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

# UKAg Weather Center | Weather Observer

**April 11, 2014** **BAE**

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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 bag of freezing 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 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. Paintsville even saw a low of -2.

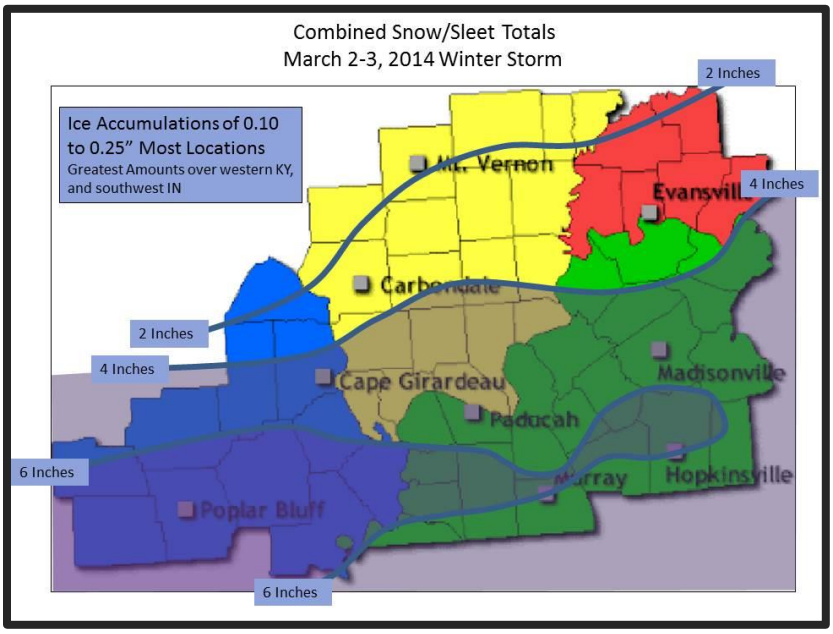


**Figure 1**

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.

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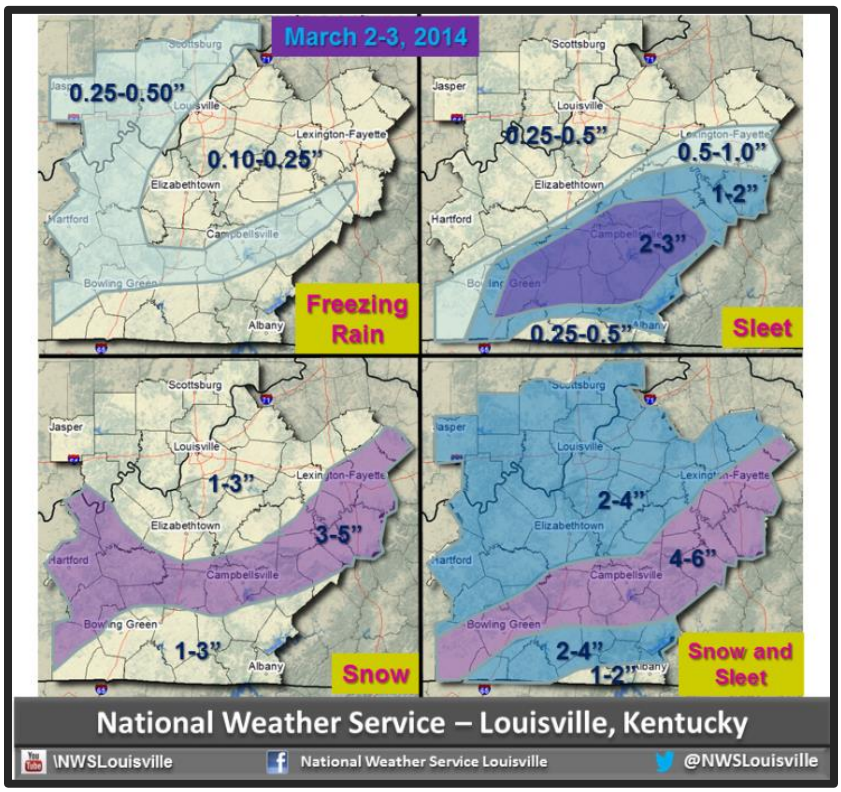


**Figure 2**

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 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.

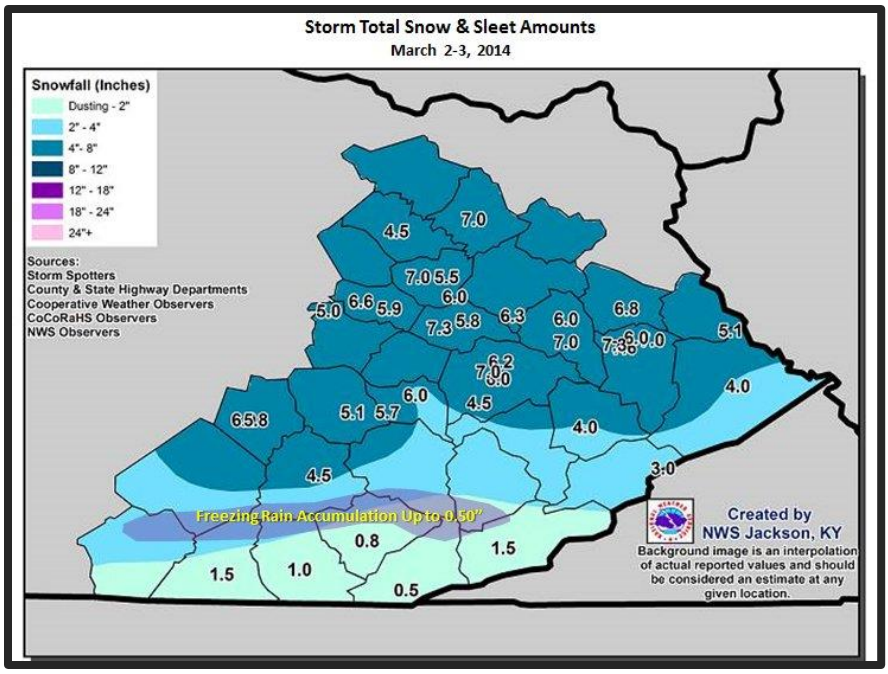


**Figure 3**

Summarized and averaged data for the period 20140301 to 20140331(Last 31 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) | 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.

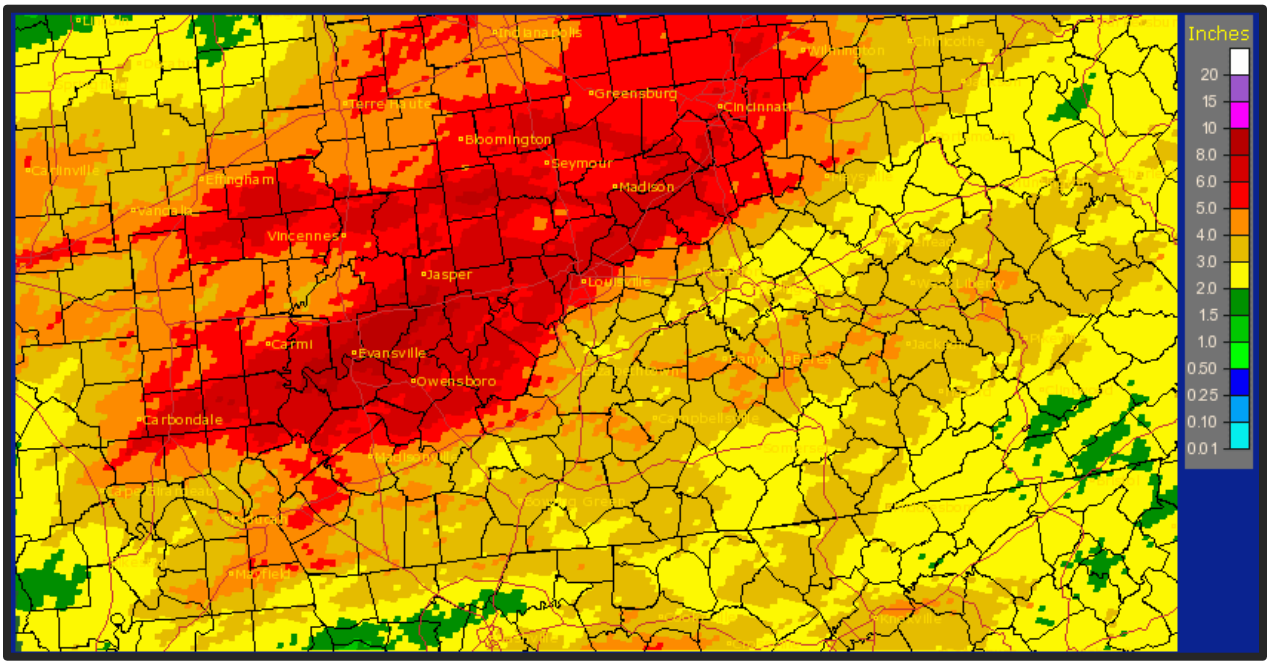


**Figure 4**

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.

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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 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.

## Spring Freeze / Frost Occurrence Data

**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)

| Station Name | Threshold (F°) | Spring (Date) Probability Level | | | | |
|---|---|---|---|---|---|---|
| | | Earliest | 90 | 50 | 10 | Latest |
| Ashland | 36 | Apr11 | Apr19 | May08 | May27 | Jul02 |
| | 32 | Apr10 | Apr11 | May02 | May21 | Jun10 |
| | 28 | Mar25 | Apr07 | Apr15 | May14 | May25 |
| Barbourville | 36 | Apr10 | Apr13 | Apr29 | May14 | May22 |
| | 32 | Mar25 | Apr02 | Apr18 | May07 | May22 |
| | 28 | Mar19 | Mar22 | Apr06 | Apr18 | Apr30 |
| Bowling Green AP | 36 | Mar30 | Apr05 | Apr17 | May03 | May21 |
| | 32 | Mar19 | Mar26 | Apr05 | Apr18 | Apr22 |
| | 28 | Feb22 | Mar06 | Mar27 | Apr09 | Apr19 |
| Cincinnati Covington AP | 36 | Apr09 | Apr13 | Apr27 | May09 | May21 |
| | 32 | Mar29 | Apr03 | Apr19 | May03 | May18 |
| | 28 | Mar18 | Mar23 | Apr04 | Apr17 | Apr22 |
| Jackson Julian Carroll AP | 36 | Apr01 | Apr05 | Apr18 | May13 | May18 |
| | 32 | Mar21 | Mar26 | Apr08 | Apr23 | May15 |
| | 28 | Feb14 | Mar11 | Mar30 | Apr10 | Apr22 |
| Lexington Blue Grass AP | 36 | Apr05 | Apr10 | Apr26 | May07 | May18 |
| | 32 | Mar27 | Apr03 | Apr11 | Apr26 | May18 |
| | 28 | Feb14 | Mar11 | Apr03 | Apr17 | Apr22 |
| Louisville International AP | 36 | Mar28 | Mar31 | Apr11 | Apr23 | May06 |
| | 32 | Mar14 | Mar23 | Apr03 | Apr17 | Apr22 |
| | 28 | Feb11 | Mar09 | Mar21 | Apr09 | Apr22 |
| Paducah Barkley Regional AP | 36 | Mar29 | Apr05 | Apr17 | May01 | May15 |
| | 32 | Mar06 | Mar27 | Apr08 | Apr20 | Apr27 |
| | 28 | Mar03 | Mar10 | Mar27 | Apr09 | Apr19 |
| Princeton 1 SE | 36 | Mar30 | Apr01 | Apr21 | May10 | May15 |
| | 32 | Mar06 | Mar26 | Apr09 | Apr27 | May02 |
| | 28 | Feb29 | Mar09 | Apr02 | Apr14 | Apr19 |
| Somerset 2 N | 36 | April08 | Apr10 | Apr30 | May13 | May21 |
| | 32 | Mar24 | Apr01 | Apr18 | May11 | May18 |
| | 28 | Feb26 | Mar24 | Apr09 | Apr21 | May03 |
| West Liberty 3 NW | 36 | Apr19 | May03 | May13 | Jun06 | Jun10 |
| | 32 | Apr06 | Apr11 | May03 | May22 | May27 |
| | 28 | Apr02 | Apr07 | Apr19 | May10 | May22 |
| Williamsburg | 36 | Apr10 | Apr13 | Apr28 | May16 | May22 |
| | 32 | Mar29 | Mar31 | Apr18 | May01 | May10 |
| | 28 | Mar22 | Mar27 | Apr05 | Apr20 | Apr26 |

**Average Date:**

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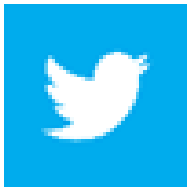

## April Safe Planting Dates

| | Earliest Safe Planting Date | | | Earliest Safe Planting Date | |
|---|---|---|---|---|---|
| | **Date** | **Location** | | **Date** | **Location** |
| **Asparagus (crowns)** | ----- | ---- | **Lettuce (leaf)** | April 1st | Eastern Mt. |
| **Beans (snap)** | April 10th<br>April 25th | Western<br>Central | **Lettuce (bibb plants)** | April 1st | Eastern Mt. |
| **Beans (lima)** | April 15th | Western | **Lettuce (head plants)** | April 1st | Eastern Mt. |
| **Broccoli (plants)** | April 5th<br>April 10th | Central<br>Eastern Mt. | **Onions (plants)** | April 1st | Eastern Mt. |
| **Brussels Sprouts (plants)** | April 5th<br>April 10th | Central<br>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 5th<br>April 10th | Central<br>Eastern Mt. | **Pumpkins** | April 20th | Western |
| **Celery** | April 1st<br>April 5th<br>April 10th | Western<br>Central<br>Eastern Mt. | **Southern Peas** | April 20th | Western |
| **Chard** | April 1st | Eastern Mt. | **Summer Squash** | April 20th | Western |
| **Sweet Corn** | April 10th<br>April 20th | Western<br>Central | **Tomatoes (plants)** | April 20th | Western |
| **Cucumbers** | April 20th | Western | **Watermelons** | April 20th | Western |
| **Kale** | April 1st | Eastern Mt. | **Winter Squash** | April 20th | Western |

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| 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.<br>- Start seeds outdoors for SPINACH, MUSTARD, RADISHES, LETTUCE, and SWISS CHARD |
| **April 5th** | - Start seeds indoors for MUSKMELONS, WATERMELONS, and SQUASH<br>- 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<br><br>20% of bed plants emerged | ----- | All beds are seeded<br><br>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 | |
|---|---|
| **Spring Calving Herd** | • Continue providing magnesium in the mineral mix until daytime 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<br>• Determine need for supplemental forages such as millet<br>• Prepare for start of hay harvest<br>• Prepare fencing and water for grazing season and BEGIN grazing early pastures<br>• Plant corn for silage and warm season grasses if weather allows<br>• Assess opportunity for weed control using recommended herbicides (always read and follow label recommendations). |

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