

This great valley, over 125 miles long, is called the Sanpete on the north and the Sevier on the south. It is lowest in the middle where the southward flowing San Pitch and the northward flowing Sevier rivers unite, and breaking through the Wasatch pass out westward upon the desert in Millard county.

The only arable land in this county lies in the Sevier valley, which in this county is several miles wide and 50 miles long. It is watered chiefly by the Sevier River, but there are many small streams and springs coming from the mountains on either side. The river measured 70 cubic feet per second at Joseph City on July 26, 1889. No other measurements are reported. There were reported 11 canals, aggregating 107.5 miles in length.

The area of the county is 993,280 acres, of which 25,000 acres are under cultivation; all but 7000 acres are watered by the Sevier River. 100,000 acres could be irrigated if there were more water. There are 2634 acres of lucern raised, 11,982 acres of small grain, 710 acres of root crops and vegetables and 178 acres of orchards.

The elevation of the lower part of the valley is about 5,500 feet and the irrigating season is 244 days long; some fruit is raised here.

The upper part of the valley is from 6000 to 7000 feet above the sea, the irrigating season is 122 days long and small grain and hay are the chief products. The soil is sandy and very productive.

There are none of the thinly populated counties that have such possibilities before them as this; for there is enough water to irrigate the whole valley if it is properly stored. The depth of snow in the mountains in winter is about six feet. Six reservoir sites of great capacities are reported in the mountains. All the present water supply is utilized. Deep artesian wells are possible in some parts of the valley.

PIUTE COUNTY.

The cultivated portion of this county lies in or near the heart of the Beaver mountains, south of Sevier County, and at the junction of the coal range with the Wasatch. The valleys are elevated and cold, being 5400 to 7000 feet above the sea. The irrigating season never exceeds 173 days. The duty of water is not more than one cubic foot to 100 acres. The land is irrigated from 20 to 48 hours per annum. The water supply is 217 cubic feet per second, comes from 11 creeks and rivers, and in some localities is not all in use, while in other places 400 acres were lost and many more injured by lack of water. There are 31 canals.

Ten reservoir sites are reported, of such capacity as to irrigate 15,000 additional acres more land than there is to cultivate. The average depth of snow in the mountains is 4 to 5 feet.

The area of the county is 2,368,000 acres. The cultivated area is 12,135 acres, lying in Sevier, Grass and Rabbit valleys. But little fruit is raised in this county.

GARFIELD COUNTY.

The western part of this county also lies in the heart of the Beaver mountains, and its cultivated valleys are all elevated (5885 to 6273 feet above the sea) and cold, best adapted to hay and grain. The irrigating season lasts 97 days, and the duty of water is slight, the land is irrigated but 25 days during the year. The water supply is not given. There are 34 canals. The area of the county is 2,892,800, of which about 5,000 acres are cultivated.

Four reservoir sites are definitely reported, and many others are mentioned, enough to irrigate several times all the arable land in the county. Some of these sites could be used to help out Kane and Washington counties.

DRY COUNTIES.

The larger part of these counties is arable land, and can never be reclaimed because of being destitute of any water either present or prospective, while the eastern edge of these counties might almost be classed with the moist group.

BOX ELDER COUNTY.

This county lies in the northwest corner of the Territory and is the least arid of them all. The western portion has a few farms and some meagre streams, while that portion next to the lake is susceptible of artesian wells and is quite productive. The mountains in this portion are so low and lose their snow so early that water storage out of the question.

TOOELE COUNTY.

This county lies west of Great Salt Lake and Salt Lake County. It is very large, containing 4,140,800 acres, of which only 6,250 acres are cultivated, and these lie chiefly in one Valley (Tooele). This valley is a broad one, lying between the Oquirrh and Aquil mountains, from which it receives its water in eight small streams aggregating 78½ cubic feet per second. These mountains do not rise high enough to give water all the season. This valley is being greatly developed by artesian wells.

Rush valley is a magnificent one, being the southern extension of Tooele Valley. There are 200,000 acres that could be redeemed here alone, but there is no surface or artesian water to be had. Reservoirs might catch some water.

Skull valley is another large tract lying directly west of the Aquil mountains. This is capable of artesian wells, and has a small supply of surface water. It is undeveloped.

On the western edge of the county near Deep Creek is some cultivated land.

There are 1,000,000 acres of good land that could be redeemed if there were water for it, but by fully developing all resources by storage and otherwise 100,000 acres is an outside limit of the acres that will ever be cultivated in this county with the present rainfall.

The elevation of the valleys is 4400 to 5000 feet above the sea. All kinds of fruit and produce can be raised here that are raised in Salt Lake County. The duty of water

is one cubic foot per second to 80 acres, and the irrigating season runs from 122 to 200 days. Several good reservoir sites are reported. The average depth of snow in the mountains bordering Tooele Valley is three feet. The soil is so gravelly near the mountains that fully one half of the water is lost by seepage before it gets to the fields. Water storage and fluming the canals are the crying needs of this county.

JUAB COUNTY.

This county lies south of Tooele and runs from the Wasatch to the western boundary. The area is 2,457,600 acres and fully one half of it is level land that could be redeemed by water, but outside of artesian wells there is no hope for most of this county. Four thousand acres are reported under cultivation beneath the shadow of Mt. Nebo.

All kinds of fruit and grain are raised here, that the Great Basin produces. The elevation of the valleys is from 5000 to 5500. The average depth of snow in Mt. Nebo is 3 feet; several good reservoir sites are reported. Nearly one-half of the crops were lost this year by lack of water. Water storage and artesian wells are the only hope of this county.

MILLARD COUNTY.

This county lies south of Juab and runs from the Wasatch to the western boundary. This is one of the largest counties in the Territory and has the largest amount of arable land of any, if there were only water for it. The area of the county is 4,492,800 acres, and over one-half of it is good land. Artesian wells are being developed in this county, but generally the flow is so slight that the water is valuable only for drinking.

The settlements lie along the western base of the Wasatch and along the Sevier River. They are from 5000 to 6000 feet above the sea, and produce large quantities of fruit, small grain and lucern hay. The irrigating season runs from 90 to 122 days. There are 13,500 acres reported as under cultivation, 1000 acres were reported as lost and much more as injured by lack of water this year. There are 42 miles of canals reported. The soil is sandy near the mountains and clayey in the Sevier Valley. Water storage is not only an imperative necessity in this county, but it is practicable. Much water runs to waste in the Sevier River, probably triple what is used. There are several good sites along the river where from one to three square miles of water several feet deep could be held back. Back of Scipio a natural lake, now used as a reservoir, could hold five square miles of water of considerable depth. It is said that the Sevier River could be turned into it. There are several good sites in the Wasatch.

BEAVER COUNTY.

This county has an area of 1,689,600 acres, of which one-fourth is good land; 9500 acres are reported under cultivation. This county lies south of Millard, and runs from the Wasatch to the western boundary. The upper valleys are 6000 and the