Cooperative Extension Service · University of Kentucky · College of Agriculture · Lexington, KY, 40546

UKAg Weather Center | Weather Observer

July 5, 2013 BAE

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June 2013 Monthly Summary

It was a wet June across the Commonwealth with an average of more than 6 inches drenching the state. This total ended up being over 1.5 inches above normal, in a month where only 4.34 inches is normal. This made for the 11th wettest June on record going back to 1895, as three of four weeks witnessed above normal precipitation. June of 1928 still holds the record with 10.89 inches pummeling the Bluegrass State. The month started off with a slow moving cold front drifting south through the state. The western portions of Kentucky saw the most rainfall with this system as Paducah saw nearly 6 inches in one day, which is more than what they had saw for the entire summer of 2012. Extensive flooding ensued with many locations observing flash floods. Figure 1 below was taken from the NWS in Paducah and shows extensive flooding along U.S. Highway 60 in Paducah.

Figure 1

The last week of the month also brought soaking conditions. The Bluegrass Region saw an average of almost 3 inches fall over the course of the week, with most coming as an upper level disturbance slid across the region on the 26th. Accompanying this event was the second severe weather event of the month. A line of strong to severe thunderstorms produced damaging winds and heavy rainfall, in addition to a couple tornados. An EF2 touched down in LaRue County, damaging several barns at a dairy farming operation. Below is a picture from the NWS office in Louisville showing just one example of wind damage across the area.

Figure 2

Temperatures remained roughly around normal, but there were instances of temperatures becoming exceedingly warm. The first heat wave occurred the second week of the month as a dome of high pressure settled just east of the region. Gusty, southwesterly flow put temperatures into the low to mid 90s across the entire state. This, in combination with moisture pushing north from the Gulf, resulted in heat indices approaching the century mark. Each week from then and throughout the rest of the month had max temperatures topping out in the low to mid 90s at some point.

While it did get warm on occasions, this June was cool compared to last year. Putting all of the above information together, this month can be seen as the direct opposite as last year at this time. Highs

averaged in the mid to upper 80s at the end of June this year, while they were in the mid to upper 90s last year. Max high temperatures over the last week of June in 2012 ranged from 106 to 110 across the state. In some places, max highs were 30 degrees cooler on June 30th this year compared to 2012 (NWS Paducah). As stated above, the Bluegrass State ended the month with an average of 6.01 inches falling across Kentucky. This was a flood in comparison to the meager 0.88 inches saw across the state last year.

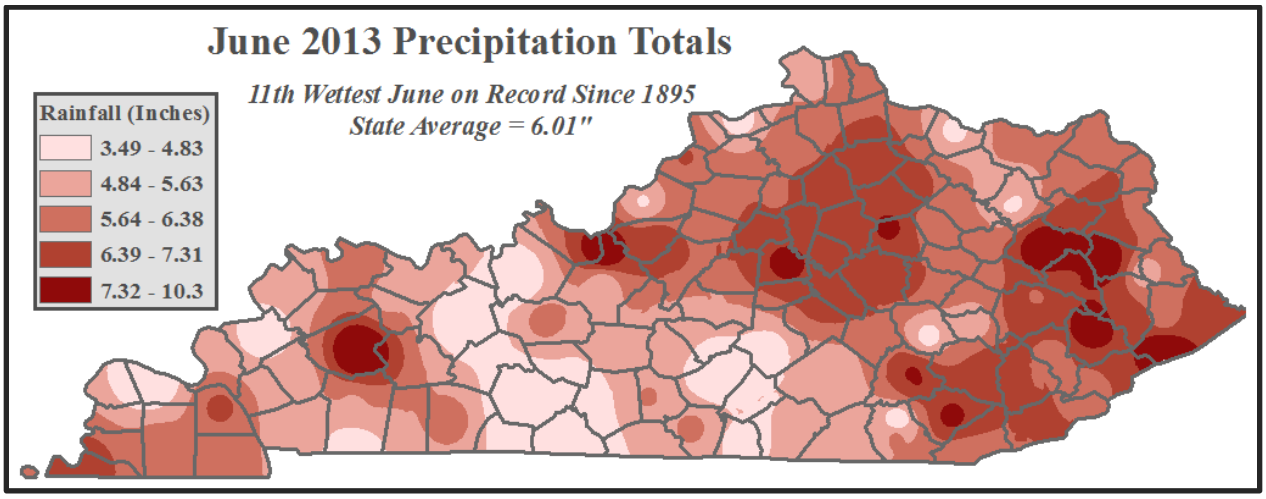


Figure 3

Summarized and averaged data for the period 20130601 to 20130630 (Last 30 Days)
(Not for Legal purposes. Departure from Norms based on climate divisional Averages)

	AIR TEMPERATURE						PRECIPITATION			ExtremeTemp	
STATION	MAX	DEV	MIN	DEV	AVR	DEV	TOTAL	DEV	%NORM	HI	LO
WEST (CD1)	84	-2	66	3	75	1	7.39	3.08	171	100	48
CENTRAL (CD2)	83	-1	64	2	74	1	4.72	0.29	107	95	49
BLUEGRASS (CD3)	82	-1	63	2	72	0	6.09	1.66	137	93	48
EAST (CD4)	82	-1	63	4	73	2	5.86	1.36	130	93	49
STATE	83	-1	64	3	74	2	6.01	1.59	136	100	48

Data obtained from KY Mesonet and NWS Station

Forecast

After a very wet and soggy work week, conditions will continue to remain wet heading into the weekend. A couple more opportunities exist for widespread showers and embedded thunderstorms as the state continues to be under the influence of an upper level trough. Any thunderstorms that do form will be capable of producing torrential rainfall as the Commonwealth remains in a very moist air mass. Models are still suggesting rainfall totals of 1.5 to over 2 inches for the eastern half of the state through the weekend. The upper level trough will finally break down going into the upcoming work week with a return to summer-like conditions.

After a weekend with below normal temperatures in the upper 70s to low 80s, highs will increase into the mid 80s to around 90 by Monday. While chances of rainfall will not be as high early next week, daytime heating will still allow for isolated to scattered chances. This comes just before a cold front brings another possible round of widespread rainfall to the region later in the week. Bottom line is that the Bluegrass State is primed to stay in an extended period of wet conditions.

3 Month Outlook (JAS)

Above Normal Rainfall and Near Normal Temperatures

In addition to the wet weather this coming week, all the long range outlooks are hinting at the possibility of above normal rainfall. This is true for the 6 -10 and 8 – 14 day outlooks, in addition to the 1 month (July) and 3 month (JAS) outlooks. As of today (7/5), the Bluegrass State has already seen an average of 1.41 inches of rainfall. The monthly normal for July is around 4.5 inches across the state. Temperatures this month have also been well below normal for this time of the year. Throughout the month of July, normal highs are in the mid to upper 80s with lows only getting down into the mid to upper 60s.

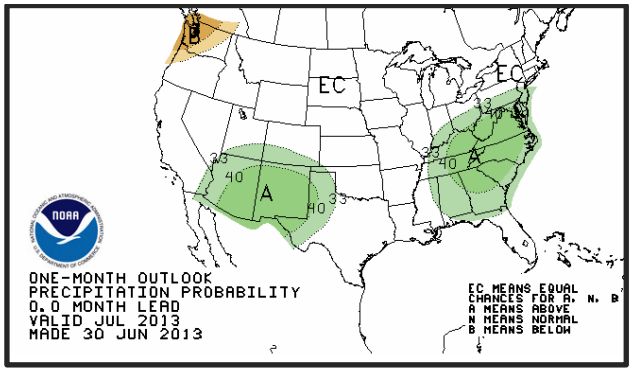
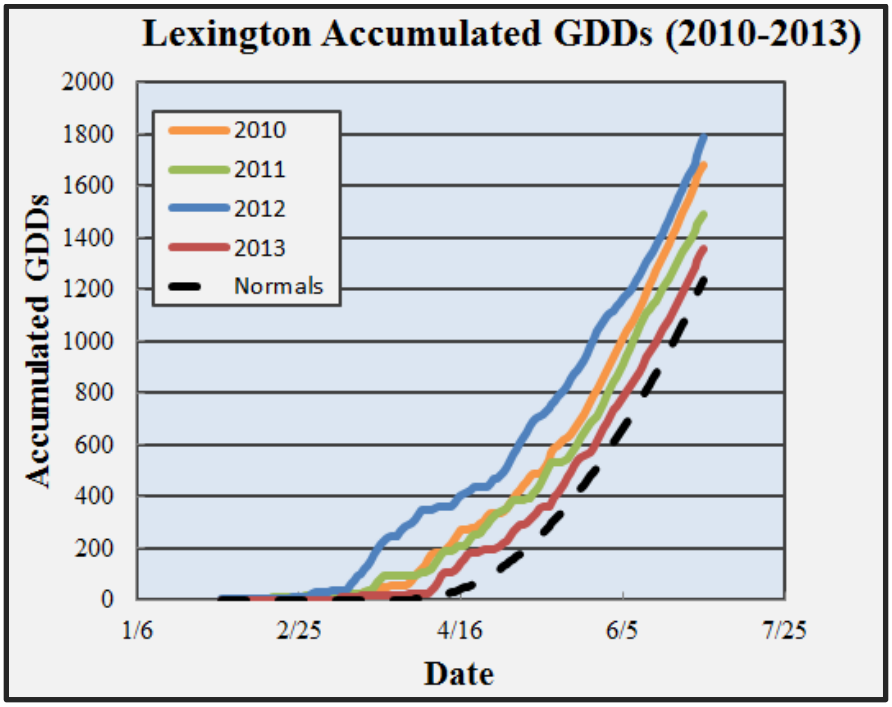


Figure 4

Comparison of Growing Degree Day Accumulations Since 2010

Figure 3 below is a comparison of accumulated growing degree days (GDD) over the past 4 years at Lexington. This data is all based off of a base temperature of 50° F. This growing season has been marked by a delay in planting and harvesting as either it has been too cold or wet. While most corn was delayed due to the wet and cool weather, a delayed winter wheat harvest has delayed the onset of double crop soybean planting. While it was cool earlier in the season, the accumulation of GDDs has actually been above normal in comparison to GDD normals between 1981 and 2010. In fact, this has been the case the past 4 years with the most prominent coming in 2012 when the Commonwealth experienced a very early spring and extremely warm temperatures in late June. This may play a factor in the feeling this season appears late compared to past years. The differences can really be seen if the dates around March and April are taken into account. Lexington reached 200 GGDs by March 22nd last year, while it was not until April 27th this year. As of the end of June, the city is 433 GDDs behind last year's pace.



Other News

The Community Collaborative Rain, Hail, and Snow Network (CoCoRaHs) is currently looking for more observers across the state of Kentucky. Observers are asked to record daily measurements of rain or snowfall accumulations. New to 2012, observers can now take readings of evapotranspiration. Kentucky observers provide a great volunteer service to the community, the county and the state by providing information on precipitation, snowfall, and snow depths. The information is used by government and university scientists, community officials, farmers, county emergency managers, watershed managers, drought monitors, and by your friends and neighbors. More information about this organization and how to join can be found here at:

http://www.cocorahs.org/state.aspx?state=ky

July Garden Safe Planting Dates

	Latest Safe Planting			Latest Safe Planting	
	Date	**Area of KY**		**Date**	**Area**
Beans (snap)	July 15th July 25th	Eastern Mt. Central	**Lettuce (head plants)**	July 1st July 15th	Eastern Mt. Central
Beans (lima)	July 1st	Eastern Mt.	**Muskmelons**	July 1st July 15th	Central Western
Beets	July 15th July 20th	Eastern Mt. Central	**Okra**	July 1st July 15th	Eastern Mt. Central
Broccoli (plants)	July 15th	Eastern Mt.	**Onions (plants)**	July 1st July 15th	Central Western
Brussels Sprouts (plants)	July 1st July 15th	Eastern Mt. Central	**Onions (seed)**	July 1st	Western
Cabbage	July 1st July 15th	Eastern Mt. Central	**Parsley**	July 15th	Eastern Mt.
Carrots	July 1st July 15th	Eastern Mt. Central	**Parsnips**	July 1st	Western
Cauliflower (plants)	July 15th July 20th	Eastern Mt. Central	**Pepper (plants)**	July 1st July 15th	Central Western
Celery	July 1st July 15th	Central Western	**Irish Potatoes**	July 1st July 15th	Central Western
Chard	July 15th	Central	**Rutabaga**	July 1st	Eastern Mt.
Collards	July 15th	Eastern Mt.	**Pumpkins**	July 1st	Western
Sweet Corn	July 10th July 20th	Central Western	**Southern Peas**	July 1st July 15th	Central Western
Cucumbers	July 1st July 15th	Central Western	**Snow Peas**	July 20th	Eastern Mt.
Eggplant	July 1st	Western	**Summer Squash**	July 15th	Eastern Mt.
Kale	July 15th	Eastern Mt.	**Tomatoes (plants)**	July 1st	Western
Kohlrabi	July 15th	Eastern Mt.	**Turnips**	July 15th	Eastern Mt.

Lettuce (bibb plants)	July 15th	Eastern Mt.	**Watermelons**	July 1st July 15th	Central Western
Muskmelons	July 1st July 15th	Central Western	**Winter Squash**	July 1st July 15th	Central Western

July Vegetable Gardener's Calendar for Western KY

July 1st	Start seeds outdoors for SWEET CORN (early maturing variety), CARROTS, and BEETS.
July 10th	Sow seeds of fall Cole crops in a nursery area
July 15th	Start seeds outdoors for SWEET CORN (early maturing variety), KALE, MUSTARD, TURNIPS, and SUMMER SQUASH
NOTE: Subtract 10 days for Central KY and 15 for Eastern KY to these dates for fall crops	

July Crop Operations

	First Week	Second Week	Third Week	Fourth Week
Forages	2nd Cutting of Alfalfa 33% done	2nd Cutting of Alfalfa 50% done	-----	-----
Small Grains	50% of Wheat Harvested	85% of Wheat Harvested	Wheat Harvest COMPLETED	-----
Soybeans	85% is now planted Double-Cropped beans	-----	25% of beans are blooming	40% of beans are blooming Pods setting on 8% of plants BEGIN Critical Pod-Filling Stage
Tobacco	-----	-----	Burley & Dark are about 15% bloomed out	Burley and Dark are about 40% bloomed out
Corn	-----	25% of crop is tasseling BEGIN Critical Silking Stage	All corn is tasseling now 60% in silk stage Critical Silking Stage (cont.)	75% in silk stage Critical Silking Stage (cont.)
General Farm Operations	-----	-----	-----	-----

July Beef Operations

Spring Calving Herd	• Breeding season is almost over. • Mid-summer working opportunity: Work cattle early in the morning to avoid heat stress
Fall Calving Herd	• Dry Period
All Cattle	• Continue to watch for pinkeye and treat if necessary. Minimize problems by clipping pastures, controlling face flies and providing shade. • Check pastures for downed wild cherry trees after storms (wild cherry leaves can be TOXIC to cattle). • Be sure that clean water is always available, especially in hot weather.
Forages	• Identify fescue pastures for accumulation of fall growth (stockpiling). • Attend county, regional, and state field days for timely information. • Clip pastures as needed. • Soil test fields to be seeded in fall and to determine pasture fertilization needs. • Determine species and varieties to seeded in fall.