

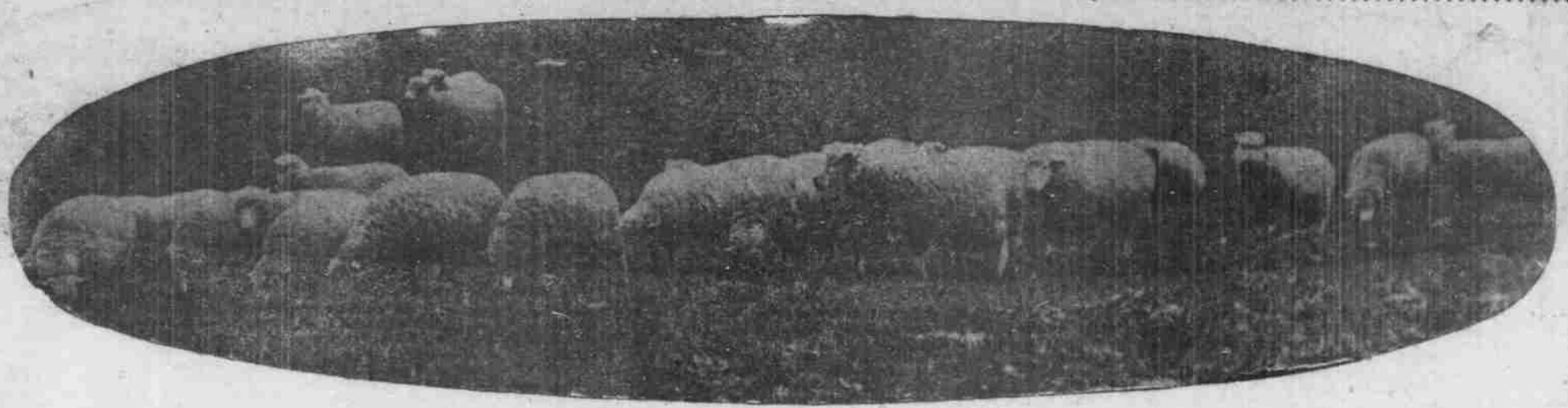
the formation of the country is suited to the construction of large reservoirs.

An article on agriculture would not be complete without a congratulation to the O. R. & N. Co. for its work in reclaiming the lands along its line. In the hope of providing farmers and stockmen with grasses and forage plants that will furnish food under conditions of high rainfall, the company has been conducting experiments at several places along its line for over two years. As a result, there are six varieties of grass which tests have proved will thrive on the sandy soils of the Inland Empire. These are brome grass, bunch grass, blue grama grass, Turkestan alfalfa, Australian salt bush and white sage. These will take the place of the native bunch grass, which has been eaten down and tramped out by cattle, and much country now considered worthless will be reclaimed. Areas wind-swept at all seasons of the year and as hot as a desert in summer, will again be carpeted with green, and under the new conditions stockraising for market will increase and an impetus will be given to dairying. This work has been conducted under the supervision of Colonel R. C. Judson.

The Climate of Oregon.

The climate or weather conditions of a single city or town are often difficult to describe for readers living in an entirely different climate to understand and thoroughly realize the attractiveness of the climate written about. As a rule only the pleasant things are told, the disagreeable being forgotten or passed over. The following brief resume of Oregon's climate is based on the official Government records and reader should thoroughly understand the geographical and physical conditions of the state before a study of the climate is undertaken.

Oregon is in almost the extreme northwestern corner of the United States. The northern portion of the state is as far north as St. Paul, Toronto and Portland, Me. It has a coast line of nearly 400 miles. It extends between 4 degrees of latitude, the 43d and 46th, and between 1 degree of longitude, the 117th and 124th. It has an area of 26,000 square miles, or about 2,500,000 acres. If each acre were



THE FARMS NEAR NORTH YAMHILL, OREGON, ARE NOTED FOR THEIR THOROUGHBRED SHEEP.

—Photo by L. J. Hicks, Portland.

south of the Columbia River are the Calapoosias, connecting the Coast and Cascade Ranges. South of the Calapoosias are numerous mountain ranges, connecting with the two main chains. The Blue Mountains, really spurs of the Cascades, are in the northeastern part of the state. They extend into and form a portion of the mountain chains of Idaho. East of the Cascades and south of the Columbia River Valley is an undulating plateau, having an elevation of from 1500 to 4000 feet. Between the Coast and Coast Ranges the country has an elevation less than 1000 feet in the largest valley, the Willamette, and also in the valley on the south, the Umpqua. South of this latter valley is the Rogue River Valley, with an elevation of from 1000 to 2000 feet. West of the Coast range are many small val-

as a rule, begin in September, but up to the middle of November fair weather is more common than rain. From this time to the middle of March the real rainy season prevails.

Rain falls west of the Cascades and rain or snow east of them. From March the rainfall rapidly decreases until June, when the dry season again prevails. During the rainy season there is considerable fair weather, and it is unusual if outdoor work is suspended for over five consecutive days at a time. The crops of Oregon, the low death rate, the lowest in the United States, the rich, highly colored, perfect and great fruit yields, demonstrate the desirable climate that is to be found in Oregon. Snow falls east of the Cascades in amount from a few inches to several feet, but it does not remain on the ground for any great length of time, owing to the warm southerly winds which almost invariably follow a cold or snow period. These warm winds are known by the name of "chinook winds," and are produced by what is scientifically called dynamic heating. They will cause a rise in temperature of from 20 to 40 degrees, and owing to their dryness, quickly melt the snow and dry the earth. If it were not for these Chinook winds, a large part of the northwestern portion of the United States would be unfit for agricultural purposes. They so influence the climatic conditions that a large portion of the otherwise bleak and barren country is made into an ideal farming and stock country. It is due, in a very great extent, to these chinook winds, that the temperature of this section is as mild as it is, and also it is the reason that this is an ideal stock country. There are no blizzards, no severe snow storms and when snow does fall it remains but a comparatively short time on the ground. Snowfall is always welcome to the stockman, for the balmy breeze soon follows, the snow is melted and green food on the ranges is more plentiful and nutritious than before the snow fell. The rigorous climate of Idaho, Wyoming, Montana and adjoining states is not experienced in Oregon, hence the superior advantages that this state offers to the stockman. The snowfall of winter, east of the Cascades is as welcome to the farmer and miner as to the stockman. The snow falling on the Fall-sown wheat insures the crop for the following year. The snow melting makes water for the miner.

but because in a comparative sense there is none. There is always sufficient precipitation along the coast and over the mountain portions of the state to insure good crops. There never has been a crop failure in any portion of the state, though

for dairying products and timber. In this section grass is green and growing every month of the year, and with improved communications with the markets, great development in dairying will result. The Willamette Valley, is usually spoken

of as the "Garden Spot of the World," and it has well earned its name. The valley contains about 6,000,000 acres of land and in it there can be grown and successfully produced anything that will grow in the temperate zone. The soil of

and bottom land, with running water and right on the railroad, is offered at \$5 an acre. Homeseekers can find anything they want—free homesteads, rough ranches, sheep camps or well-improved farms with perfect title. Along and near the Columbia River Morrow County has a stretch of land on which the rainfall is not very heavy. With water upon it in sufficient quantities this land will produce abundantly. Without water it furnishes free range to considerable stock. These lands are open to homestead or desert land entry, and some day irrigation will make them bloom and blossom.

Hoppper is this season handling 100,000 bushels of wheat, of which the Hoppper mill has bought 30,000 bushels. This wheat is mostly raised in the Eight-Mile and Hardman country, west of Hoppper. The main farming belt of Morrow lies clear across the county to the north of Hoppper. The county this year has produced 500,000 bushels of wheat. The land farmed is all plateau or slope, entirely free from timber and undergrowth, making farming easier than in many other localities.

The Hoppper Hills country is a fine one for grazing. Nutritious bunchgrass grows luxuriantly and on it all kinds of livestock feed and fatten, especially the sheep. Here is the home of the sheep. He thrives. There are 300,000 sheep in Morrow County. Last Spring 55,000 were sold and taken east, and this Fall 30,000 changed hands locally and remain in the county. In Morrow County last Spring ewe bands raised an increase of 100 per cent average, as it was a very favorable season. Other seasons they

VALUE OF OREGON'S AGRICULTURAL PRODUCTS IN 1900.

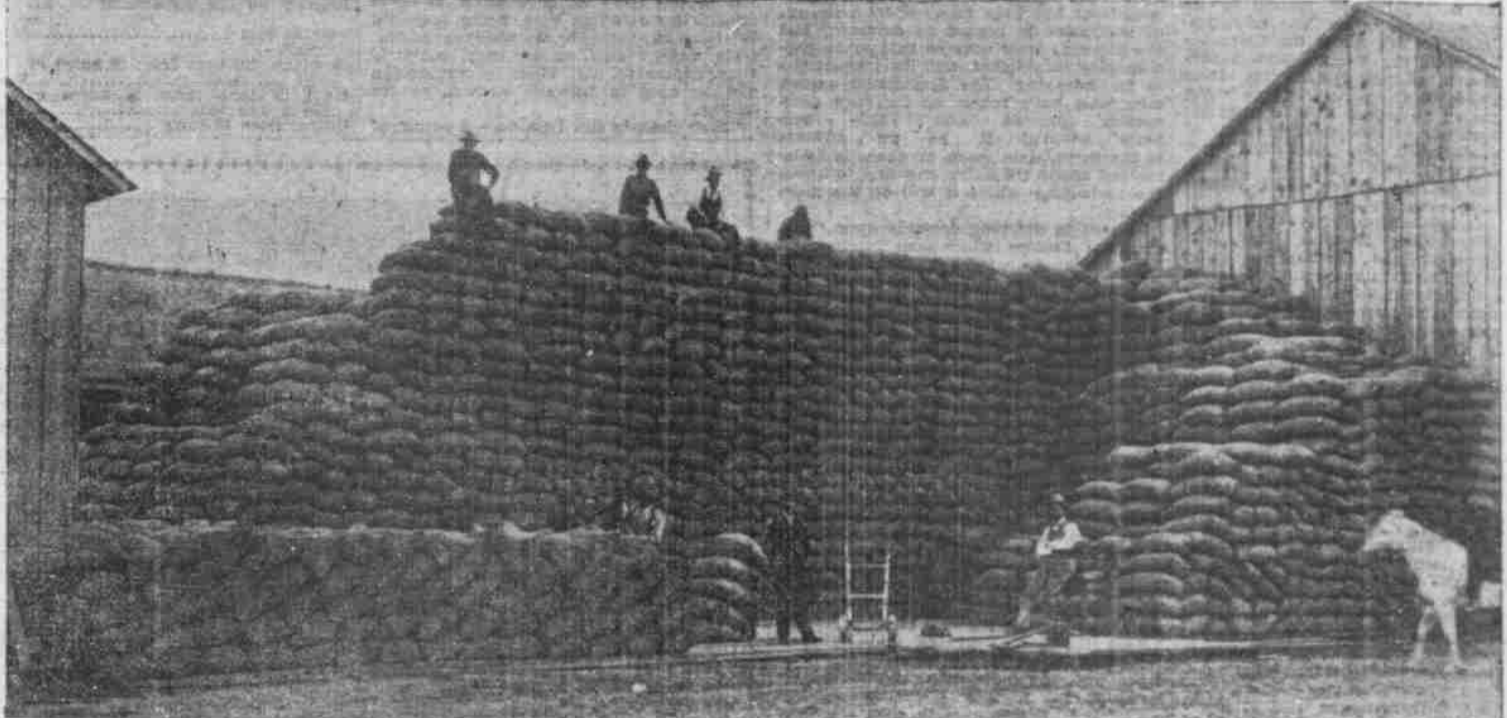
Product	Quantity	Value
Wheat, bushels	16,000,000	\$ 3,200,000
Corn, bushels	22,747	141,774
Oats, bushels	3,383,927	1,381,522
Hay, tons	1,528,316	10,944,212
Potatoes, bushels	1,845,289	184,529
Wool, pounds	20,000,000	2,000,000
Hops, pounds	15,000,000	1,140,000
Bacon and lard, cwt.	1,100,000	220,000
Mohair, pounds	187,500	61,500
Vegetables, hemp, etc.		500,000
Total		\$27,188,024

capable of supporting one-tenth the population that some European countries do, the population would be several millions. As it is, the population is less than half a million. The state has an area equal to the combined area of the six New England States and New York included. The immensity of the state in area, should be kept in mind.

Physical Features.

The state possesses many of the physical features found in Pennsylvania. It has three well-defined ranges of mountains, the most western being the Coast Range, the second the Cascade Range, and the third the Blue Mountains. The two former extend from north to south, the latter from southwest to northeast. The

Coast Range is a continuation of the Olympic Mountains of Washington. The range is from 15 to 50 miles from the ocean, with a height of from 1000 to 3000 feet. East of the Coast Range from 50 to 100 miles is the Cascade Range. It has an elevation of from 1000 feet upward, obtaining its maximum height on Mount Hood, 11,235 feet high. About 165 miles



WHEAT AT MORO AWAITING SHIPMENT TO PORTLAND FOR EXPORT TO EUROPE.

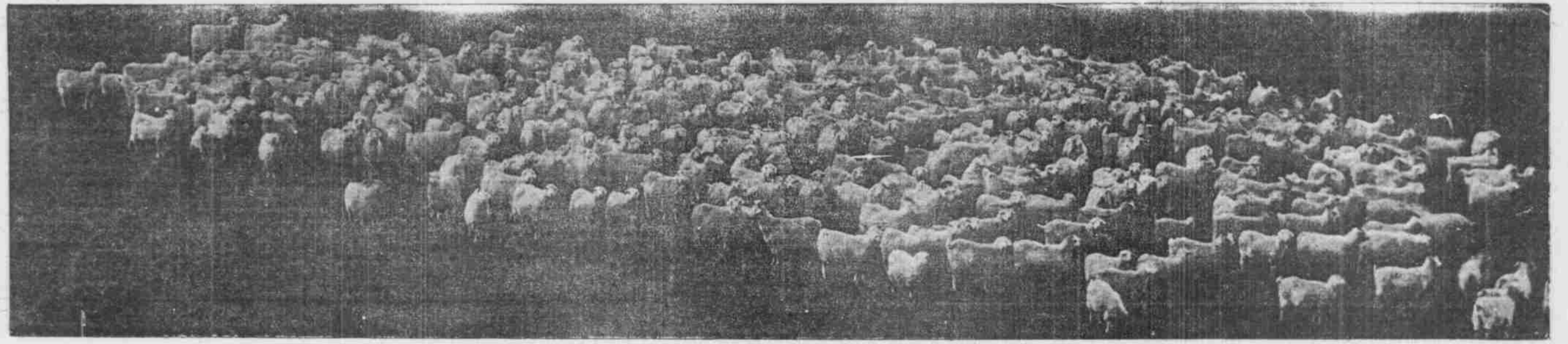
—Photo by W. A. Raymond, Moro, Or.

in the semi-arid counties, especially in portions of Wasco, Sherman, Gilliam, Morrow and Umatilla Counties, there have been years when the yield of grain has been materially reduced, owing to insufficient moisture. In favorable seasons

of as the "Garden Spot of the World," and it has well earned its name. The valley contains about 6,000,000 acres of land and in it there can be grown and successfully produced anything that will grow in the temperate zone. The soil of

in their way to cause prolific production. There is an absence of injurious frosts from May 1 to October 1. Frosts rarely do injury to fruit bloom in Spring; in fact, more frost would be beneficial, for it would save the expense made necessary

will average 80 per cent, which shows that this is the home of the sheep. Hoppper is a great wool center. At present the warehouses contain 2,500,000 pounds, which growers are holding for an advance. Well up toward a million



A HERD OF ANGORA GOATS. WILLAMETTE VALLEY FARMERS HAVE INVESTED THOUSANDS OF DOLLARS IN GOATS IN THE PAST FEW YEARS.

—Photo by L. J. Hicks, Portland.

Coast Range is a continuation of the Olympic Mountains of Washington. The range is from 15 to 50 miles from the ocean, with a height of from 1000 to 3000 feet. East of the Coast Range from 50 to 100 miles is the Cascade Range. It has an elevation of from 1000 feet upward, obtaining its maximum height on Mount Hood, 11,235 feet high. About 165 miles

30 inches, increasing from the California line northward. East of the Cascades the rainfall amounts to from 3 to 24 inches, the average for the section being about 14 inches. The year is divided into two seasons, Summer and Winter. Summer begins about June 1 and extends to September 1. During this time little, or no rain falls. The first rains of Winter,

for the moisture occurring during the period when little evaporation takes place, the snow, when melted, goes into the soil, there conserving all the moisture so necessary to the crops of the next season. The precipitation is, as a rule, well distributed throughout the various months of the year. The dry season is not so called because there is absolutely no rain,

wheat yields of from 40 to 60 bushels per acre are not uncommon, and whole sections will yield from 22 to 40 bushels per acre. In unfavorable years, the yield is reduced to from 8 to 20 bushels per acre. This latter yield is a good one for many states, but a poor one for Oregon. Rainfall is copious along the coast, but that condition makes it an ideal region

the valley, as in the greater portion of this little west of the Cascades, is a vegetable mould, produced by the decaying vegetation of past ages. The Umpqua and Rogue River Valleys, on the south, are peculiarly fruit sections, though grain, grasses and other products grow to perfection. Timber is plentiful in all sections, from the summit of the Cascades westward to tide water.

The great valleys east of the Cascades are the Columbia River Valley, the Valley of the Snake, Grand Ronde Valley, Powder River, Deschutes, John Day, Hood River and numerous smaller valleys found along the many streams and rivers. These valleys are ideal in richness, only requiring sufficient water to make them bloom as the rose. The great development in the immediate future will be in the country east of the Cascades. Systems of irrigation are being extended, and water rights, with a sure supply of water can soon be given to many thousands acres of land, which heretofore has produced nothing but sagebrush. Grain will grow and yield good crops with an annual precipitation of from 12 inches and upward, but fruit, hay, hops and a thousand and one other products require more moisture, and this is gradually being supplied by means of irrigation. The various rivers, draining the country east of the Cascades contain a vast supply of water, and a large percentage of this water, which now flows to the ocean, can be utilized for irrigation with the expenditure of only a small sum of money, a small sum when compared with the benefits that will accrue.

to hand prune the fruit from the trees.

HOMES IN MORROW COUNTY.

Low Priced Lands Offered to the Settler.

Other things being equal, the homeseeker can in no other part of the world find lower-priced lands than in Morrow County.

pounds of wool is brought to Hoppper every year from adjacent counties on the south, and here the dealers come to inspect, buy and ship it.

Coal, gold and silver have been found in the southern part of Morrow County, but no practical development work has as yet been done. A steam or electric line built along Upper Willow Creek would tap a large body of fine timber. At present Hoppper and Morrow County depends



GENERAL VIEW OF A WILLAMETTE VALLEY STOCK FARM. THIS IS ONE OF THE FINEST FARMS ON THE PACIFIC COAST.

—Photo by L. J. Hicks, Portland.

The temperature of Oregon is mild. The country west of the Cascades seldom has zero temperature, and even 20 degrees above zero is rare. Winter succeeds Winter when 30 degrees below the freezing point is extreme cold. In the City of Portland few years occur in which during 200 hours of the year the temperature reaches or falls below the freezing point. East of the Cascades zero temperatures occur every Winter, with few exceptions. The periods of cold are short, lasting rarely over 10 days, and usually they are followed by the balmy chinook, changing Winter in a few hours to delightful Spring. The Summers are not warm. The temperature will rise to 90 degrees every year west of the Cascades and to 100 degrees east of them, but these warm periods are not oppressive. With the warmth of Summer the air becomes dry; the warmer it is the smaller the percentage of relative humidity in the air. The dryness of the air allows the moisture on the body to evaporate, which produces a cooling of the body and prevents the debilitating effects of the heat. The proximity of the ocean produces the well-known land and sea breeze, so that

THOROUGHBRED SHROPSHIRE SHEEP IN THE WILLAMETTE VALLEY.

ty. Semi-arid lands may be bought with perfect title as low as 50 cents an acre. In the farming and stockraising region unimproved and improved places may be bought at from \$2.50 to \$7 an acre. A place of 1000 acres, embracing both bench

for fuel on wagon hauling for 18 miles, from the Blue Mountains, or on wood brought by rail from the Cascade Mountains, 130 miles away.

J. W. REDINGTON.
Hoppper.

—Photo by L. J. Hicks, Portland.

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