

THE BUREAU REPORT.

During the winter of 1893-4, which was not a severe one, less than the usual amount of snow fell in the mountains, especially in Southern and central Utah; and, notwithstanding a late spring, the melting snow furnished a scantier irrigation supply than during the average season. In northern Utah this scarcity was compensated for by an unusual frequency of showers during the season, which appear to have had a very beneficial effect upon the crops; southern Utah was not so fortunate in this respect, showers not occurring until late in the season. Dew, also, appears to have been more abundant than usual during the season.

Diminished as the water supply for irrigation was, the general yield of the various crops was so bountiful that several intelligent observers have expressed the opinion that less water is needed for successful irrigation than has been used in times past. But the success of the past season may have been due to an unusual frequency of showers helping out the irrigation supply, and succeeding seasons may be far different, and crops require more watering. Whether the growth of groves and general vegetation, the cultivation of the soil, and the extending of canals and ditches over the valleys is gradually rendering irrigation less of a necessity by increasing the supply of moisture in the air from evaporation, thus producing more rain in the valleys, or at least a more uniform distribution throughout the year, is a question that can only be speculated upon at present as it needs many more years of observation to determine it definitely.

The spring was cold and backward, frequent frosts and snows occurring up to the first day of May, a general frost as late as May 16th, and frost in the higher valleys on the 14th of June.

General farming operations began, on an average, about the 1st of April; being in the extreme north about two weeks later. The lack of precipitation for two weeks or more after the snow had gone off rendered the soil quite dry. It was too dry for plowing and harrowing, and a warm rain was needed to sprout the grain that had been sown and bring it through the crust. Spring wheat was not all sown until the first of May; by that time fall wheat began to look well, abundant rains during the latter days of April having given an impetus to vegetation.

The succeeding two weeks were dry. Spring grain at the end of this period looked thin, and in need of rain. Heavy showers about the 21st of May gave a decided impulse to the growth of all grain.

Corn and potato planting was finished in the north by the close of the month, and in the south potatoes were in bloom. On June 7th a cool spell began, during which the weather was favorable for small grain only, and both winter and spring wheat began to look fine, the former heading out. The cool spell lasted until the 16th, the frosts in the colder valleys nipping the vines of potatoes, etc., severely on the 14th.

A long spell of seasonable weather followed, with showers at frequent

intervals, lasting up to September 1st. During this period all crops did well and made the usual advancement; all grain harvesting being finished by that time except in the late valleys.

Heavy showers now delayed work, but were of great benefit to corn and potatoes. Considerable hay was spoiled and some grain destroyed or damaged. Corn cutting now began. Unfavorable weather followed for the next two weeks, being cold and wet, with frosts succeeding the storms. Beginning with the 18th the weather became seasonable, and the late growing vegetables began to do well.

The cold week at the close of September and first of October finished the crop season with a snowstorm on October 1. Fall work was delayed by the storm, but considerable of a start had already been made in plowing and sowing fall grain. As a rule, corn was saved from frost, though in some cases it had to be cut before fairly ripe. Potatoes, where dug, have yielded well, and the crop will probably be abundant.

The season has been favorable to most crops, but especially so to grain. This is doubtless owing to the fact that in the wheat sections there were no prolonged droughts, and that there were cool spells during stooling and filling times. In Weber county the average of twenty threshings gave a yield of twenty-four bushels of wheat to the acre. Many places went as high as thirty-five bushels. In Juab county the average from twenty threshing places gave a yield of a little over thirty-five bushels to the acre of wheat. Rye and oats gave a good return.

The later crops of hay received considerable damage from the unusual rains; the lucern seed crop was light. The frequent and late frosts in spring prevented the fruit crop from being of quite the average abundance, excepting apples, which have done the best of the large fruits. A large percentage are wormy, and spraying, as enforced by law, does not appear to have accomplished what was hoped for it. Many are of the opinion that it does no good; others have proved that it is efficient where applied properly, in season, and persistently. The weather in May and June was very favorable to strawberries, and a very heavy crop of most excellent quality was gathered, the heaviest yields being in Utah, Weber and Box Elder counties. Recent weather has been favorable to the drying of late fruit, and a larger amount than usual has been done. Taken altogether, the past crop season in Utah has been one of prevailing pleasant weather and prolific yields.

The following is a general summary of the weather conditions:

Periods of drouth—Last of March to April 14th; April 16th to 28th; May 1st to 15th; August 7th to 14th.

Wet spells—April 14th to 16th; April 28th to 30th; May 21st to 24th; June 7th to 8th; August 31st to September 1st; September 7th to 11th.

Normal weather—July 10th to August 21st; September 18th to 25th.

Cool spells—Up to April 24th; April 29th to May 7th; May 15th to 19th; June 7th to 15th; 19th to 28th; September 1st to 8th; 18th to 18th; September 25th to October 2nd.

Warm spells—May 7th to 14th; May

21st to June 6th; July 1st to 10th; August 21st to 31st.

Very respectfully submitted,
GEORGE N. SALISBURY,
Observer Weather Bureau, Director
Utah Weather and Crop Service.

GENERAL M'COOK.

On the 8th of November next Major General Howard will, by the age of limitation, retire from the United States army. That fact has caused a large petition, signed by the leading citizens of Utah, to be forwarded to the President, asking for the promotion to the place made vacant, of Brigadier General McCook, now residing at Denver.

The appeal for promotion is a strong one, and Federal and ex-Federal officials, municipal authorities, business men and men prominent in religious and political circles, without regard to party or creed have alike asked for it. That General McCook has eastern friends at work in his behalf also is evidenced by the following article which appeared in Brooklyn *Times* a few days ago:

"Early next month General Howard is placed upon the retired list of the army by action of the law of compulsory retirement for age. This leaves a vacancy in the grade of major-general to be filled by the President by selection. This selection might be applied to any officer in the service, but it is practically restricted to the brigadiers and the senior colonels.

"The colonels have reached the height of regimental command by the law of seniority and hope for promotion before attaining the age limit. But the six brigadiers represent the results of the principle of selection as applied to the colonels. It is, therefore, altogether reasonable to expect the President to limit his selection of the major-general to the list of six brigadiers who have been picked from the regimental commands heretofore on good and sufficient grounds. Of the brigadiers Alexander McD. McCook entered the army in 1852, eight years ahead of General Merritt, the next in point of seniority of service. On this account he has a fair right to expect the promotion.

"But this one of the fighting McCooks has a better claim on the country and on the President than the mere dragging along of a chain of lengthening years. One does not need to delve into the voluminous records of the rebellion to remember that he was first and foremost a fighter, a shrewd and brave man of war. His career has been one of activity in all his grades of command, a fierce and successful career during the years of armed conflict. When the war broke out he was a lieutenant of the First regiment of Ohio Volunteers, showing himself foremost to respond to President Lincoln's call upon his state to defend the nation. Promotion followed, both in the volunteers and in the regular establishment, he was made a captain in his old regiment and brevetted up to the grade of major-general, he was made major-general of the volunteer army as early as 1862. His brevets record conspicuous bravery on the fields of Bull Run, Nashville, Shiloh and Perryville. On the recon-