Historically parched



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The floating boundaries of the swimming area at Twelve Mile Beach near Clemson lie stranded on the sand Tuesday next to Lake Hartwell, which is nearly 8 feet below full pool because of the 2016 drought in the Upstate.

Rainfall totals show driest stretch in 120 years

BY STEPHANIE JADRNICEK
THE JOURNAL

CLEMSON — For about 120 years, a long line of Clemson University faculty members has been laboriously recording local rainfall totals on a daily basis.

Agriculture meteorologist Dale Linvill assumed this duty in 1984, and he recently announced some astounding news.

From January through October 2016, only 25.93 inches of rain fell on Clemson's LaMaster Dairy Center, where the university gauges that provide rainfall amounts to the National Weather Service are located. Dating back to mid-1896, this represents the lowest January-October stretch of rainfall that has ever been recorded for the area.

"This is really, really low — the lowest on record in all those years," Linvill said recently. "In this calendar year, we're down 18 inches from our typical yearly average of about 53 inches, which is lower than we've ever been before. Assuming we get no more rain through the end of October, this 10-month stretch will set the benchmark."

The driest full calendar year was 1925, when the area had 34.31 inches of rain, down almost 19 inches from average. With the outlook for wintertime rains resuming in mid-November, 2016 will come close to breaking the 1925 record. Regardless, it will go down as one of the driest years on record.

As a point of reference, the wettest year was 2013 at 80.86 inches,

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up more than 27 inches from average.

"That shows you how climate can change in a hurry," Linvill said. "Now we need to ask the questions, 'Are we going to get out of this or are we looking at the potential for a multi-year drought?' The climate models are predicting higher-than-normal temperatures this winter. And although precipitation is harder to predict, models are indicating slightly lower-than-average rainfall. Let's hope this outlook is wrong."

Extremely dry conditions plagued the Upstate starting in late May of this year and then crept down into the middle of the state in early July. In the Upstate, hundreds of acres of dryland corn that looked fabulous just a month or so before harvest ended up suffering serious damage.

The Upstate also received virtually no rain from Hurricane Matthew, which inundated portions of the state on and near the coast with up to 15 inches of rain. To put that in perspective, the most severely hit areas received only 11 inches less rain in about a 24-hour period than Clemson has received in the past 7,000-plus hours.

"From an agriculture standpoint, the biggest problem we had here in the Upstate is that we grow crops on the top 2 1/2 feet of soil. And when water fills the soil, about 3 inches of water are available for plants to use," Linvill said. "So when half or more of that water disappears because of drought, unirrigated plants start to show signs of stress.

"We had a spell from June through August where there were 71 straight days when the soil moisture was less than 50 percent. Then we had a big rain that temporarily took it back up. But this was followed by another 56-day stretch of less than 50 percent. We even had 27 days this summer when the soil moisture was less than 30 percent, which can devastate crops."

Area farmers are hoping that normal rainfall will return soon. If so, the damage caused by 2016's ultra-dry conditions in the Upstate could be remedied in time for this spring's crops to get off to a good start. Rain is also needed to restore area lake levels. Lake Hartwell, for instance, is almost 8 feet below its full pool of 660 feet.

"Groundwater levels are still good, so if rain does come, the outlook for the Upstate will be a lot brighter than it is now," Linvill said. "Winter months are typically rainy, because a series of cold fronts from the north set off showers down here. And man, do we need that rain. We've suffered through the driest 10-month stretch on record, and it's time for Mother Nature to put a stop to it."

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