperatures that occurred throughout the sugarcane belt the first week or more of December and the unprecedented late season rain fall are, undoubtedly, responsible for reduced yields in 2006 even though the current crop was the best in yield of commercially recoverable sugar per acre since the 2003 crop. Even with the reduction in gross farm value, sugarcane still ranks first amongst row crops grown in the state.

The total area planted to sugarcane of 433,577 acres for the 2006 crop was the smallest area since 1998 when 425,000 acres were planted. Although the residual effect of the 2002 and 2005 tropical systems were minimal, many producers still had to plough out unproductive fields of LCP 85-384 in the spring of 2006. Approximately 72% of the 2006 crop was still planted to LCP 85-384, which has shown a significant decline in yield each year since the 2002 crop. Further, data obtained during the last three years has shown this variety is very susceptible to common brown rust which was shown to reduce the yield of LCP 85-384 by as much as 7 tons of cane per acre in the heavier infected areas. The amount of plantcane continued to rebound in 2006 with approximately 29.8% which, undoubtedly, helped to boost overall yields. There was only 41.8% of the crop in second stubble and older; however, 88% of this was planted to LCP 85-384.

The 2006 crop year was one of contrast with regards to weather conditions. Temperature, as an average for all state reporting stations, was above normal for 6 of the 12 months, especially during the months of January (+6°), March (+2°) and April (+5°). Only in February was the temperature below normal by more than 1° when it was 3°. For the remainder of the year, the average monthly temperatures did not deviate from normal by more than 1°. Rainfall, as an average for all state reporting stations, was below normal for 8 of the 12 months and above normal for only 4 months (February, July, October and December); however, two of those months were during the grinding season, when the industry would like to see below normal rainfall.. Generally speaking, with the warm and dry winter and spring weather, the crop was off to an excellent start; however, much of the state had droughty conditions that persisted well into the summer resulting in below normal growth of the crop in several areas, especially western Iberia Parish and most of Pointe Coupee and northern Iberville. Fortunately, there was adequate rainfall in July that helped to provide moisture for growth for the remainder of the state. There were no tropical systems that affected the crop; however, there were several periods of thunderstorms and heavy rainfall during the months of October and December that caused much of the crop to lodge and caused difficulty in the harvesting operations. Then during the first nine days of December, most of the sugarcane belt experienced subfreezing temperatures that ranged from lows of 25°F in Terrebonne and Lafourche Parishes in the south to 19°F in the Iberville, Pointe Coupee, Avoyelles and Rapids Parishes in the north. Fortunately, most of the cane was harvested with the exception of the Lacassine area, albeit with lower sugar recovery as a result of deterioration caused by the freeze damage and loss of sugar caused by the excessive trash because of the wet weather.

Because of the low field yields, especially in older stubble, and/or the cost of operating the combine system, many growers reverted back to harvesting by the whole-stalk or “soldier” system in an effort to reduce cost. Those growers that had the capability to harvest by the whole-

stalk system also had an advantage following the freeze when it was recommended that the top 12-18 inches of the top of the stalks be removed because of freeze damage. The whole-stalk harvester has a positive topper whereas the combine harvester has a stand alone topper that can only remove tops in erect cane.

Rust did not appear to be much of a factor in reduced yields during 2006 and many producers reported that yields of LCP 85-384 rebounded even in the older stubble crops. However, most producers have begun to plant the newer varieties, namely, Ho 95-988, HoCP 96-540, L 97-128, L 99-226 and L 99-233, which have superior yield in both tons of cane per acre and commercially recoverable sugar per acre to LCP 85-384. There was only limited planting of LCP 85-384 in 2006.

Sugar prices are at their lowest level in many years (<\$20.00/cwt). Although field yields were much improved in 2006, growers and millers may still have economic problems because of the low price. On the other hand, molasses prices are averaging over \$0.40 per gallon and are expected to remain firm till the end of the pricing period for the 2006 crop.

PLANT COMMODITIES - 2006

<u>Commodity</u>	<u>Gross Farm Income</u>	<u>Value Added</u>	<u>Total Value</u>
Sugarcane ¹	\$268,917,170	\$184,352,357	\$453,269,527

¹ Includes raw sugar and molasses

SUGAR RESEARCH STATION 2006 CLIMATE REVIEW

John M. ('Jay') Grymes III
LSU AgCenter Climatologist

2006 was a "warm" and "dry" year for St. Gabriel and the East Iberville Parish area, with an annual average temperature of 68.9°F (30-year normal: 67.1°F) and rainfall totaling 52.8" (30-year normal: 59.4") for the year. "Warm-and-dry" has become a pattern for the area in recent years, as 2006 is the third consecutive year with an annual temperature more than 1° above the norm.

Temperatures are important, but rainfall and its annual and seasonal variability are the key drivers when defining weather and climate for locations in Louisiana. For St. Gabriel, 2006 was the second straight year -- and third year in the past four -- with below-average annual rainfall. 2006 rainfall was significantly below-normal for six months of 2006, with St. Gabriel's monthly totals for March (0.20") and June (0.41"E) proving to be the lowest monthly totals for those two months since records have been maintained (1984-current).

2006 rainfall deficits, combined with warmer-than-normal weather for much of the year, produced an extended run of drought for the area (see Figure 1). According to the *U.S. Drought Monitor*, nearly half of 2006 was rated as "in drought" (D1 - D3) at St. Gabriel, with fewer than 12 weeks during the year rated as "near-normal to moist." Drought conditions began in April and extended through most of August, with "extreme drought" (D3) persisting through the month of June. The summer drought was further intensified by runs of oppressive heat: daily maximum temperatures reached or exceeded 95°F on 39 dates between June and August, with highs at or near 100°F on several dates (normal summer highs are in the low 90°s).

The first quarter of 2006 was mild-to-warm and dry. January rainfall was less than half the norm, and temperatures were unusually mild, averaging more than 6° above the January norm. February was also on the "dry" side, with temperatures averaging about normal for the month. A record-dry March was also 3° warmer-than-normal. The area saw only eight freezes during the first quarter of 2006 -- only about half the average number expected -- and only one "hard" freeze (February 13: 26°).

A "dry" March set the stage for the onset of the spring-summer drought, and the area reported little measurable rain through the first three weeks of April as the *Drought Monitor's* drought ranking stepped from D1 to D3. But two strong, stormy fronts during the final week of April dumped more than 8" of rain at St. Gabriel, producing localized flooding and briefly easing the moisture deficits. However, with more than 5" of that rain falling in just a few hours (April 29-30), much of that rainwater simply 'ran-off' -- the downpours exceeded soil infiltrations rates.

It is worth noting that the dry weather during the first third of 2006 was not the result of a complete lack of frontal weather (the primary source of winter-spring rains), but simply that most of the passing fronts tended to be unproductive in terms of rainfall amounts. Review of the ENSO (El Niño/Southern Oscillation) status in early 2006 suggests that a weak La Niña was in place, and history shows that La Niña events tend to produce "dry" winters and springs for south Louisiana.

A "warm-and-dry" May was followed by June heat and record-low June rainfall (based on St. Gabriel's 23-year record), resulting in a return to D3 drought (Fig. 1). Although monthly rains during both July and August were near-normal, runs of extremely hot days kept moisture demands high. Still, the return of more typical summer rains slowly eased the intensity of the drought during the mid-to-late summer weeks. Modest environmental and agricultural moisture shortages extended into and through September, but *Drought Monitor* rankings indicate that the spring-summer drought was "officially" ended by late August.

Slightly-below normal rain in September and a "dry" first half of October kept the region under a D0 rating ("Abnormally dry") according to the Drought Monitor, but "wet" weather during the latter half of October brought St. Gabriel into a period of moisture surplus and ended the drought threat for the remainder of the year.

Fortunately, Louisiana was spared from tropical-weather threats during 2006. While most experts anticipated another very active hurricane season following the Katrina and Rita nightmares of 2005, such was not the case. In fact, Atlantic tropical activity for the 2006 hurricane season was near-normal (5 tropical storms and 5 hurricanes), with only one storm (T.S. Alberto) passing through the Gulf. Hindsight suggests that ENSO likely played a role in the reduced storm counts. The weak La Niña of early 2006 was rapidly replaced by a moderate El Niño by late summer, and tropical activity in the Atlantic tends to be reduced when the ENSO phase is in an El Niño pattern during summer and fall. Pre-season hurricane forecasts had failed to anticipate the mid-year ENSO phase 'flip-flop,' leading most prognosticators to over-forecast storm numbers for the 2006 season.

Once again, the weather turned "dry" during November, but mild-to-cool temperatures for the month meant relatively low moisture demand. A pair of light, brief freezes were recorded on November 21-22, with the morning low on November 22 slipping to 30°F. December opened with an unusual ten-day run of lows near or below freezing, including three mornings with "hard" freezes (26°F or below). But temperatures for the remainder of December tended to be above the norm, with only one light freeze recorded after the early-month freeze spell. More notably was the 11.0" of rain for the month, accounting for more than 20% of 2006's annual total and making December 2006 the "wettest" month at St. Gabriel since June 2005.

Notes:

Rainfall data for the Sugar Research Station are collected as part of the National Weather Service (NWS) Cooperative Observation program. Temperature data for St. Gabriel were derived from the daily NWS Cooperative record from nearby LSU AgCenter Ben Hur Farm (approx. 8 miles NNW). Supplemental observations from the LSU AgCenter's Louisiana Agrilclimatic Information System (LAIS) station at the Sugar Research Station were incorporated where appropriate.

Data Sources:

LSU AgCenter / Louisiana Agrilimatic Information System: www.lsuagcenter.com/weather.

LSU Southern Regional Climate Center: www.srcc.lsu.edu

U.S. Drought Monitor: www.drought.unl.edu/dm/index.html

Figure 1: Weekly U.S. Drought Monitor categories for the vicinity of St. Gabriel/LSU-Sugar Research Station. St. Gabriel was classified as experiencing "Moderate" (D1) to "Extreme" (D4) drought throughout most of the summer of 2006.

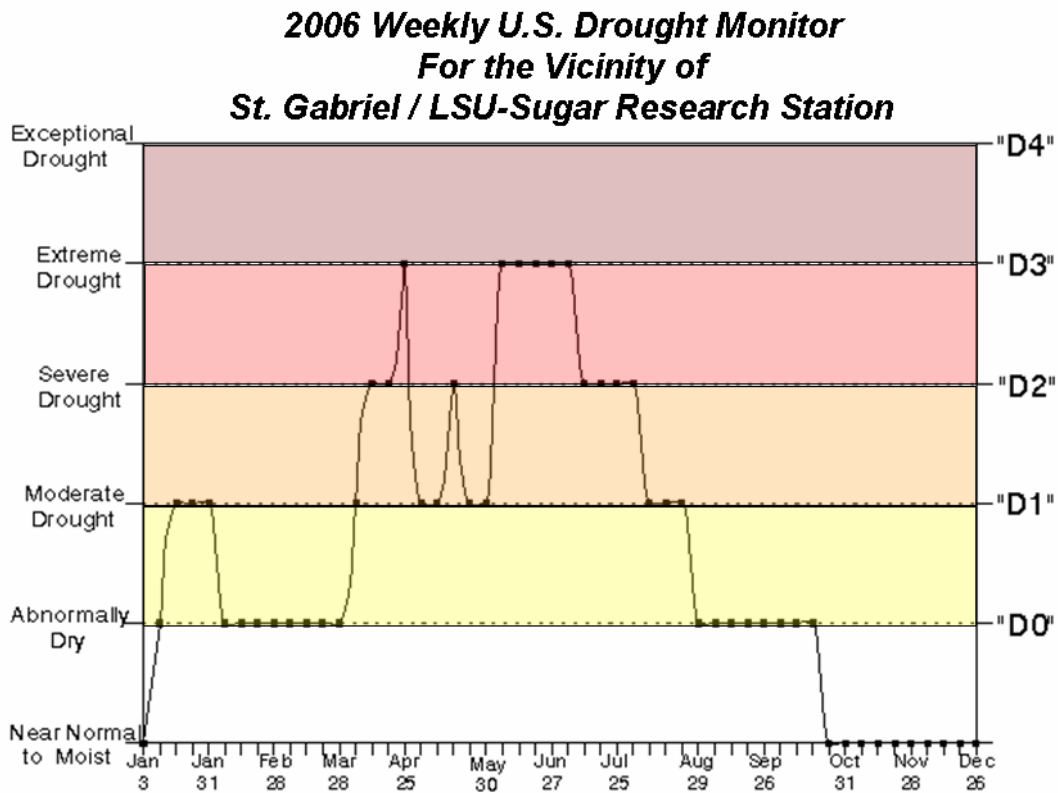


Table 1: Daily Max/Min Temperatures (LSU-Ben Hur Farm NWS Cooperative Station)

Year:2006		Observation Time:0800																																		
Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec																								
1:	77	42	69	38	76	49	83	64	84	57	92	68	97	71	95	75	87	65	86	66	83	58	80	32												
2:	80	66	74	52	80	49	85	65	85	60	94	72	94	72	93	73	87	66	92	68	83	49	52	32												
3:	81	44	77	52	83	49	81	63	88	63	92	70	90	72	95	73	90	67	89	66	64	39	58	35												
4:	79	40	77	40	77	45	85	60	86	65	91	62	88	74	96	75	92	68	92	65	66	42	57	31												
5:	78	42	59	31	75	48	83	55	86	64	92	63	85	74	97	73	89	67	92	67	71	44	58	24												
6:	64	38	72	42	78	49	85	59	85	66	93	65	89	74	95	72	90	66	93	67	77	55	58	28												
7:	55	27	74	36	80	47	86	60	82	67	94	70	93	74	89	71	91	64	86	55	78	55	68	35												
8:	64	40	58	30	80	49	87	57	80	66	89	68	90	74	94	73	93	67	84	50	72	48	60	25												
9:	74	49	65	40	79	59	77	47	87	68	96	68	90	72	95	74	94	69	85	53	77	52	47	23												
10:	79	54	62	39	77	57	77	42	88	74	97	68	89	74	95	71	85	70	85	57	82	53	54	33												
11:	72	39	67	38	82	65	82	46	90	63	96	70	87	72	95	73	88	70	86	67	82	58	68	46												
12:	67	37	51	29	84	70	83	52	79	51	96	72	92	72	94	73	87	73	83	56	59	38	77	55												
13:	69	49	48	26	85	65	84	53	81	57	100	69	93	74	94	73	91	73	85	55	66	39	78	60												
14:	69	38	59	31	84	55	87	53	86	62	92	69	95	73	94	75	90	68	75	51	68	49	75	51												
15:	62	34	69	44	70	43	86	54	80	60	94	70	95	73	96	75	90	66	81	57	73	53	70	49												
16:	68	43	75	54	71	49	85	63	78	52	95	74	94	73	99	75	91	69	78	65	74	44	70	45												
17:	72	52	78	56	73	59	87	67	80	52	94	74	95	74	99	75	93	73	85	71	58	36	72	45												
18:	55	29	62	47	81	52	92	67	82	54	93	74	95	73	95	72	89	76	89	65	65	37	75	48												
19:	61	35	48	37	64	53	93	65	87	69	94	73	96	73	94	74	86	72	90	71	67	42	67	59												
20:	69	50	47	39	75	57	88	62	90	64	94	68	95	73	95	74	86	58	79	53	60	34	66	59												
21:	68	60	52	43	80	51	90	64	87	58	93	73	95	71	96	75	84	55	72	53	55	32	68	62												
22:	67	58	67	49	74	43	82	63	88	64	94	73	95	73	96	76	83	67	79	59	59	30	72	58												
23:	75	47	81	63	64	42	88	62	90	66	96	73	96	74	96	75	91	77	66	46	66	32	59	40												
24:	59	47	69	48	62	40	90	55	91	68	95	72	87	72	93	73	92	74	67	40	71	35	64	44												
25:	65	37	62	50	62	30	90	62	90	67	97	72	86	72	91	72	83	63	74	44	75	37	58	46												
26:	67	40	60	45	67	39	89	67	91	67	95	72	84	72	93	73	80	55	75	60	75	42	49	37												
27:	55	42	65	33	70	38	79	53	93	68	92	72	91	75	82	73	81	54	76	57	76	52	50	30												
28:	69	49	67	38	78	50	80	55	90	71	93	67	93	75	92	72	85	57	76	54	76	55	58	35												
29:	74	59	--	--	77	58	85	61	90	71	90	64	95	67	92	74	86	57	69	45	80	61	68	50												
30:	76	49	--	--	81	60	81	64	92	69	94	70	95	69	95	73	80	61	75	49	79	66	74	58												
31:	71	33	--	--	83	65	--	--	90	68	--	--	96	74	89	66	--	--	80	56	--	--	69	53												
Max Temperature																																				
Avg Max:																																				
	69.1	64.8	75.9	85.0	86.3	93.9	92.1	94.0	87.8	81.4	71.2	64.5																								
DFN:																																				
	+8.7	+0.7	+4.6	+7.3	+1.6	+4.2	+0.7	+2.5	-0.2	+1.2	+0.4	+1.1																								
Min Temperature																																				
Avg Min:																																				
	44.2	41.8	51.1	58.7	63.6	69.8	72.7	73.3	66.2	57.7	45.6	42.8																								
DFN:																																				
	+4.5	-0.7	+1.8	+3.4	-0.2	+0.3	+0.7	+2.0	-0.9	+2.1	-2.3	+1.0																								
Daily Means																																				
Avg Avg:																																				
	56.6	53.3	63.5	71.8	75.0	81.9	82.4	83.6	77.0	69.5	58.4	53.7																								
DFN:																																				
	+6.5	0.0	+3.2	+5.3	+0.7	+2.3	+0.7	+2.2	-0.6	+1.6	-1.0	+1.1																								

Data provided by the LSU Southern Regional Climate Center

Table 2: Daily Precipitation (St. Gabriel NWS Cooperative Station)

Year:2006 Observation Time:0800

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.46
2:	0.00	1.33	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00
3:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5:	0.00	0.00	0.00	0.00	0.02	0.00	0.98	0.00	0.00	0.00	0.00	0.00
6:	0.00	0.00	0.00	0.00	0.00	0.00	0.71	0.00	0.00	0.00	0.00	0.00
7:	0.00	0.01	0.00	0.00	0.50	0.00	0.55	0.80	0.00	0.00	0.92	0.00
8:	0.00	0.00	0.00	0.00	0.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.00
10:	0.00	0.00	0.05	0.00	0.00	0.00	0.00	1.08	0.00	0.00	0.00	0.01
11:	0.00	1.20	0.00	0.00	0.00	0.00	0.53	0.00	1.00	0.00	0.00	0.00
12:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.40	0.00	0.00	0.00
13:	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00E	0.00	0.00	1.40
14:	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.00	0.00
15:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00
16:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.45	0.00	0.00
17:	0.55	0.00	0.10	0.00	0.00	0.03	0.05	0.90	0.30	0.52	0.00	0.00
18:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00
19:	0.00	0.27	0.00	0.00	0.00	0.20E	0.00	0.00	0.53	0.25	0.00	0.00
20:	0.00	0.00	0.00	0.00	0.00	0.15	0.00	0.00	0.00	0.84	0.00	0.00
21:	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.68
22:	0.00	0.00	0.00	0.50	0.00	0.00	0.00	0.00	0.00	2.80	0.00	2.97
23:	1.15	0.00	0.00	0.00	0.00	0.00	1.40	0.27	0.00	0.00	0.00	0.00
24:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.48	0.00	0.00	0.00	0.00
25:	0.00	0.00	0.00	0.00	0.00	0.00	0.32	0.40	0.20	0.00	0.00	0.45
26:	0.00	1.62	0.00	2.98	0.00	0.00	0.17	0.00	0.00	0.00	0.00	0.00
27:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.07	0.00	0.00
28:	0.00	0.00	0.00	0.00	0.70	0.00	0.42	0.00	0.00	0.00	0.00	0.00
29:	0.40	--	T	0.00	0.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30:	0.00	--	0.00	5.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.75
31:	0.00	--	0.00	--	0.10	--	0.10	0.00	--	0.00	--	4.28
Monthly Total:												
	2.70	4.43	0.20	8.58	2.65	0.41E	5.43	5.03	3.53	5.93	2.92	11.00
Monthly Normal:												
	5.58	5.17	4.89	4.35	4.56	6.06	5.49	5.08	4.52	4.09	4.43	5.14
Monthly DFN:												
	-2.88	-0.74	-4.69	+4.23	-1.91	-5.65	-0.06	-0.05	-0.99	+1.84	-1.51	+5.86
Annual Total: 52.81E												
Annual DFN: -6.55												

(E) - indicates 'estimated' value
(T) - indicates 'trace' of rain (less than 0.01")

Data provided by the LSU Southern Regional Climate Center