

ers, planters, manufacturers, and others interested received timely warnings, and all portable property was removed to places of safety.

The highest and lowest water, mean stage, and monthly range at 194 river stations are given in Table VII. Hydrographs for typical points on seven principal rivers are shown

on Chart V. The stations selected for charting are Keokuk, St. Louis, Memphis, Vicksburg, and New Orleans, on the Mississippi; Cincinnati and Cairo, on the Ohio; Nashville, on the Cumberland; Johnsonville, on the Tennessee; Kansas City, on the Missouri; Little Rock, on the Arkansas; and Shreveport, on the Red.

CLIMATE AND CROP SERVICE.

By Mr. JAMES BERRY, Chief of Climate and Crop Service Division.

The following summaries relating to the general weather and crop conditions during June are furnished by the directors of the respective sections of the Climate and Crop Service of the Weather Bureau; they are based upon voluntary reports from meteorological observers and crop correspondents, of whom there are about 3000 and 14,000, respectively:

Alabama.—Month, as a whole, fairly favorable for crop growth, though rainfall insufficient in scattered portions; rains of last decade beneficial to all crops. Cotton, corn, and minor crops made satisfactory progress, except where rain was insufficient; cotton bloomed by 10th, and fruited satisfactorily during last two weeks, when early corn was earing well; oats and wheat harvested, oats light yield, but wheat good; early peaches marketed, with good yield; late peaches continued promising.—*F. P. Chaffee.*

Arizona.—Temperature averaged slightly below normal. The days were warm and the nights cool. Light frosts occurred in northern districts. The droughty conditions, which had prevailed for several months, continued during June. In the lower Colorado Valley crops made fine growth, but elsewhere crop conditions, which were poor at the beginning of the month, continued to deteriorate. Range feed and stock water were very scarce, and stock suffered greatly, with much loss by death.—*M. E. Blystone.*

Arkansas.—The temperature was below normal and the rainfall excessive. Large area overflowed in the Arkansas and Red River valleys first of month, causing loss of all crops; some overflowed land was replanted to corn and peas. Cotton small but healthy; made good growth; chopping about completed; some blooming. Corn about all laid by in good condition; full crop indicated. Potatoes good crop. Wheat and oat harvest progressing; yields satisfactory. Apples and peaches promise good crops.—*O. C. Burrows.*

California.—Northerly winds during the first half of the month caused still further damage to the grain crop, but fruit and grapes were not materially injured. More favorable weather prevailed toward the close and grain showed considerable improvement. Wheat, oats, and barley will fall below the average in yield and quality. Many varieties of deciduous fruits were yielding light crops. The hay crop now being harvested is unusually good. Grapes will yield a heavy crop.—*Alexander G. McAdie.*

Colorado.—Month favorable. Beet thinning finished, excellent crop. Some potatoes replanted in northern counties, at end of month crop was in good condition with early varieties ready for market. Rain caused rapid improvement in ranges in extreme southern counties and lower Arkansas Valley. Wheat and alfalfa generally good crops. Oats excellent. Corn backward and weedy, but improved rapidly with warmer weather. Fine prospects for fruit.—*F. H. Brandenburg.*

Florida.—The deficiency in rain, mostly over the cotton counties, with cool nights during the early part of the month retarded growth, but later warmth caused improvement; fruiting was heavy, though the plant was smaller than the average. Early corn was very poor; the late planted was good. Minor crops did well. Citrus fruits were in good condition, though much of the crop was lost during May drought. The pineapple crop was damaged by dry weather.—*A. J. Mitchell.*

Georgia.—The temperature was practically normal; the precipitation much below average. The distribution of rainfall was irregular. Drought prevailed in many sections, while in the extreme southeast and a few of the northeastern and northwestern counties the total falls varied from 5 to 8.50 inches. The outlook for cotton was generally encouraging; corn, as a rule, made satisfactory progress; wheat yielded well; large shipments of peaches were made.—*J. B. Marbury.*

Idaho.—The month was characterized by two cool periods, culminating in damaging frosts in many localities on the 11th and 12th and the 24th and 25th; potatoes, corn, sugar beets, and garden vegetables were badly frozen in exposed districts, and some alfalfa, small grain, and fruit were injured. With exception of these frost periods weather conditions were generally favorable, water for irrigation was abundant, and vegetation that escaped frost damage made satisfactory growth.—*Edward L. Wells.*

Illinois.—Corn made thrifty, but not rapid growth; oats were generally promising, although heading short; wheat harvesting was well under way at end of month with satisfactory yield; clover was yielding well in the southern half of State, but the crop was short in the northern district; berries were plentiful, but apples were unpromising.—*Wm. G. Burns.*

Indiana.—Precipitation was deficient, but fairly well distributed. The

daily mean temperature averaged about 2° below normal. Planting corn was finished about June 15; a good stand was secured and the crop, although late, was in fair condition. Wheat prospects improved until last week of month when it was attacked by rust; a very light crop was expected. Clover was weedy, and was being harvested. Oats, timothy, and potatoes grew well. Pear and apple trees suffering from blight.—*W. T. Blythe.*

Iowa.—June was deficient in temperature, rainfall, and sunshine. Rainfall was unequally distributed, ranging from less than an inch to more than 8 inches. And yet no part of the State suffered heavily from deficiency or excess. On the whole, the month was favorable for the staple farm crops, especially small grain, grass, and vegetables. Corn made a healthy start, though about a week late compared with average. Apples promising. Berry crop good.—*John R. Sage.*

Kansas.—Wheat harvest began in southern counties the third week and in central counties the fourth, greatly retarded by wet weather which also damaged some of the grain. Oat cutting began in extreme south last week; crop improved materially. Corn grew rapidly, tasseled in southern counties last week. Grass grew rapidly. First crop alfalfa cut early in month, much damaged by wet weather. Apples dropped badly in several counties, gave fair promise in others. Potatoes marketed in many counties, rotted badly in bottom fields.—*T. B. Jennings.*

Kentucky.—The precipitation was quite unevenly distributed, but nearly all sections received enough to keep crops in fair condition. Wheat made great improvement and was being harvested at the close of the month. The nights were too cool for the rapid growth of corn, but it kept vigorous. Less than the usual acreage of tobacco was set out and made good progress. Oats, rye, potatoes, and garden vegetables did well. Fruit did fairly well. Farm work was kept well up.—*H. B. Hersey.*

Louisiana.—Seasonable temperature and occasional showers proved very favorable for cotton, but there were several localities where the rainfall was not sufficient. The plant is small for the season of the year, but its general condition may be classed as good; early planted cotton is fruiting nicely. Corn suffered as a result of insufficient rainfall in parts of the eastern and southern districts, but was promising elsewhere. Sugar cane and rice did well. Truck gardens yielded satisfactorily. All crops were well cultivated.—*I. M. Cline.*

Maryland and Delaware.—June weather was favorable for agriculture. Rainfall was above normal for the first time since October, 1903. During the last decade wheat harvest made good progress, and much fine hay was secured. Corn was uneven and backward, but well tilled and thrifty. Oats were quite promising. Tobacco grew well and stands were fairly satisfactory. Peaches and apples were plentiful in some localities, but not generally. Other fruits were fair to good.—*Oliver L. Füssig.*

Michigan.—Most of month was cool, and a moderate drought prevailed during second decade. The cool, dry weather retarded germination and growth, particularly of corn. Lack of moisture was especially detrimental to meadows, oats, and barley, and shortened strawberry crop considerably. During last decade moderate showers greatly improved meadows, barley, oats, wheat, and rye, and the warmer temperatures forwarded corn and germination of beans and buckwheat. Generally, potatoes and sugar beets made good progress throughout month.—*C. F. Schneider.*

Minnesota.—A month of frequent showers and considerable cloudy weather. The rains were generally beneficial, those early in the month helping the recently seeded late oats, barley, flax, and fodder crops. Wheat, oats, and barley grew well all the month, and began heading toward its close. Corn was backward, and in many places poor. Flax and potatoes grew finely. Clover and timothy promised heavy crops. Light frost in northern portions on the morning of the 14th.—*T. S. Outram.*

Mississippi.—Crops were kept well cultivated and made fairly good growth. Stands of cotton were generally good; chopping was completed and by the close of the month blooming was becoming general; lice wrought slight damage east. Early corn did well, except east and south, where somewhat injured by dry weather; late corn was promising. Oats made a fair yield north. Peas were planted and generally came up to splendid stands. Sugar cane and melons did well. Peaches were plentiful.—*W. S. Belden.*

Missouri.—The first ten days were quite favorable for farming operations and plant growth, but the last three weeks were unfavorable because of too much rain. Over the greater portion of the northwest, southwest, and central sections all farm work was practically stopped; corn fields were foul with weeds; wheat harvesting was much delayed, and considerable damaged by rust; oats suffered from same conditions;

considerable hay damaged; apple prospects poor; peaches and other fruit fair to good.—*George Reeder.*

Montana.—First two weeks too cool and cloudy for rapid growth, although moisture was abundant; latter half generally warm and dry. Potatoes and garden truck damaged locally by frost during first and last decades. Ranges good and cattle and sheep gained rapidly. First crop of alfalfa a good yield; unirrigated meadows, oats, and spring wheat injured by drought in western counties. A good crop of apples and plums; cherries and berries excellent.—*R. F. Young.*

Nebraska.—Low temperature with excessive precipitation caused a rank growth of grass, wheat, and oats. Grass in pastures and ranges was unusually good. The hay crop will be large. Rust seriously damaged wheat in southeastern counties the last ten days of the month. Spring wheat and oats were little damaged by rust. Corn was small and weedy, as the low temperature caused slow growth and the wet condition of the soil retarded cultivation.—*G. A. Loveland.*

Nevada.—The month was moderately warm and unusually dry. Water was generally plentiful throughout the month for irrigation of crops. The hay, grain, and vegetable crops made rapid and satisfactory growth. Stock of all kinds did well, the range feed being fine and abundant. The harvesting of hay was pretty general the latter part of the month, and from one to two good crops of alfalfa were secured in excellent condition.—*J. H. Smith.*

New England.—Cool weather prevailed. Almost daily showers during the first decade were followed by generally fair weather with much sunshine. Killing frosts occurred in the northern section and light to heavy frosts in the southern near the close of the second decade. There was a steady improvement in crops during the month, and at its close they were, with slight exceptions, up to average condition and making satisfactory growth.—*J. W. Smith.*

New Jersey.—All growing crops have made good progress during the month. Frequent thunderstorms, heavy in places, were very beneficial. Oats, rye, wheat, and all truck crops were in good growing condition at close of the month, except in a portion of the southern section, where a marked deficiency of rainfall had shortened the yield of early potatoes and grass. Orchard fruits were not so promising, as the "June drop" was heavy.—*Edward W. McGinn.*

New Mexico.—Local showers occurred throughout the month, heaviest in the eastern half, but not sufficient in west and southwest to relieve the drought. There was, however, general improvement in stock, crops, range, and water supply, most marked in northeastern counties. A little planting was done, with fair germination, and irrigated crops did well. Alfalfa harvest continued throughout the month in northern counties.—*Charles E. Linney.*

New York.—Decided ranges in temperature, killing frosts occurring in places on the 10th, 11th, and 23d. Large part of rain fell during first nine days; insufficient precipitation during latter half of month. Corn very backward. Wheat and rye poor. Yield of hay diminished by the drought. Potatoes, oats, and barley backward, but in fine condition. Beans, tobacco, grapes, garden truck, sugar beets, and hops good. Early sown buckwheat in bloom. Apples promising. Peaches, pears, plums, and cherries light.—*R. G. Allen.*

North Carolina.—Rainfall in eastern counties deficient; elsewhere the month, as a whole, was favorable. Cotton was practically free from lice and made satisfactory growth. Corn grew to good stands. Harvesting wheat and oats nearly completed; yield and quality of wheat excellent; oats fair. Tobacco was thrifty the whole month, though slightly backward. Planting sweet potatoes and digging Irish potatoes completed. Fruit, except apples, looked promising.—*A. Wiesner.*

North Dakota.—Very heavy rainfall during the month completely saturated the ground, and in some low places, especially in the lower Red River Valley, caused considerable damage to grain. In other sections the rains were beneficial, and all small grain, except flax, was in excellent condition. The temperature, while only slightly below normal, had an unfavorable effect on corn, and at the close of the month the crop was very backward. Prairie and tame grass promised an abundant crop.—*B. H. Bronson.*

Ohio.—Temperature and precipitation were slightly below normal. The heaviest rains occurred mostly on the 1st, 21st, 28th, and 30th. Corn was in good condition. Wheat improved beyond expectations, but there was complaint of red and black rust. Oats were very promising. Rye and barley improved. Buckwheat was being seeded. Potatoes and garden crops made favorable progress. Tobacco plant setting practically completed.—*J. Warren Smith.*

Oklahoma and Indian Territories.—Month marked by the heaviest precipitation for the past fourteen years; considerable damage to crops by water and hail in some localities. Wheat and oat harvest about completed, yields poor to fair. Corn made fair to good growth, with prospect for excellent yield. Cotton did well in most localities, and generally in good state of cultivation. Kafir, broom corn, cane, millet, milo maize, and castor beans in good condition. Fruit continued to do well and was ripening.—*C. M. Strong.*

Oregon.—The month was dry and warm. The rains that fell were beneficial to all crops, but more were badly needed. Fall wheat, oats, and barley headed and filled nicely. The late sown grains grew poorly and the indications were for light yields. Pastures were drying up, but stock

continued in good condition. The hay crop was very uneven, being generally much below the average. Gardens and root crops made poor growth.—*Edward A. Beals.*

Pennsylvania.—Temperature and rainfall practically normal. Month closed with oats, potatoes, clover, and timothy in excellent condition; pastures furnishing ample feed; tobacco plants somewhat backward, but thrifty, of good color, and promising; berries and garden truck plentiful, and fruit, peaches excepted, as good as or better than anticipated. Haying, harvesting, and cultivation were well under way, but a large acreage of corn that had been replanted needed more warmth and sunshine to insure its proper development and maturity.—*T. F. Townsend.*

Porto Rico.—Weather generally very dry after the first week, especially in the southern division. Late planted small crops were lost in places and cotton and cane were injured. Sugar making ended at most haciendas; yield generally satisfactory. With normal weather conditions the next cane crop promises to be large. Coffee trees withered and some berries fell. Cotton and small crops were planted and corn, beans, and rice harvested. Alligator pears were maturing and pineapples had become abundant. Pasturage was becoming scarce.—*E. C. Thompson.*

South Carolina.—Excepting a few cool nights, the temperature was favorable for crop development. Precipitation was deficient over nearly half the State and it was excessive over small areas. Corn, cotton, tobacco, rice, and other field crops improved where the rainfall was ample, and made very satisfactory growth generally, especially cotton, which, on sandy lands, fruited heavily and began blooming. Peaches ripened, with the quality of the fruit unsurpassed. Wheat and oat harvest and thrashing were finished.—*J. W. Bauer.*

South Dakota.—Conditions were favorable for spring wheat, oats, barley, rye, spelt, grass, potatoes, flax, and millet. Corn was healthy, but cool nights and frequent showers retarded its growth and cultivation somewhat. Pasturage and hay grass were excellent. By the 30th early wheat was heading, and barley, rye, and spelt were either in head or heading, with bright outlook for all small grains, except that some wheat was weedy. Range live stock gained flesh rapidly. There was slight local damage from hail.—*S. W. Glenn.*

Tennessee.—The month was favorable to crops. The rainfall was unevenly distributed, but generally sufficient. Corn was mostly laid by, was generally in fine condition and very promising. Cotton and tobacco were doing well. Wheat was about all in shock, and a much better crop than had been expected. Oats were being harvested, with good yields. Much good hay was saved. Gardens and truck crops were good. Apples and peaches generally promised good crops.—*H. C. Bate.*

Texas.—The rainfall was well distributed through the month and over the State. The temperature conditions were favorable for plant development. Cotton made rapid growth; some fields became foul in the northeastern part of the State, but the crop was generally kept in a fair state of cultivation; the plants were fruiting nicely in all sections of the State by the close of the second decade; boll weevils increased in number and at the close of the month were present and doing damage in the southwestern, central, eastern, and coast divisions. Corn matured nicely, and by the close of the month a large crop was assured. Frequent showers interfered with the harvesting of wheat, oats, barley, and rye, but this work was generally completed by the close of the second decade. Rice and sugar cane were in good condition at the close of the month. Ranges, pastures, hay, and forage crops did well; some hay was cut.—*L. H. Murdock.*

Utah.—The temperature was below and the precipitation about normal. Crops made rapid growth, and by the close of the month wheat was heading and harvesting had begun in the southern counties; the stand was good and all indications pointed to large yields. Rye, oats, and barley were in good condition. The first crop of alfalfa had been gathered. Fruit prospects were bright; potatoes were being marketed; ranges were excellent, and stock was thriving.—*R. J. Hyatt.*

Virginia.—The weather conditions throughout the month were, in the main, cool and moist. Crops, however, made very good progress. Wheat and winter oat harvest was general in the last decade; the yields of each were less than average, though wheat was of fine quality. Spring oats were quite promising, and corn made excellent progress. Good stands of tobacco were generally secured. The fruit crop, especially apples, was unpromising. Minor crops did well.—*Edward A. Evans.*

Washington.—Nearly average rainfall, but badly distributed, the last week being entirely without rain, except a few showers in eastern counties. Temperature seasonable, except severe frost on 23-24th, which injured wheat, oats, corn, potatoes, beans, peas, and other vegetation. Wheat was not shriveled or burned by hot winds, and winter wheat headed and filled in excellent condition. Crops have not done as well as was expected, which was probably due to great deficiency of rain in May.—*G. N. Salisbury.*

West Virginia.—The weather was generally favorable for crop growth, but cultivation was considerably delayed during the first two weeks. Corn and potatoes made excellent growth, although the nights were somewhat too cool for corn. Wheat and rye improved greatly, and meadows made rank growth. Clover was harvested with a fair yield. Pastures were never better, nor stock in finer condition. Oats, gardens, cow peas, and millet did well, but apples and peaches continued to fall, and the outlook was less favorable.—*E. C. Vose.*

SUMMARY OF TEMPERATURE AND PRECIPITATION BY SECTIONS, JUNE, 1904.

In the following table are given, for the various sections of the Climate and Crop Service of the Weather Bureau, the average temperature and rainfall, the stations reporting the highest and lowest temperatures with dates of occurrence, the stations reporting greatest and least monthly precipitation, and other data, as indicated by the several headings.

lowest temperatures, the average precipitation, and the greatest and least monthly amounts are found by using all trustworthy records available.

The mean departures from normal temperature and precipitation are based only on records from stations that have ten or more years of observation. Of course the number of such records is smaller than the total number of stations.

The mean temperatures for each section, the highest and

Section.	Temperature—in degrees Fahrenheit.								Precipitation—in inches and hundredths.							
	Section average.	Departure from the normal.	Monthly extremes.						Section average.	Departure from the normal.	Greatest monthly.		Least monthly.			
			Station.	Highest.	Date.	Station.	Lowest.	Date.			Station.	Amount.	Station.	Amount.		
Alabama	77.8	-0.5	Opelika	103	6	Ashville	47	15	2.94	-1.33	Opelika	6.46	Letohatchie	0.40		
Arizona	78.0	-1.0	Aztec	117	18	Grand Canyon	30	1	0.09	-0.16	Fort Grant	0.61	14 stations	0.00		
Arkansas	75.6	-1.3	Oregon	99	13	Dutton	50	7	7.11	-2.95	Arkadelphia	12.03	Osceola	2.42		
California	71.1	+1.3	Indio	116	12	Bodie	21	9	0.04	-0.27	Zenia	1.24	Many stations	0.00		
Colorado	50.0	-3.9	Volcano Springs	116	11-13	Lamar	30	6	2.59	+1.09	Blaine	8.05	Delta	0.20		
Florida	79.2	-0.6	Lake City	102	19	Tallahassee	52	13	6.17	-0.84	Myers	14.86	Tallahassee	1.33		
Georgia	77.4	-0.6	Hawkinsville	102	21	Clayton	44	13	2.95	-1.79	Waycross	8.52	Milledgeville	0.79		
Idaho	59.6	-2.2	West Point	102	17	Paris	15	24	1.18	-0.01	Grangeville	3.44	Burnside	0.14		
Illinois	69.6	-2.2	Garnet	102	29	Antioch	39	17	3.02	-1.01	Mascoutah	6.90	Chicago	0.55		
Indiana	63.6	-2.1	Peoria	96	23	Syracuse	43	1	3.03	-1.35	Holland	7.63	Rensselaer	0.52		
			Mount Vernon	96	25	Topeka, Winamac	43	15								
			Rome	96	23	Northfield	43	12								
Iowa	67.1	-2.5	Clinton, Ridgeway	94	23	Charles City	35	2	3.45	-1.05	Humboldt	8.35	Amara	0.59		
			Ruthven	94	23	Hoxie	35	5,6	7.04	+2.36	Fall River	16.07	Dodge	2.02		
			Larrabee	94	24	Berea	48	10	3.14	-0.94	Leitchfield	6.03	Franklin	1.45		
Kansas	70.4	-3.2	Medicine Lodge	100	18	Calhoun	56	14	3.89	-1.65	Grand Coteau	7.45	Port Eads	0.64		
Kentucky	73.2	-1.0	Owenton	99	26	Chewsville, Md.	30	12	4.52	+0.97	Great Falls, Md.	9.94	Seaford, Del.	2.02		
			Collinston	99	17	Humboldt	21	16	1.88	-1.66	Harrisville	5.68	Owosso	0.35		
Louisiana	80.0	+0.5	Franklin, Liberty-hill, Minden	99	18	Milaca	30	15	4.26	+0.05	Zumbrota	8.40	Faribault	2.08		
Maryland and Delaware	70.2	-1.1	Millshoro, Del.	99	26	Tupelo	50	15	4.37	-0.59	Greenville	8.82	Okolona	0.95		
Michigan	63.6	-0.9	Grayling	94	24	Maryville	45	27	6.42	+1.47	Nevada	13.79	Princeton	1.60		
Minnesota	63.2	-1.9	Halloock	90	16	Seymour	45	7	2.70	-0.95	Springbrook	3.54	Anaconda	T.		
Mississippi	78.5	-0.4	New London	90	18	Grayling	20	11	1.44	-0.74	Burwell	9.79	Lodgepole	2.00		
			Macon	102	27	Kennedy	31	26	4.71	-0.74	Hawthorne, Wood	0.27	13 stations	0.00		
			Shoecoe	102	18	Eureka	11	3	0.04	-0.34	S. Egremont, Mass.	10.17	Chelsea, Vt.	0.86		
Missouri	70.5	-3.3	Jackson	93	16	Newton, N. H.	31	10	3.06	-0.13	Tuckerton	5.44	Bridgeton	1.91		
			Princeton, Protem.	93	20	Jacksonville, Vt.	31	19	3.13	-0.40	Carlsbad	5.13	Los Lunas	0.00		
Montana	58.6	-0.8	Ridgeland	105	16	Winooski	25	4	1.66	+0.19	Gansevoort	7.27	Youngstown	0.93		
Nebraska	66.2	-2.8	Kennedy	97	18	Paul Smith	29	12	3.38	-0.51	Rockingham	8.77	Kinston	1.29		
Nevada	63.6	+1.0	Martin's Ranch	106	28	Linville	35	14	4.60	+0.10	Cando	9.84	Medora	2.01		
New England*	63.3	-2.1	Norwalk, Conn	98	26	Minnewaukon	30	15	5.77	+1.74	Cadiz	5.65	Toledo No. 2	0.48		
			Bridgeton	100	25	Hillhouse	37	23	2.88	-1.06	Fort Reno, Ind. T.	16.50	Kenton, Okla.	1.14		
New Jersey	68.1	-1.1	Alamogordo	104	10	Beaver, Okla.	41	27	3.23	+5.31	Riverside	2.22	Roseburg	0.08		
New Mexico	69.2	-1.3	Mount Hope	98	26	Blalock	107	29	0.80	-0.71	Milford	96	Herr's Island Dam	6.67	Confuence	1.62
New York	65.3	+0.2	Southern Pines	102	4	Milford	96	25	4.06	+0.07	Selinus Grove	96	Coloso	16.46	Ponce	T.
North Carolina	73.4	-0.9	Minot	100	16	Coatesville, Philadel-phia (Cent. Ave.)	96	26	4.06	+0.07	Manati	97	Effingham	11.17	Aiken	0.55
North Dakota	61.4	-1.7	Bladsburg	98	23	Manati	97	15	3.92	Adjuntas	55	Spearfish	9.10	Redfield	1.43
Ohio	68.4	-1.6	Taloga, Okla.	101	26	Adjuntas	55	5	3.92	Heath Springs	48	Celina	7.13	Clinton, Sewanee	1.46
Oklahoma and Indian Territories.	75.1	-1.2	Blalock	107	29	Heath Springs	48	14	4.06	-1.09	Saluda, Santuc	48	Arthur City	11.75	El Paso	0.54
Oregon	60.7	+0.5	Milford	96	25	Saluda, Santuc	48	15	4.06	-1.09	Highmore	32	Coyote	2.80	4 stations	T.
Pennsylvania	67.9	-0.6	Selinus Grove	96	25, 26	Highmore	32	6	4.07	+0.43	Silver Lake	42	Lincoln	11.40	Columbia	2.79
Porto Rico	78.0	Coatesville, Philadel-phia (Cent. Ave.)	96	26	Highmore	32	6	4.07	+0.43	Highmore	32	Clearwater	4.14	Trinidad	0.00
South Carolina	77.0	-1.3	Manati	97	15	Highmore	32	6	4.07	+0.43	Highmore	32	Moorefield	8.29	Bancroft	2.05
South Dakota	64.5	-2.4	Blackville	102	4	Highmore	32	6	4.07	+0.43	Highmore	32	Barron	8.45	Brodhead	0.85
Tennessee	74.0	-0.7	Ashcroft	98	28	Highmore	32	6	4.07	+0.43	Highmore	32	Lusk	5.83	Thermopolis	0.34
Texas	79.9	-1.2	Cheyenne Agency	98	17	Highmore	32	6	4.07	+0.43	Highmore	32				
Utah	63.3	-2.9	Popo	98	19	Highmore	32	6	4.07	+0.43	Highmore	32				
Virginia	71.4	-1.0	Fort Kinggold	107	3	Highmore	32	6	4.07	+0.43	Highmore	32				
Washington	60.0	-0.4	St. George	102	13, 19	Highmore	32	6	4.07	+0.43	Highmore	32				
West Virginia	69.5	-1.1	Buckingham	98	26	Highmore	32	6	4.07	+0.43	Highmore	32				
Wisconsin	63.9	-2.4	Kennewick	107	29	Highmore	32	6	4.07	+0.43	Highmore	32				
Wyoming	56.6	-2.6	Ryan	97	3	Highmore	32	6	4.07	+0.43	Highmore	32				
			Beloit	93	24	Highmore	32	6	4.07	+0.43	Highmore	32				
			Basin	98	19	Highmore	32	6	4.07	+0.43	Highmore	32				
			Hyattsville	98	18	Highmore	32	6	4.07	+0.43	Highmore	32				
						Y. N. Park	13	3	1.62	+1.09						

* Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, and Connecticut.

Wisconsin.—The temperature conditions were fairly equable, except for the first decade, when decidedly cool weather prevailed. Frost occurred in exposed localities in the northern counties, but caused no material damage. The rainfall was unevenly distributed, being excessive in portions of the northern section and deficient in many localities elsewhere. Crops made fairly good progress, except corn, which was generally small and backward.—*W. M. Wilson.*

Wyoming.—The month was unusually cool, and killing frosts with freezing temperatures prevailed over much of the State on the 25th, damaging potatoes and gardens, and in some sections grain and alfalfa. The rains were excessive in some sections, and ranges kept in excellent condition. Meadows made good growth, and a good first crop of alfalfa was secured. Streams were high, and water plentiful; very little irrigation was necessary.—*W. S. Palmer.*

SPECIAL ARTICLES.

FREDERIC HENRY CLARKE.

Frederic Henry Clarke, Local Forecaster, United States Weather Bureau, died on the 8th day of June, 1904, at Scranton, Pa. He was born in Fairfax County, Va., on the 26th day of February, 1857, educated in the public schools of Washington, D. C., and on the 3d day of March, 1879, en-

tered the meteorological service of the Signal Corps, United States Army, as second-class private. He rose to a sergeancy, August 17, 1885, and, on the transfer of the meteorological service to the Department of Agriculture, became an observer in the Weather Bureau, and finally attained the responsible position he held at the time of his decease.