



Weather Observer

April 11, 2014

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March 2014 Monthly Summary

After a very cool and snowy winter, March was met with the anticipation that the tide would finally turn. In some ways it did, but for the most part, it was just another sub-par March across the Commonwealth. The month started off just like the past few, in which Kentucky saw a major winter weather event. An Arctic cold front diving through the

area worked in combination with multiple upper level disturbances to produce a mixed baa of freezina rain. sleet, and snow across the state. Road conditions tapered with a tenth to quarter inch of ice accumulation, up to 2 inches of sleet, and 2 to 4 inches of snow. Figures 1, 2 and 3, which can be found scattered throughout this article, display the accumulations across Western (NWS Paducah), Central (NWS Louisville), and Eastern (NWS Jackson) Kentucky over the course of the event. This system left a

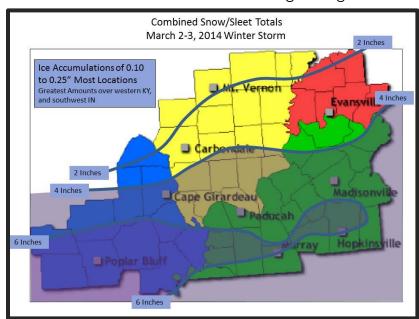


Figure 1

significant snowpack across the region, which just aided in pushing temperatures lower as Arctic high pressure moved into the Commonwealth. Highs only got into the 20s with lows dipping into the single digits at times. <u>Paintsville even saw a low of -2</u>.

Going into the month's midsection, many were questioning whether spring could actually be in sight. Southwesterly flow bumped temperatures into the 60s and 70s multiple times throughout the week. That period ended up being only the 3rd week this year, where average temperatures were actually above normal. Unfortunately, cooler air moved back into the area on the 16th. This brought another round of sleet and snow to the area, but this time, accumulations were minimal for much of the state. The only exception was in northeastern portions of the Bluegrass, where the area saw 3 to 5 inches.

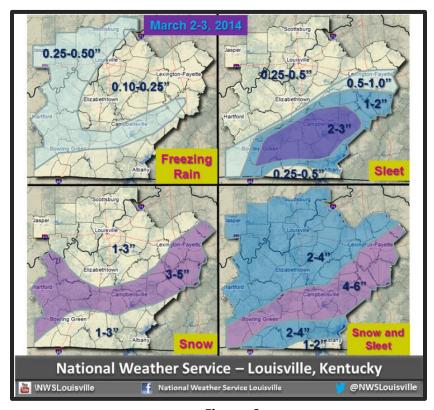


Figure 2

Conditions then dried out going into the 3rd week of the month with high pressure being the dominant factor. This period ended up being the driest week of 2014 with a state average of only 0.09 inches of precipitation. The break was short-lived as activity ramped back up heading into the end of March. A couple upper level disturbances passed through on the 24th and 25th. Temperatures were sufficiently cool and allowed for yet another late-season snow event. The second round was accompanied by gusty winds and resulted in poor visibilities at times. Temperatures then

proceeded to warm throughout the week, but precipitation stuck around. A cold front sparked an initial round of widespread rainfall on the 27th. This boundary then stalled across the region the next day, with low pressure overriding the front. Activity carried into Saturday and amounted to rainfall accumulations in excess of an inch for the 3 day period. Saying this, precipitation was still below normal for the month of March by

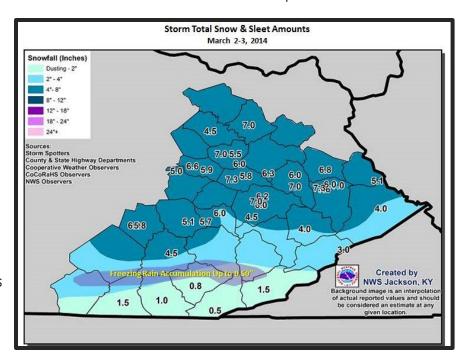


Figure 3

three quarters of an inch. The monthly statistics for each climate division and the entirety of the state can be found in the table below.

Summarized and a	_			-					•		
		AIR	TEMP	ERATU	RE		PRECI	PITATI	ON	Extre	meTemp
STATION	MAX	DEV	MIN	DEV	AVR	DEV	TOTAL	DEV	%NORM	HI	LO
WEST (CD1)	54	-6	33	-4	43	-5	4.06	-0.68	86	77	5
CENTRAL (CD2)	54	-4	32	-4	43	-4	3.63	-1.06	77	77	7
BLUEGRASS (CD3)	52	-4	30	-4	41	-4	2.80	-1.22	70	76	1
EAST (CD4)	54	-5	32	-1	43	-3	4.30	-0.05	99	78	-2
STATE	54	-4	32	-3	42	-4	3.70	-0.75	83	78	-2

Data obtained from KY Mesonet and NWS Station

Two Week Forecast

The start of the month has been extremely wet thus far, which in turn has put a halt to most field activities. Putting this into perspective, the state has averaged over 2.5 inches as of April 10th. The West and Bluegrass have seen the most with just over 3 inches on average, while this tapers farther east to an inch and a half.

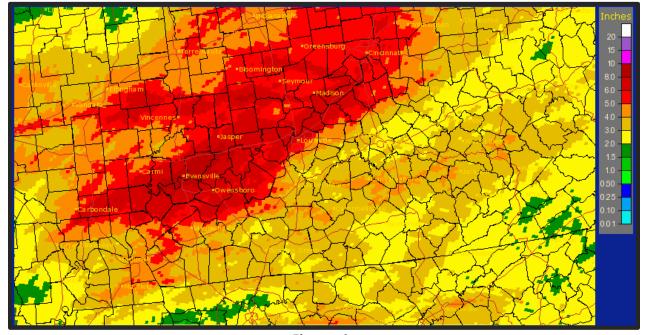


Figure 4

Figure 4 shows the significant amount precipitation that the Lower Ohio Valley has seen over the past 2 weeks. This amount of rain has generally saturated ground across the Bluegrass State with more yet to come. After this most recent round of rainfall (4/11), another cold front is expected to push through the Bluegrass State this upcoming Monday. Models are currently hinting at this system bringing another half to one inch of rainfall. Total precipitation is normally around 4 inches for the month of April.

The good news is that much of this upcoming weekend (4/12-4/13) will be dry and warmer. Southwesterly flow will bump temperatures back into the mid to upper 70s each day. The lower 80s is even a good bet on Sunday across the eastern half of the state as winds become breezy. Unfortunately, we do live in the Ohio Valley and are now placed in the transitional season of spring. Following the front's departure, much cooler air will move in for the midsection of next work week. Highs will only be the 50s on Tuesday and Wednesday, but the most concern is with temperatures Tuesday night and into the morning hours. Lows could potentially get into the upper 20s across Eastern Kentucky and low to mid 30s farther west. This will pose the first substantial threat to agriculture this spring season with the combination of peach trees blooming and corn beginning to go into the ground.

Looking farther out into the future, outlooks are leaning at below normal temperatures continuing across the state through at least the 24th. Through the second half of April, high temperatures normally run in the

Three Month Outlook (AMJ) Near Normal Precipitation and Temperatures

upper 60s to low 70s, as lows dip into the upper 40s to low 50s. Precipitation is also expected to be near to below normal. The 3 month outlook through June then places the Commonwealth in a period of near normal temperatures and rainfall.

<u>Spring Freeze / Frost Occurrence Data</u>

Background: The table below was developed for major cities across the state of Kentucky based on the 1981-2010 Climate Normals. This information can aide in knowing when to plant or harvest various crops, fruit, or vegetables across the Bluegrass State. The probability level is used in a way that 90%, 50%, or 10% displays the percentage that the threshold temperature will occur after the respective date. Also included are the earliest and latest dates that a particular threshold temperature has occurred at each location over the time-span.

Sources: National Climatic Data Center (NCDC), Midwestern Regional Climate Center (MRCC), UK Ag Weather Center (UKAWC)

	Thursday and	Spring (Date)						
Station Name	Threshold	Probability Level						
	(F°)	Earliest	90	50	10	Latest		
	36	Aprll	Apr19	May08	May27	Jul02		
Ashland	32	Apr10	Apr11	May02	May21	Jun10		
	28	Mar25	Apr07	Apr15	May14	May25		
	36	Apr10	Apr13	Apr29	May14	May22		
Barbourville	32	Mar25	Apr02	Apr18	May07	May22		
	28	Mar19	Mar22	Apr06	Apr18	Apr30		
	36	Mar30	Apr05	Apr17	May03	May21		
Bowling Green AP	32	Mar19	Mar26	Apr05	Apr18	Apr22		
	28	Feb22	Mar06	Mar27	Apr09	Apr19		
Cincinnati	36	Apr09	Apr13	Apr27	May09	May21		
Covington AP	32	Mar29	Apr03	Apr19	May03	May18		
oovingion Ai	28	Mar18	Mar23	Apr04	Apr17	Apr22		
Jackson Julian	36	Apr01	Apr05	Apr18	May13	May18		
Carroll AP	32	Mar21	Mar26	Apr08	Apr23	May15		
- Canon Ai	28	Feb14	Mar11	Mar30	Apr10	Apr22		
Lexington	36	Apr05	Apr10	Apr26	May07	May18		
Blue Grass AP	32	Mar27	Apr03	Apr11	Apr26	May18		
	28	Feb14	Mar11	Apr03	Apr17	Apr22		
Louisville	36	Mar28	Mar31	Aprll	Apr23	May06		
International AP	32	Mar14	Mar23	Apr03	Apr17	Apr22		
	28	Feb11	Mar09	Mar21	Apr09	Apr22		
Paducah Barkley	36	Mar29	Apr05	Apr17	May01	May15		
Regional AP	32	Mar06	Mar27	Apr08	Apr20	Apr27		
	28	Mar03	Mar10	Mar27	Apr09	Apr19		
	36	Mar30	Apr01	Apr21	May10	May15		
Princeton 1 SE	32	Mar06	Mar26	Apr09	Apr27	May02		
	28	Feb29	Mar09	Apr02	Aprl4	Apr19		
	36	April08	Apr10	Apr30	May13	May21		
Somerset 2 N	32	Mar24	Apr01	Apr18	May11	May18		
	28	Feb26	Mar24	Apr09	Apr21	May03		
	36	Apr19	May03	May13	Jun06	Jun10		
West Liberty 3 NW	32	Apr06	Aprll	May03	May22	May27		
	28	Apr02	Apr07	Apr19	May10	May22		
	36	Apr10	Apr13	Apr28	May16	May22		
Williamsburg	32	Mar29	Mar31	Apr18	May01	May10		
	28	Mar22	Mar27	Apr05	Apr20	Apr26		

Average Date:



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April Safe Planting Dates					
	Earliest Safe Planting Date			Earliest Safe Planting Date	
	Date	Location		Date	Location
Asparagus (crowns)			Lettuce (leaf)	April 1st	Eastern Mt.
Beans (snap)	April 10 th April 25 th	Western Central	Lettuce (bibb plants)	April 1st	Eastern Mt.
Beans (lima)	April 15 th	Western	Lettuce (head plants)	April 1st	Eastern Mt.
Broccoli (plants)	April 5 th April 10 th	Central Eastern Mt.	Onions (plants)	April 1st	Eastern Mt.
Brussels Sprouts (plants)	April 5 th April 10 th	Central Eastern Mt.	Onions (seed)	April 1st	Eastern Mt.
Cabbage	April 1st	Eastern Mt.	Parsley	April 1st	Eastern Mt.
Carrots	April 1st	Eastern Mt.	Parsnips	April 1st	Eastern Mt.
Cauliflower (plants)	April 5 th April 10 th	Central Eastern Mt.	Pumpkins	April 20 th	Western
Celery	April 1 st April 5 th April 10 th	Western Central Eastern Mt.	Southern Peas	April 20 th	Western
Chard	April 1st	Eastern Mt.	Summer Squash	April 20 th	Western
Sweet Corn	April 10 th April 20 th	Western Central	Tomatoes (plants)	April 20 th	Western
Cucumbers	April 20 th	Western	Watermelons	April 20 th	Western
Kale	April 1st	Eastern Mt.	Winter Squash	April 20 th	Western

April Vegetable Gardner's Calendar for Western Kentucky					
April 1st	 Move transplants to garden for BROCCOLI, CAULIFLOWER, COLLARDS, LETTUCE, CHINESE CABBAGE, SWISS CHARD, and ONIONS FROM SEEDS. Start seeds outdoors for SPINACH, MUSTARD, RADISHES, LETTUCE, and SWISS CHARD 				
- Start seeds indoors for MUSKMELONS, WATERMELONS, and SQUASH - Start seeds outdoors for SWEET CORN, BEETS, CARROTS, MUSTARD, SPINACH, RADISHES, and LETTUCE.					
NOTE: Add 10 days for Central KY and 15 for Eastern KY to these dates for spring and					
summer crops.					

April Crop Operations						
	First Week	Second Week	Third Week	Fourth Week		
Small Grains	Wheat about 5'' tall			50% of Barley heading		
Soybeans						
Tobacco	75% of beds seeded 20% of bed plants emerged		All beds are seeded 50% of bed plants emerging	90% of plants emerged		
Corn		Planting BEGINS 5% done	16% of crop planted	25% of crop planted		
General Farm Operations			Plowing for all crops 60% complete			

April Beef Operations					
• Continue providing magnesium in the mineral mix until d temperatures are consistently above 60 degrees.					
Fall Calving Herd	Pre-weaning period				
All Cattle	Continue providing magnesium in the mineral mix until daytime temperatures are consistently above 60 degrees.				
Forages	 Complete seeding of alfalfa Determine need for supplemental forages such as millet Prepare for start of hay harvest Prepare fencing and water for grazing season and BEGIN grazing early pastures Plant corn for silage and warm season grasses if weather allows Assess opportunity for weed control using recommended herbicides (always read and follow label recommendations). 				