

Maud, Kansas, 22d.
 Gardiner, Maine, 6th, 7th, 22d.
 Vineland, New Jersey, 9th, 12th, 26th.
 Wauseon, Ohio, 1st, 5th, 6th, 16th, 21st, 30th.
 Nashville, Tennessee, 30th.
 El Paso, Texas, 24th.
 Wytheville, Virginia, 2d, 8th, 15th.
 Lynchburg, Virginia, 20th.
 Cape Henry, Virginia, 15th.
 Yates Centre, Kansas, 20th.

ZODIACAL LIGHT.

Archer, Florida, 13th, 22d.
 Humboldt, Iowa, 10th, 26th.
 Cambridge, Massachusetts, 12th, 14th.
 Escanaba, Michigan, 11th.
 Nashville, Tennessee, 15th, 16th, 17th, 19th, 20th.

DROUGHT.

Havana, Mason county, Illinois, 30th: the crops in this vicinity are suffering in consequence of drought.

Milledgeville, Baldwin county, Georgia, 31st: crops are beginning to suffer from lack of rain.

INSECTS.

Professor C. G. Boerner, of Vevay, Switzerland county, Indiana, reports that during May, "insects injurious to vegetation, prevailed to an alarming extent, currants, gooseberries, roses, and grapevines, suffering especially from their ravages."

SAND STORMS.

Fort Thomas, Arizona, 2d.
 Yuma, Arizona, 13th, 14th, 18th, 25th.
 Fort McDowell, Arizona, 8th.

NOTES AND EXTRACTS.

REPORT OF THE OHIO METEOROLOGICAL BUREAU, MAY, 1884.

The means of the barometer readings, taken at the several stations during the month, show nothing unusual in the matter of atmospheric pressure. On the whole the pressure was slightly lower than for May, 1883, and the range was also somewhat less. The mean temperature for the month was 60°.7, which differs by only three-tenths of one degree from what may be considered the normal mean for May, although it is nearly three degrees higher than the mean for last year. The highest point reached during the month was 90°, at Waverly on the 22d, which is one degree higher than the maximum for May of last year. The minimum was also higher, and the range was almost exactly the same. The maximum daily range of temperature was not as great this year as last. The number of "clear days" was greater, and altogether the weather was more nearly "fair."

The mean rainfall was very nearly "normal," being 3.87 inches, while for May of last year it was 5.72 inches.

Tornadoes are reported from Licking county, Fayette county, and Morgan county. The latter appears to have been somewhat destructive at McConnellsville, where it is reported as having unroofed several houses, blown down many trees, etc. Considerable damage was done at a point two or three miles northeast of the town, where many large trees were blown down. The path of the tornado was not over one hundred feet wide, and it came from the wsw. Frost is reported from the same county on the 29th and 30th, doing but little damage, however.

A violent hail-storm is reported at Marietta on the 13th. The belt through which the storm passed was narrow, but the hail-stones were of unusual size, and in some cases the damage was considerable.

A self-registering anemometer has recently been put in operation at the central office at the Ohio State University. It has been running since 8.15 a. m., May 16. From that date to the end of the month, 3,861.5 miles of wind were recorded, being at the rate of 246 miles per day, or a little more than ten miles per hour. The maximum in one day was 402 miles, from noon of May 22 to noon of the 23d. The minimum was 161 miles, from noon of the 24th to noon of the 25th.

STATE SUMMARY OF REPORTS FOR MAY.

Mean barometer, 29.957 inches.
 Highest barometer, 30.376 inches on the 29th at Wauseon.
 Lowest barometer, 29.517 inches on the 19th at Toledo.
 Range of barometer, .859 inch.
 Mean relative humidity, 72.7 per cent.
 Mean temperature, 60°.4.
 Highest temperature, 90°.0 on the 22d at Waverly.
 Lowest temperature, 28°.5 on the 29th at Junction.
 Range of temperature, 61°.5.
 Mean daily range of temperature, 22°.2.

Greatest daily range of temperature, 42°.0 on the 22d at Ironton.
 Least daily range of temperature, 5°.1 on the 27th at Cincinnati.
 Number of clear days, 10.7.
 Number of fair days, 11.4.
 Number of cloudy days, 8.9.
 Number of days on which rain fell, 13.0.
 Mean rainfall, 3.87 inches.
 Average daily rainfall, .125 inch.
 Greatest rainfall, 6.27 inches at Sidney.
 Least rainfall, 1.76 inches at Warren.

T. C. MENDENHALL, *Director*.

The following extracts are taken from the May report of the "Tennessee Weather Service," under direction of Hon. A. J. McWhirter, Commissioner of Agriculture:

The meteorological conditions of May were characterized by generally low temperature about the 15th, with heavy rain storms and severe electrical disturbances at intervals during the month.

The mean temperature for the month was 66°.42, or 10°.85 above that of April and 1°.92 above that of May, 1883. The mean maximum temperature was 86°, which was 2° above the mean of May, 1883; and the mean minimum was 48°, or 8° above the mean of May, 1883.

The average precipitation for the month was 3.58 inches, 1.37 inches less than that of April, and .29 inch less than the average for May, 1883. The days of the greatest rainfall were the 2d, 3d, 4th, 5th, 13th, 22d, and 25th. The greatest fall occurred on the 4th, the average for that day being .684 inch; the next greatest was on the day following, the average being .436 inch. These rains in the early part of the month were reported very heavy in the western division of the state, and were quite destructive to the young crops, also damaging the lands to a great extent by washing out of soil.

STATE SUMMARY.

Mean temperature, 66°.42.
 Highest temperature, 90°, on the 22d, at Hurricane Switch.
 Lowest temperature, 39°, on the 31st, at Kingston Springs.
 Range of temperature, 51°.0.
 Greatest daily range of temperature, 41°, on the 31st, at Kingston Springs.
 Least daily range of temperature, 1°, on the 8th, at Greenville; on the 25th, at Beech Grove; and on the 26th, at Alexandria.
 Mean depth of rainfall, 3.58 inches.
 Mean daily rainfall, .115 inch.
 Greatest depth of rainfall, 8.64 inches, at Trenton.
 Least depth of rainfall, 1.09 inches, at Waverly.
 Average number of clear days, 10.3.
 Average number of fair days, 11.2.
 Average number of cloudy days, 9.5.
 Average number of days on which rain fell, 7.3.
 Prevailing direction of wind, southwest.

REPORT OF THE ALABAMA WEATHER SERVICE, UNDER DIRECTION OF PROFESSOR P. H. MELL, JR.

AGRICULTURAL AND MECHANICAL COLLEGE, AUBURN, ALABAMA, June, 1st, 1884.

The reputation for droughts earned by May in past years has in no respect been lost by the month just closed. The atmosphere has been dry and vegetation has suffered. Only three stations report over three inches of rain and four report a fall of less than one inch. The average rainfall for the state falls below two inches.

From the 1st to the 5th it was warm with very light showers. The wind during this time was generally from the southwest. From the 5th to the 18th a cool wave passed over the state with the wind blowing from the west and northwest. After the 18th, and until the 25th, there was an increase in the temperature, with the wind from the south and southwest; and the remainder of the month the wind veered around to the north and northeast, with falling temperature.

Although the month has been dry and parching, yet the thrifty farmers of the state have taken advantage of such conditions of the atmosphere to clean out their crops thoroughly and prepare them to receive profitably the refreshing rains of June.

The observers generally report no phenomena of special interest. From Trinity the following data have been received: "There have been no storms during this month. Very little rain has fallen, though it was cloudy with light showers. The weather has been remarkably cool for the season, and vegetation is very backward. Crops are at least one month late. The dry, cool weather during the latter portions of the month has injured oats, and perhaps cut off that crop almost entirely in this section. Not more than one-half inch of rain has fallen during this month at this point. Fruit prospects are good."

The observer at Tusculumbia reports the weather so cool the 14th, and again during the last week of the month, that fires were comfortable.

SUMMARY.

Mean temperature, 74°.3.
 Highest temperature, 98° at Calera on the 22d.
 Lowest temperature, 41° at Birmingham on the 30th.
 Range of temperature, 57°.

Greatest monthly range of temperature, 55° at Birmingham.
 Least monthly range of temperature, 26° at Tuscaloosa and at Greensborough.
 Greatest daily range of temperature, 43° at Birmingham on the 30th, 43° at Calera on the 21st, 42° at Selma on the 18th.
 Least daily range of temperature, 1° at Tuscaloosa, 1° at Union Springs, 2° at Greenville, 2° at Greene Springs—all on the 5th.
 Mean depth of rainfall, 1.77 inches.
 Mean daily rainfall, .056 inch.
 Greatest depth of monthly rainfall, 3.83 inches, at Newton.
 Least depth of monthly rainfall, 0.42 inch at Birmingham.
 Greatest daily rainfall, average for the state, 0.45 inch on the 5th.
 Heaviest daily rainfall, 2.00 inches at Newton on the 5th.
 Days of general rainfall, 5th, 24th, 25th, 26th.
 Average number of days on which rain fell, 7.
 Average number of cloudy days, 8.
 Average number of clear days, 8.
 Average number of fair days, 15.
 Warmest days, 22d, 23d.
 Coldest days, 10th, 30th.
 Prevailing direction of wind, southwest.

REPORT OF THE MISSOURI WEATHER SERVICE, MAY, 1884.

The mean temperature during the past month was, at the Central Station 64°.7, which is 1°.6 below the normal for May.
 The maximum temperatures were on the 9th and 10th of the month almost all over the state. From the 10th to the end of the month a very even temperature, ranging around 70° at the Central Station, was noticeable, with a comparatively even daily range.

The lower minima were generally observed on the first and last days of the month.

The rainfall at the Central Station was but little over one-half the normal amount for Saint Louis, which is 4.72 inches. The largest amounts of rainfall were observed at stations in the upper Missouri river valley; the smallest amounts at Phelps City, in the extreme northwestern part of the state, and at Pleasant Hill and Harrisonville, in the central western part.

Large flakes of snow were observed on the 1st at Oregon.
 Hail was observed on the 12th at Saint Louis.
 The month has been remarkable for the prevailing cloudiness with a comparative deficiency of rain.

FRANCIS E. NIPHER, *Director*.

WASHINGTON UNIVERSITY, June 7, 1884.

The following meteorological summary is taken from the May report of the Illinois Department of Agriculture, Mr. S. D. Fisher, Secretary:

Districts.	Mean temperature.	Precipitation.
	°	Inches.
Averages for northern counties.....	59.55	3.38
Averages for central counties.....	60.91	4.39
Averages for southern counties.....	64.34	5.04
Averages for state.....	61.60	4.27

