

## **Historic, Archive Document**

Do not assume content reflects current scientific knowledge, policies, or practices.



A341  
M34M  
Copy 2

MONTANA WEATHER AND CROP SUMMARY

U.S. DEPARTMENT OF AGRICULTURE  
Statistical Reporting Service Cooperating with  
AGRICULTURAL EXTENSION SERVICE  
Montana State University

U.S. DEPARTMENT OF COMMERCE  
Weather Bureau  
Released April 14, 1967

U.S. DEPT. OF AGRICULTURE  
NATIONAL AGRICULTURAL LIBRARY  
NOV 14 1971  
AGRICULTURAL EXTENSION SERVICE  
SERIAL RECORDS

WEATHER SUMMARY, 6-MONTHS, OCTOBER 1966 THROUGH MARCH 1967

TEMPERATURE October 5-8 most places reported maximums in the high 70's and low 80's. Warmest of the autumn was 85 degrees at Loma 1 WNW, Phillips 13, and Roy 24NE the 6th. Otherwise October temperatures averaged near seasonal or only slightly cooler all sections, and practically all stations had experienced the first fall freeze by the 15th. For November the Western and Southwestern divisions recorded averages warmer than normal; other divisions were 2 to 5 degrees cooler than normal. The first zero readings occurred November 7 in the north-central portion, and zero or colder was observed at most East of the Divide stations the 8th through the 12th. West of the Divide zero temperatures did not occur until later in the season and a few stations experienced a zero-free winter. December temperatures averaged below normal in the North-Central, Central, South-Central, and Southeastern divisions, but above in others. Cloudy windy weather brought abnormal warmth to all divisions in January and February; however invasions of Arctic air dropped minimums to below zero for short intervals. The coldest temperatures of the winter occurred on January 7th and 17th East of the Divide, and on the 24th West, when minimums fell to below zero generally. Opheim 10N observed the coldest, -48° January 7. Warmest days during this period were February 27 and 28 with maximums in the high 50's and 60's. Invasions of Arctic air again brought colder weather to all the State March 7th and 10th. Temperatures during March averaged colder than normal in practically all sections except in the south portion. The winter averaged quite warm as a whole.

PRECIPITATION Six-month precipitation totals exceeded normal at all but a few West of the Divide and eastern stations. October precipitation was deficient all areas except the North-Central and Central divisions, but in November the only division to receive less than usual rain or snow was the Southwestern. Statewide, December precipitation averaged close to normal, but the Western, Southwestern, South-Central, and Northeastern divisions had less than seasonal averages. January moisture exceeded normal all sections with heavy snowfall high elevations. Although more than normal precipitation fell, much warmer than seasonal temperatures melted the snow in most of the lower valleys and plains. Only the Northeastern, South-Central, and Southeastern divisions received more than normal February precipitation. More than usual rain and snow fell during March with only a few extreme northwest and southeastern stations receiving less than normal rainfall. It was a generally quite wet six-month period.

SEVERE STORMS The afternoon and night of January 15th, 30 to 60 MPH winds blowing eastward over the State damaged power and telephone lines, and caused considerable damage to sign boards, homes, and other structures. A Townsend man was injured when he was thrown to the ground while opening a storm door. On January 19, wind speeds reached 50 to 85 MPH some sections Missouri headwaters and south-central portion. Some power line and structural damage was reported. High wind February 4 in the Choteau area blew a fence onto a little girl and injured her. Strong winds in Billings the afternoon of February 21 whipped open a storm door, threw a woman to the ground and broke her leg. Considerable soil erosion occurred during these windstorms especially in the central third of the State from north to south. March 6, during blizzard-like conditions, a Big Hole ranch hand's team bolted and he became lost in the storm. Several hours later he was found by searchers. After a few days in the hospital because of exposure and frost bite, he fully recovered. March 30, a Scobey man died from exhaustion and exposure when his pick-up truck stalled on a snow blocked highway and he became lost in a heavy snowstorm while walking to a nearby ranch home.

WATER SUPPLY FORECASTS AS OF APRIL 1, 1966

COLUMBIA BASIN DRAINAGE The following streamflows are expected April-September in Columbia River tributaries and are expressed in percentage of the average streamflow for the 15-year period 1948-62. Kootenai at Libby, 121%; Clark Fork above Missoula, 116%; at St. Regis, 109%; and Plains, 121%; Blackfoot at Bonner, 118%; Bitterroot at mouth, 105%; Flathead at Columbia Falls, 126%; Polson, 127%; Middle Fork Flathead at West Glacier, 123%; and South Fork Flathead near Columbia Falls, 125%. The above forecasts are based on the assumption that spring-summer precipitation will be near normal.

MISSOURI RIVER DRAINAGE The forecast flows for April-September in percent of the 1948-62 averages are given for the following rivers; Missouri at Toston and into Fort Peck reservoir, 123%; Marias at Shelby, 120%; Yellowstone at Corwin Springs, 108%; at Billings, 115%; and at Sidney, 117%. For the water year October 1966-September 1967, in percent of 1948 averages the following river flows are expected: Red Rock at Monida, 148%; Beaverhead at Barratts, 98%; Big Hole at Melrose, 98%; Boulder near Boulder, 116%; Jefferson at Sappington, 102%; Madison near McAllister, 109%; Gallatin at Logan, 123%; Sun River inflow at Gibson



reservoir, 115%; and at Vaughn, 120%; Shields at Clyde Park, 125%; Clarks Fork at Edgar, 114%; and Musselshell at Harlowton, 125%.

On the Milk River at Eastern Crossing the expected flow is 116% of the 1948-62 March-September average.

The above forecasts are also based on the assumption that spring-summer precipitation will be near normal, and represent an expectation of plentiful water supplies during the 1967 season.

CROP AND LIVESTOCK SUMMARY, 6 MONTHS, OCTOBER 1966 THROUGH MARCH 1967

HARVEST Harvest of late season crops in the fall of 1966 progressed normally with little interference from unfavorable weather. By the first of October 90 percent of the corn silage and flaxseed had been harvested, 75 percent of the dry beans were combined and 25 percent of the potatoes had been dug. Lifting of the third largest sugar beet crop of record was getting underway and was completed by the second week in November. Corn silage harvest was completed by October 10. Harvest of an above average potato crop was completed by the end of October and dry beans were harvested by the 20th of October.

WINTER WHEAT Winter wheat seeding was 85 percent complete by October 1, far ahead of the previous year when persistent rain delayed progress. Only 45 percent was sown by the comparable date in 1965. Seeding of the current crop was completed by about the normal date of mid-October.

Moisture was adequate for germinating the seed. Practically all seedings had emerged by early November but stands were uneven in many areas because of lack of moisture.

Grasshopper damage to newly emerged seeding was limited mostly to field borders. In early December weather crop correspondents rated the condition of winter wheat as good except in the central district where it was only fair. The crop was intermittently covered by snow during the winter. Winter wheat remained dormant until late March when it began greening in favored areas. High winds caused some damage from soil blowing mainly in north central and central areas.

By late March field tillage work was getting underway in some southern counties but was interrupted by adverse weather just prior to April 1.

RANGE LIVESTOCK About 45 percent of the range livestock had been moved from summer ranges back to the home ranch or to market by October 1. This movement was completed in late October. In early November a snowstorm forced most ranchers to begin winter feeding. However, the snow thawed rapidly in western and southern counties, and livestock went back to grazing crop residues and range forage. Icy conditions made it difficult for cattle and other livestock to secure footing in north central and eastern areas in January. By February 1 about 95 percent of the range livestock was receiving supplemental feed, about normal for that date. The relatively mild winter was favorable for livestock and conserved hay supplies. No great shortages developed, except in localized areas mostly in the southern part of the State.

Calving, lambing and shearing started in early February. Lambing and calving were about one-third completed by the end of March and shearing was nearly two-fifths complete.

PRECIPITATION: 6-Month Total, October 1966 - March 1967 (Inclusive)

Station	Precipitation	6-Month Normal	Station	Precipitation	6-Month Normal
<u>WESTERN DIVISION</u>					
Alberton	9.59		Missoula WBAS	4.77	5.49
Big Arm	7.97		Olney 1 E	15.67	
Big Fork 13 S	13.57		Paradise	11.02	
Creston	9.54		Philipsburg	4.54	5.23
Darby	8.45	8.24*	Pleasant Valley	10.46	10.85
Deer Lodge 3 W	2.20		Polebridge	15.94	
Drummond	4.83	3.74*	Polson Kerr Dam	6.19	
East Anaconda	6.17	4.79	Potomac	6.96	
Elliston	6.00		St. Ignatius	6.70	5.79
Essex	27.87		St. Regis	16.07	
Eureka	8.41		Seeley Lake	17.39	
Fortine 1 N	8.48	8.44	Stevensville	6.09	6.14
Hamilton	4.81	5.55	Summit	31.70	
Haugan	24.17	22.27	Superior	9.89	8.78
Heron 2 NW	26.18	24.10	Swan Lake	21.30	
Hungry Horse Dam	22.78		Thompson Falls	15.97	12.62
Kalispell WBAS	8.24	7.33	Trout Creek	21.54	
Kalispell	7.16		Troy	18.39	
Kila	7.45		West. Mont. Br. Sta.	3.77	
Libby 1 NE	12.65	11.77	West Glacier	20.67	16.32
Libby 32 SSE	18.86				
Lindbergh Lake	19.17				
Lolo Hot Spgs. 2NE	15.28				
Lonepine 1 WNW	5.68	5.89			

\*Estimated Normal

PRECIPITATION: 6-Month Total, October 1966 - March 1967 (Inclusive)

Station	Precipitation	6-Month Normal	Station	Precipitation	6-Month Normal
<u>SOUTHWESTERN DIVISION</u>					
Alder 17 S	4.32		Hebgen Dam	19.85	14.53
Belgrade AP FAA	5.40	4.17*	Jackson	3.90	
Boulder State School	3.80		Lakeview	10.73	
Bozeman MSU	8.41	6.43	Lima	2.32	2.72
Bozeman 6 W	5.25		Norris 3 ENE	6.43	
Bozeman 12 NE	16.52		Norris, Madison PH	5.90	5.84
Butte Airport FAA	3.06	3.15	Pony	6.00	
Dillon Airport FAA	2.60	2.12*	Trident	3.74	
Dillon WMC	2.91	3.22	Twin Bridges	3.60	
Divide 2 NW	3.82		Virginia City	5.81	4.42
Ennis	4.35	2.28	West Yellowstone	15.07	11.59
Gallatin Gateway 26S	5.10		Whitehall	3.26	2.11*
Glen 4 N	2.08		Wisdom	3.44	
<u>NORTH CENTRAL DIVISION</u>					
Babb 6 NE	5.44	6.02	Illiad	6.50	
Big Sandy	4.54	2.83	Joplin 1 N	2.29	
Blackleaf	2.09		Loma 1 WNW	6.33	
Brady Aznoe	3.77		Lonesome Lake	5.21	
Browning	6.83	4.64	Loring 10 N	4.21	
Chester	4.34		Malta	3.10	3.00
Chester 26 NNW	4.98		Malta 35 S	3.36	
Chinook	4.61	3.27	Phillips 1 S	2.57	
Choteau	4.13	2.11	Rudyard 30 N	4.94	
Cleveland 5 ENE	4.87		Saco 1 NNW	2.99	
Conrad	3.37	2.69	Santa Rita 14 N	5.95	
Content	2.15		Shelby Airport	2.13	
Cut Bank Airport	2.50	2.41	Shonkin 7 S	13.64	
Del Bonita	3.99		Simpson 6 NW	3.24	2.04
Dunkirk 14 NNE	3.27	2.73	Sweetgrass	2.34	
Fairfield	4.08	2.40	Swift Dam	10.24	
Forks 4 NNE	4.03		Telegraph Creek	3.56	2.76
Fort Assiniboine	4.53	2.69	Tiber Dam	3.71	
Fort Benton	7.27	4.45*	Turner	4.40	
Geraldine	5.64		Valier	3.95	2.50
Gildford	4.59		Zortman	6.33	
Goldbutte 7 N	5.01				
Harlem	4.03	3.35			
Havre WBAS	3.71	3.28			
<u>CENTRAL DIVISION</u>					
Augusta	3.38	3.76	Martinsdale 3 NNW	5.27	3.05*
Austin 1 W	6.29		Melstone	4.46	3.30
Barber	4.16		Moccasin Exp. Sta.	4.70	3.09
Canyon Ferry PH	4.58		Neihart	10.92	
Cascade 5 S	5.30	3.82	Rogers Pass 6 NNE	3.92	
Cascade 20 SSE	5.91		Roundup	4.46	2.71
Flatwillow 4 ENE	4.08	3.04	Roy 8 NE	4.37	
Gibson Dam	5.93	5.43	Roy 24 NE Moberidge	4.09	
Grass Range	5.42		Ryegate 18 NNW	5.32	
Great Falls WBAS	7.51	4.35	Stanford 1 WNW	4.84	3.77
Harlowton	4.02		Sun River 5 SW	4.90	
Helena WBAS	5.07	3.36	Toston 3 SW	5.41	
Holter Dam	3.34	3.42	Townsend	3.92	
Judith Gap 13 E	5.70		Utica 11 WSW	6.43	
Lenep 5 SW	7.18		White Sulphur Sprgs.	4.63	7.27
Lewistown Airport	7.66	4.50	White Sul. Sprgs. 24NW	5.42	
Lincoln RS	11.92		Winifred	6.50	3.70

\*Estimated Normal



**PRECIPITATION: 6-Month Total, October 1966 - March 1967 (Inclusive)**

Station	Precipitation	6-Month Normal	Station	Precipitation	6-Month Normal
<u>SOUTH CENTRAL DIVISION</u>					
Ballantine	3.31	3.59	Hysham 19 SSE	3.37	
Belfry 9 SSW	2.62		Joliet	4.99	
Big Timber	4.51	4.30	Kirby 1 S	6.40	
Billings Water Plant	3.44	3.97	Livingston	6.73	4.29
Billings WBAS	4.82	4.50	Livingston Airport	5.22	4.14*
Bridger	2.76		Melville 4 W	5.88	
Broadview	3.35		Mystic Lake	12.97	8.77
Busby	4.49	3.22	Rapelje 4 S	5.58	3.70
Columbus	4.17	3.75	Red Lodge	12.79	6.63
Crow Agency	4.87	5.12	Wilsall	6.66	
Custer	4.63		Wilsall 8 ENE	7.95	
Gardiner	3.32		Wyola	4.52	5.13*
Hardin	3.49		Yellowstone Park NE Ent	15.31	
Huntley Exp. Sta.	4.05	3.52	Yellowtail Dam	6.73	
Hysham	4.87				

NORTHEASTERN DIVISION

Bredette	4.24		Mosby 2 ENE	3.55	
Brockway	1.97		Mosby 18 N	2.57	
Circle	1.99	2.05*	Nohly 3 WNW	2.54	
Culbertson	3.60	2.58	Opheim 10 N	3.95	
Ft. Peck Power Plant	2.88		Opheim 12 SSE	2.02	
Glasgow WBAS	3.17		Poplar	2.70	2.37
Glendive	2.75	2.82	Raymond Brdr. Sta.	4.73	
Haxby 18 SW	3.29	3.11	Redstone	3.75	
Hinsdale	4.88		Richey	2.81	
Jordan	3.12	2.50	Savage	2.54	2.59
Jordan 22 E	2.88		Scobey	3.18	
Lambert	2.01		Sidney	3.74	2.76*
Lustre 4 NNW	3.65	1.97	Vida	5.11	4.43
Medicine Lake 3SE	4.89	2.42	Westby	3.54	
			Wolf Point 4 ESE	3.85	

SOUTHEASTERN DIVISION

Albion 1 N	3.25		Miles City	3.95	
Biddle 8 SW	2.25		Miles City Airport	4.66	3.13
Birney 2 SE	2.51		Mizpah 4 NNW	3.04	
Boyes	2.24		Moorhead 9 NE	3.57	
Brandenberg	4.07		Otter 9 SSW	5.37	
Broadus	3.20		Plevna	2.53	2.90
Carlyle 10 W	3.56		Powderville 8 NNE	2.56	
Colstrip	5.32	4.65	Ridgway 1 S	2.56	
Ekalaka	3.15	2.90	Sonnette 2 WNW	3.22	
Ingomar 11 NE	2.21		Terry	1.22	
Mildred	2.03		Terry 21 NNW	2.30	
			Wibaux 2 E	1.81	

Estimated Normal

Frasier T. Galloway, Agr. Statistician in Chg.  
Statistical Reporting Service

R. A. Dightman, U.S. Weather Bureau  
T. S. Aasheim, Extension Service

After Five Days Return to  
UNITED STATES DEPARTMENT OF AGRICULTURE  
Statistical Reporting Service  
P. O. Box 1726 - Helena, Montana 59601

Postage and Fees Paid  
U.S. Department of Agriculture

OFFICIAL BUSINESS