



KENTUCKY WEEKLY CROP & WEATHER REPORT



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Prepared in Cooperation with:
Univ. of Ky - Agr'l Weather Center
U.S. Dept. of Commerce - NOAA
Kentucky Department of Agriculture
Cooperative Extension Service

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November 2003 - March 2004

March 29, 2004

This first Crop & Weather Report of 2004 is a summary of winter weather. Freeze probabilities are included on the next page. The regular releases will begin on April 5. The primary purpose of the weekly report is to provide producers, agricultural media and others with up-to-date information on crops, moisture, temperatures, etc. Information is made possible through cooperation of the University of Kentucky Agricultural Weather Center, National Weather Service, County Agricultural Agents of the Extension Service, Farm Service Agency, voluntary crop reporters and weather observers.

KENTUCKY WINTER WEATHER SUMMARY 2003 - 2004				
CITY	NOVEMBER	DECEMBER	JANUARY	FEBRUARY
LEXINGTON				
Avg. Temperature	49.0°	36.0°	30.0°	36.0°
30 Year Avg.	45.9°	36.3°	32.0°	36.4°
Precipitation	5.81"	3.93"	3.32"	1.49"
Precip. Normals	3.44"	4.03"	3.34"	3.27"
JACKSON				
Avg. Temperature	52.0°	38.0°	33.0°	39.0°
30 Year Avg.	47.7°	38.3°	33.9°	37.9°
Precipitation	5.47"	3.79"	4.23"	3.77"
Precip. Normals	4.20"	4.27"	3.56"	3.68"
PADUCAH				
Avg. Temperature	52.0°	39.0°	35.0°	39.0°
30 Year Avg.	46.8°	36.9°	32.9°	38.1°
Precipitation	5.19"	2.20"	3.07"	1.62"
Precip. Normals	4.53"	4.38"	3.47"	3.93"
LOUISVILLE				
Avg. Temperature	51.0°	37.0°	31.0°	37.0°
30 Year Avg.	47.6°	37.6°	33.0°	37.6°
Precipitation	5.68"	3.77"	4.76"	1.81"
Precip. Normals	3.80"	3.69"	3.28"	3.25"

NOVEMBER 2003 - The near-record warmth and cold periods caused a "roller coaster" temperature ride. Temperatures varied often as record highs were set at the beginning and near the third week ranking the month as the 8th warmest on record. Temperatures were normal to below normal for several short periods during the month. Several rain events occurred bringing thunderstorms and occasional flooding, and it ranked as the 11th wettest November on record. Kentucky also got its first taste of mixed snow and sleet during the later parts of the month with mostly light amounts. Precipitation totaled 5.88 in., 1.84 in. above normal.

DECEMBER 2003 - Temperatures were near average for most of the month ranking as the 54th warmest in the past 109 years. The month was also drier than normal, ranking it as the 42nd driest during the same time frame. Only the final week had above normal temperatures, and all weeks had below normal precipitation. Temperatures averaged 37.2 degrees which was 0.5 degrees above normal. Precipitation totaled 3.51 in. statewide which was -0.77 in. from normal.

JANUARY 2004 - The new year began with highs in the lower 70's. The last weekend brought the first sub-zero lows of the winter. Precipitation averaged above normal in part to significant rains at the beginning of the month that caused flooding. In the third week a major winter storm brought a mixed bag of precipitation. Western areas had a rain event, while ice covered central areas, and snow blanketed the north. Temperatures averaged 32.4 degrees which was 0.6 degrees above normal. Precipitation totaled 4.04 in. which was 0.66 in. above normal.

FEBRUARY 2004 - February like January was a month of contrasts. The first week brought below normal temperatures and above normal precipitation causing flooding in the east. The last three weeks brought very little in the way of precipitation as average departures were nearly an inch below normal each week. Temperatures were at or above normal for the same three weeks. High pressure lead to dry and mild conditions. Temperatures averaged 37.1 degrees, 0.1 degree below normal. Precipitation totaled 2.59 in. which was 1.18 in. below normal.

MARCH 2004 - The month began wet and warm with temperatures in the mid 60's to low 70's. Heavy rain caused flooding of low lying areas. A series of fronts caused alternating periods of very warm temperatures with showers and cold weather with wind and snow showers. Warmer temperatures and scattered showers ended the month. Farmers began field preparation for planting and applied fertilizer. Fall seeded small grains and pastures began to green with the warmer temperatures and increased moisture spurred some limited growth at months end.

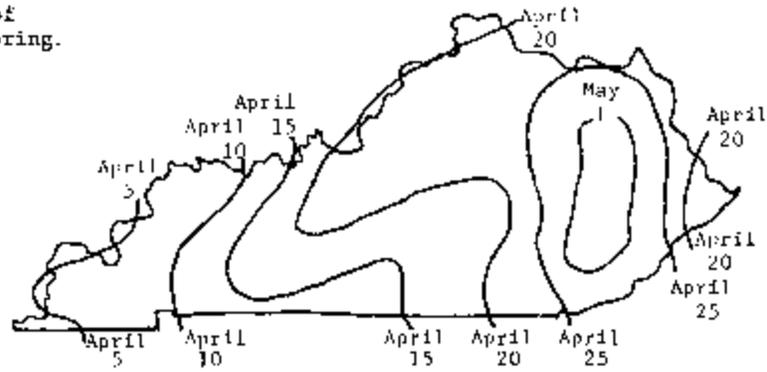
KENTUCKY FREEZE RISK: The winter of 2003-2004 began with near-record warmth in November. December and January continued the above normal temperature trend with the first sub-zero lows arriving late at the end of January. Slightly below normal temperature dominated much of February with the month ending with highs in the 60's that continued into early March. Most areas of Kentucky still have a 90 percent chance or greater of experiencing freezing temperatures this spring. Data below are norms from the 1971 - 2000 period with the average date of the last temperatures of 32 degrees or lower being shown in the 50 percent column. All freeze data are based on temperatures at approximately 5 feet above ground and in a representative exposure.

FREEZE DATE PROBABILITIES 1971 - 2000
Last Spring Occurrence

District & Station	Earliest	90%	50%	10%	Latest
WESTERN					
Beaver Dam	March 25	April 2	April 12	April 30	May 5
Golden Pond	March 18	March 23	April 6	April 20	April 23
Henderson	March 23	March 26	April 10	April 22	April 23
Hopkinsville <u>1/</u>	March 23	March 29	April 11	April 23	May 5
Lovellaceville	March 25	April 1	April 11	April 27	May 9
Madisonville	March 11	March 29	April 10	April 24	May 5
Mayfield	March 24	April 3	April 13	April 25	May 5
Owensboro <u>1/</u>	March 24	March 25	April 10	April 23	May 5
Paducah	March 7	March 24	April 9	April 22	April 29
Princeton	March 24	April 1	April 10	April 26	May 5
CENTRAL					
Bowling Green	March 24	March 26	April 10	April 23	May 5
Campbellsville <u>1/</u>	March 27	March 31	April 13	April 30	May 11
Glasgow	March 28	April 6	April 14	April 30	May 5
Greensburg	March 30	April 5	April 16	April 29	May 5
Leitchfield	April 2	April 8	April 24	May 8	May 16
Louisville	March 22	March 24	April 8	April 21	May 5
Mammoth Cave	March 29	April 6	April 25	May 12	May 16
Scottsville	March 23	March 28	April 10	April 20	April 23
BLUEGRASS					
Berea College	March 25	March 28	April 10	May 3	May 16
Carrollton	March 30	April 7	April 19	May 4	May 7
Covington	March 29	April 5	April 21	May 9	May 16
Danville	March 24	March 31	April 10	April 24	May 6
Dix Dam	February 28	March 30	April 10	April 25	May 8
Falmouth <u>1/</u>	April 3	April 9	April 24	May 10	May 18
Farmers	March 30	April 8	April 25	May 11	May 18
Frankfort	March 31	April 3	April 17	May 4	May 8
Lexington	March 27	April 2	April 13	April 28	May 5
Maysville	March 27	April 8	April 22	May 7	May 10
Shelbyville	April 8	April 11	April 29	May 14	May 18
Williamstown	March 27	April 4	April 11	April 28	May 7
EASTERN					
Ashland	April 11	April 13	May 4	May 20	June 12
Barbourville	March 26	April 11	April 24	May 8	May 10
Baxter	April 1	April 8	April 20	May 7	May 13
London	March 22	April 3	April 18	May 4	May 20
Manchester	April 10	April 20	May 3	May 17	May 27
Middlesboro <u>1/</u>	April 8	April 14	May 1	May 11	May 18
Mount Vernon	April 1	April 8	April 25	May 10	May 16
Somerset	March 25	April 9	April 23	May 7	May 16
Williamsburg	March 29	April 6	April 23	May 7	May 12

1/Station had missing data and was estimated from surrounding stations.

Average Date of
Last 32° in Spring.



Definitions of Terms used in subsequent releases.

1. **Topsoil Moisture:** (Topsoil is defined as the top 4 - 6 inches of soil.)
 - Very Short* - Soil extremely dry. Pastures and crops stressed with possible deterioration.
 - Short* - Soil dry. Seed germination and/or normal crop growth and development would be curtailed.
 - Adequate* - Soil moist. Seed germination and/or crop growth and development would be normal or unhindered.
 - Surplus* - Soil wet. Fields may be muddy and will generally be unable to absorb additional moisture. Young developing crops may be yellowing from excess moisture.

2. **Days Suitable for Fieldwork:** A "suitable" day is one where weather and field conditions allow producers to work in fields a major portion of that day.

3. **Crop Condition:**
 - Very Poor* - Extreme degree of loss to yield potential, complete or near crop failure. Pastures provide very little or no feed considering the time of year. Supplemental feeding is required to maintain livestock condition.
 - Poor* - Heavy degree of loss of yield potential which can be caused by excess soil moisture, drought, disease, etc. Pastures are providing only marginal feed for the current time of year. Some supplemental feeding is required to maintain livestock condition.
 - Fair* - Less than normal crop condition. Yield loss is a possibility but the extent is unknown. Pastures are providing generally adequate feed but is still less than normal for the time of year.
 - Good* - Yield prospects are normal or above. Moisture levels are adequate with only light disease and insect damage. Pastures are providing adequate feed supplies for the current time of year.
 - Excellent* - Yield prospects are above normal and crops are experiencing little or no stress. Pastures are supplying feed in excess of what is normally expected at the current time of year.

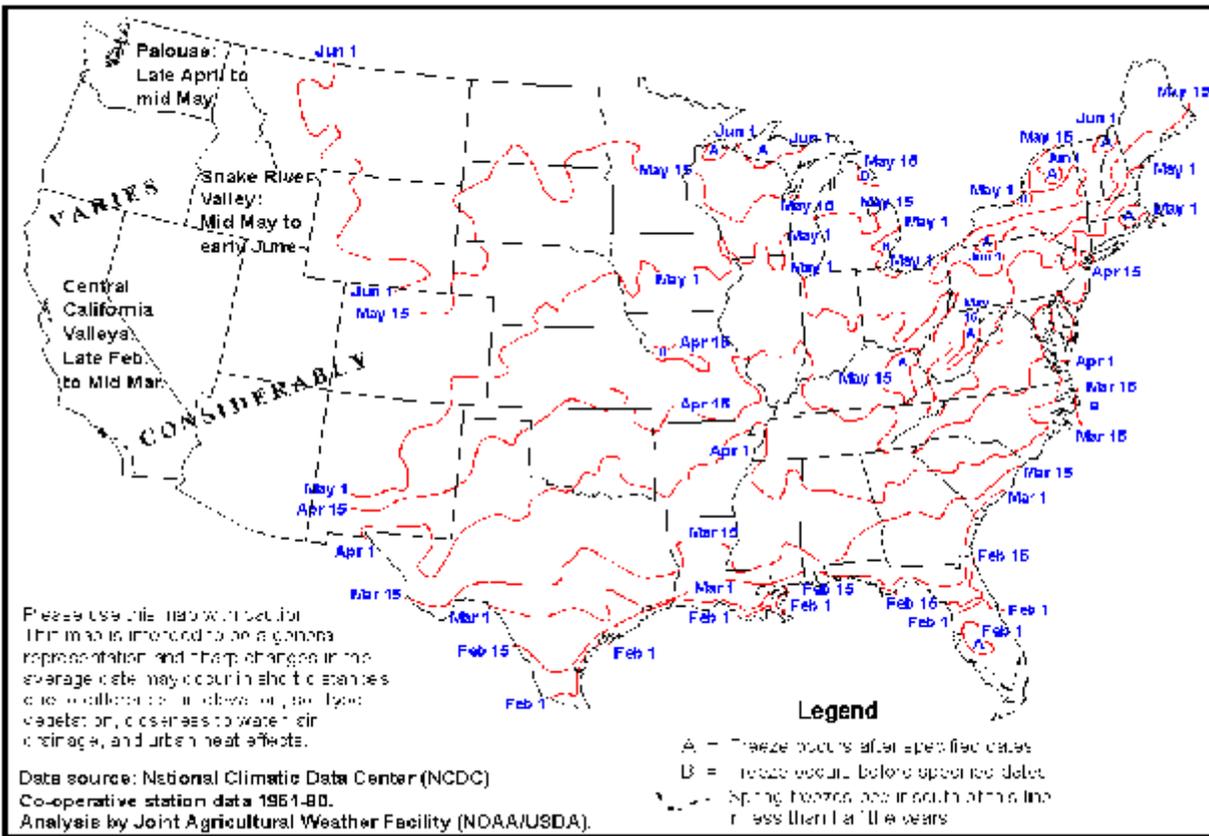
4. **Crop Progress Percents:** Percents should indicate the progress of field activities or crop development. If, for example, half of the total current year soybean acreage expected is planted, a value of 50 percent should be used. If weather conditions alter plans such that intentions are prevented, a 100 percent should be used when planting stops. Progress percents should relate to acres. An acre should be considered to be in or beyond a phenological stage when 50 percent or more of the plants in that acre are in or beyond that stage. Generally, you should consider a given field to be in a particular stage when 50 percent or more of the plants have reached or gone beyond that stage.

FREEZE INJURY IN WHEAT

Growth Stage	Injurious temp. (2 hours)	Primary Symptoms	Yield Effect
Tillering (1 - 5) ^a	12° F	Leaf chlorosis; burning of leaf tips; silage odor, blue cast to fields	Slight to moderate
Jointing (6 - 7)	24° F	Death of growing point; leaf yellowing or burning; lesions, splitting, or bending of lower stem, odor	Moderate to severe
Boot (10)	28° F	Floret sterility; spike trapped in boot; damage to lower stem; leaf discoloration; odor	Moderate to severe
Heading (10.1 - .5)	30° F	Floret sterility; white awns or white spikes; damage to lower stem; leaf discoloration	Severe
Flowering (10.51 - .54)	30° F	Floret sterility; white awns or white spikes, damage to lower stem; leaf discoloration	Severe
Milk (11.1)	28° F	White awns or white spikes; damage to lower stems; leaf discoloration, shrunken, roughened, or discolored kernels	Moderate to severe
Dough (11.2)	28° F	Shriveled, discolored kernels; poor germination	Slight to moderate

^a Numbers in parentheses refer to the Feekes scale

United States: Average dates of last spring freeze (32 F)



This release and others can be viewed on the Internet at <http://www.nass.usda.gov/ky/> For a free E-Mail subscription of the Kentucky Weekly Crop & Weather report, on the Internet go to <http://www.nass.usda.gov/sub-form.htm> and follow the instructions.