## Dry Farming Methods Will Change Sage-brush Wastes Into Grain Fields

Professor H. D. Scudder, of Oregon Agricultural College. FTER many days of hard travel," writes an early ploneer, "we rode up from the pleasant

valley of the John Day River over a low range of mountains into a great valley of unknown extent." "Of unknown extent"-to most of us a vast inland sea of rolling sand and stricken sage brush, from which come faint rumors of cattle, or sheep, of fence lines, of road grants, and now at last of railroad clamor. To the dust-laden, stage-wearled traveler, who has swayed and clung and jolted and through a labored passage to this isolated world, comes a tremendous impression of unexpected distances, limitless area, unending horizons, from which blow the keen sweet airs that tempted explorers of old on into the unknown. Day by day may one glide over the rich, bluck bottom lands, unduints over the rolling uplands, labor over the broken lava beds, cross the spreading alkali flats and shallow lakes only to come upon still another world of twisted sage brush, far reaching from herizon to herizon. A few scattered cattle, a few lonely ranch-houses, a few rudely flooded lowlands, a handful of sturdy ploneers, constitute civilization in this vast empire of the fu-

And what is the future of Central Oregon? Here lies an area of approximately 20,000,000 acres of rolling hills and fertile valleys. New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New Jersey and Delaware combined, might be set down in this huge territory and yet leave uncovered miles around the edges. A good from her reckoning, a vast resource, untouched, unbouched. Ten million acres of tillable land-800,000 acres of trriwable land-2,000,000 acres of dry farming land-yet little more than 200,000 es, or only about one-twentieth of this immense body of good agricultural land, has ever been farmed. In other words, this vast domain contains more good farming land than is now cultivated in all the rest of Oregon east of the Cascades, yet but an inconsiderable fraction of it has ever felt the plow. To say, then, that the production of Central Oregon may be increased one hundred fold is but to name the result of the first step in its progress. Leaving aside its great wealth in minerals forests and water-power, let us consider only its greatest and most permanent resource-its agriculture.

'culture will be Central Oregon forever largely confined to the production of grain, hay and livestock-another empire of wheat and alfalfa and fat stock added to Oregon's ever-growclimate is found here for the successtul development of this triumvirate

bringing a sheep and horses that later winter and in its most valuable form-fat stock. fatten on the rich hay. Nor hay alone, grown at these higher elevations will find the richest markets. With the al-



CUP AWARDED CROOK COUNTY BY CAMES THILL FOR BEST EXMIST AT INTERNATIONAL DRY TARMING CONGRESS, BILLINGS

market-certainly so among Oregon livestock.

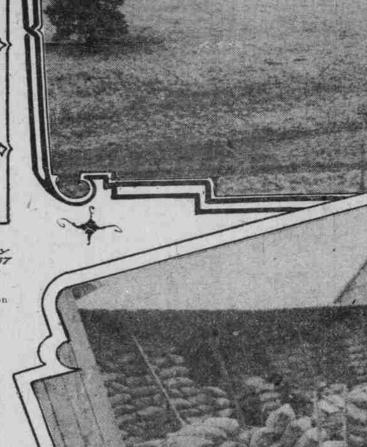
After all, however, the agricultural success of Central Oregon depends more upon the development of its dry-larming possibilities than upon irrigation With an average annual rainfall of from 10 to 15 inches, and a fertile brown alluvial sandy loam soil covering almost three times the area devoted ered miles around the edges. A good to dry farming in the wheat belt along one-third of Oregon here, all but lost the Columbia, the importance of this phase of agriculture may easily be comprehended. Here brains must take the place of water. Selected seed, thorough tillage and diversified production. all three combined, are the potent factors which will work the transformation from black sagebrush to wheat fields. Dry farming conditions here are comparable with those of the Columbia River basin, or of Montana. or of Southern Idaho. Successful production of crops of the highest quality has already long been carried on, on a limited scale, in practically every part of this dry-farming area. Wheat, oats. barley, emmer, alfalfa and field peas are here the dry farmer's major crops.

The hardy, drought resistant, highgrade milling wheats. Turkey red and Durum, are believed the eventual leaders for this territory. That the wheat seed as well us the alfalfa, peas, oats and other seed used, be Northern grown, and from regions of equal or greater elevation, is of the greatest importance. Montana-grown ing domain. Every quality of soil and seed is proving especially well adapted to Central Oregon conditions.

As for alfalfa and field peas it must that will lead a prosperous agriculture not be considered that these are profitable down the centuries.

Where now the Winter overflow as well as every other dry farming seconly under irrigation. Eastern Oregon, luxuriant crop of wild hey, organized the contrary. Grown for hay or hog pasture, they frequently outclass wheat on them over many times their present the ledger, while grown in rows they the ledger, while grown in rows they the ledger. To these it offerstioned the underly-must not only understand the contrary. n, has many notable demonstrations to flooding, ditch the land to leach the yield a superior and most valuable seed alkali and plow and seed the rich sit crop. In addition to this, through their loam to alfalfa—the transformer. Nature has already inoculated the soil for this crop and surrounded the valleys with millions of acres of graxing land with millions of acres of graxing land superior and most valuable seed why then does the present population and agriculture of this huge area lag so far behind? Where are the wheat and agriculture of this huge area lag so far behind? Where are the wheat and affaifa fields and the fat stock? Where with millions of acres of graxing land upon which to grow the cattle and also to send part of his grain to market

In thorough tillage methods the Central Oregon farmer may profit by the hard-earned experiences of dry farmers on every side of him. Fall plowing or Fall discing; immediate harrowing and packvirile alfalfa seed tral Oregon farmer may profit by the igher elevations will hard-carned experiences of dry farmers on falfa, on the lewlands will come the discing; immediate harrowing and packfattening field pess, and in them both ing following Spring plowing; frequent the hog-perhaps the greatest money- surface tillage through the dry season to farmer to transform it maker the American farmer sends to maintain a soil mulch and keep out prosperous production.

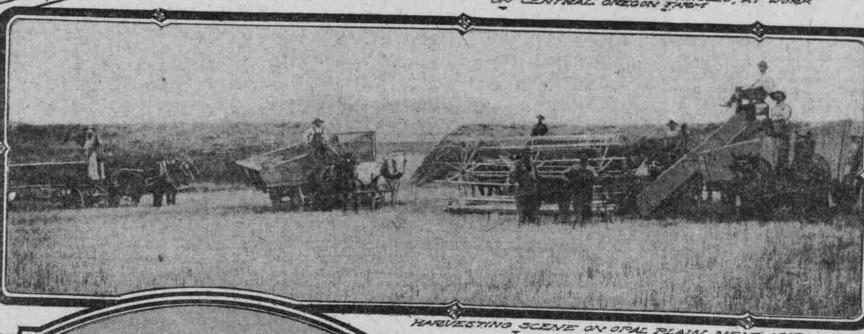




WHEAT FRONT CENTRAL, OFFICAN STORED AT RALLEGAD STATION AFTER LONG HAUL BY TEAT

weeds; these are a few of the fundamental practices for the conservation of moisture, upon which the Central Oregon farmer will build his success. Nor must it be forgotten that the quality of the farming done is of far more importance in bringing about a permanent success, than is the quantity of land covered. It may well be said, too, that dry farming requires the brainlest and most courageous class of farmers to be found in all the field of agriculture. The dry farmer of Central Oregon, to be entirely successful must not only understand the underly-

tion come about? For nearly half a century the answer has been vainly pro-claimed, unceasingly advertised. There is large a body of land lying idle, waiting for a railroad and the hand of the dry farmer to transform it from a desert to



## DESCHUTES VALLEY HAS WON FIRST HONORS BY EXHIBITING ITS PRODUCTS

Possibilities of Soil Were Shown Recently by Outcome of Billings Dry Farming Congress, Where Grand Prize Offered for Grains and Grasses by James J. Hill Was Captured.

Princville, the county seat, is displayed a handsome silver cupthe grand prize offered by James J. Hill to the district of Oregon that produced the best exhibit at the Billings Dry Farming Congress of grains and grasses grown by dry farming methods.

This grand prize, with several minor trophies and cash prizes, was wen by an exhibit of products grown in the Deschutes Valley in localities 50 to 100 miles from any railroad and in a country where the producers must depend on home consumption for disposal of their crops.

It is said that for a short time during the awarding of the prizes at the Billings congress, the Deschutes Valley exhibit stood a good chance of securing the grand prize offered for the best exhibit from any state. The Colorado exhibit was the chief competitor of the Deschutes and decision for a time wavered between the Colorado, however, is older in the dry farming business than Oregon and finally secured the prize;

In several parts of Oregon scientific dry farming methods have been applied and proven to be a successful means of producing profitable crops in years when farming under the old methods resulted been the more progressive farmer who has adopted the more modern methods. the great majority being slow to cast autdo the ways of their fathers. so it has been in the Deschutes Valley and in all Central Oregon. There is found the farmer who tills his land with care

N THE Courthouse of Crook County at the farmer who says his grandfather's other tilled by dry farming methods

methods are good enough for him. proximately 150,000 acres were sown to as the dry plot was involved was concalities in the district that produced that the trrigated land received too m ten bushels or less to the acre, 35 bushof wheat to the acre were produced lands in new districts. last year, and the year was a day one, too. The larger yields were on the farms of those who tilled the soil intelligently and followed to a greater or less degree the scientific methods advocated by experts in dry farming. In the same district is a class of farmers known locally In the years between plowing the grain is rotation is followed. sown after the stubble has simply been other climatic conditions are favorable, the "squaw farmer" gets a fair crop, but in Central Oregon wet seasons are squaw farmer, as a rule, is cursing the country.

in failures. But in such localities it has ing has been shown to be a most suc- land would grow good grain crops, but is exhibited samples of wheat in the produced 40 bushels of wheat to the acre. line. In the vicinity of Bend experiments,

Modern dry farming tools were secured In the Madras country last year ap- from the East and the experiment so far wheat and produced an average of 10 ducted scientifically. The dry plot probushels to the acre. Yet on some farms duced the best crops of the two, but in the Madras district, where soil and for comparative purposes the value of rainfall were not dissimilar from other the experiment was lessened by the fact water-a common mistake on irrigated

Central Oregon, outside of the irrigated districts, as a whole may be said to be a dry farming country. But for dry farming under scientific methods the yearly rainfall is ample. The average yearly rainfall is between ten and inches, and with such a rainfall dry is "squaw farmers." The squaw farmer farming experts assert that a profitable plows his land every three or four years. crop can be raised every year if a proper

The great district known as the "High If it is a wet year and the Plains," to which there is now a rush of number of years at least, on dry forming, The dry plains consist of absolutely raw not numerous enough to make the land on which attempts to grow crops of "squaw farmer" wealthy and while the any character have been confined to a more progressive farmer is prospering very few isolated cases. It is told that one man who took up a homestead there before the railroad development started In the vicinity of Prineville dry farm- the present rush demonstrated that the cessful method of tilling the bench lands. this man had a penchant for horse rus-In the First National Bank of Princville tling and was compelled to leave the country just about the time he was getstraw raised on dry land near by that ting well established in the farming

the farmer who tills his land with care and by methods that have brought prosperity to the dry farms of Kansas, Colorado and Montana, and there also is found one of which was irrigated and the company, who, in the natural course of

events, had quite a number of fruit tress however, the new methods were taken eft on his hands. These trees were up and the results gained in every inleft on his hands. planted near the town a few years ago stance were so satisfactory that the on unirrigated land and the orchard, although yet too young to bear fruit, covers though yet too young to bear fruit, covers up farms in Central Oregon are the acres and bears every indication of being thrifty. Many of the farmers have planted home orchards and there are

merous places where apple trees are

It is probable that the demonstration It is probable that the demonstration trains sent out by the railroads have done more to spread throughout Oreson the methods of dry farming than all other influences put together. The leading crop experts of the state, including members of the faculty of the Agricultural College, accompany these trains and address the informal meettrains and address the informal meetings held at every station visited. At first results came slowly, the farmers had being prempt to put to practical use the suggestions made. Gradually, the most practicable course.

bearing successfully without irrigation.

more progressive agriculturists who will use the most modern methods in developing the new land. It is expected that this class will continue to predominate as the country is settled up. The development of the country will be a set of the country w

Construction Company has the contract for grading the extension from Natron southward.

Natron is located in a picturesque spot on the bank of the Willamette River, at the foot of a chain of rolling hills, which run eastward to the Three sisters of the Cascade Range. The country east is a continuous chain of hills covered from top to bottom with Oregon fir timber; formerly one of the best fir belts in Oregon; while a little to the south of east, the hills are broken, forming a crocked and roundabout en, forming a crocked and roundabout canyon, through which the waters of the middle fork of the Willametts flow and which is the general course of the Natron extension.

cific terminus.

Natron extension.

To the south, across the Willamette River for several miles is a rolling agricultural section, known as the Pleasant Hill country, which was the first settlement made in Lanc County. To the southwest extends the Willamette Valley which is dealed by the country. Valley, which is drained by the Coast fork of the Willamette, while to the west lie Springfield and Eugene and that section of the Willamette Valley extending westward to the Coast Mountains

days of September carload after carload of machinery, horses, mules, pro-

visions and general construction equipment rolled into the little Southern Pa-

The Natron extension will meet the

rine that is building northward from

Klamath Lake, and work is progres-

sing with equal energy at both ends

of the line. Thirty-five miles are un-

der contract at each end, leaving a gap between of about 80 miles. The Utah Construction Company has the contract

a railroad station and about three dwelling-houses. It has become a busy center for construction work. On the very arrival of the Utah Construction Company every available man, horse and mule were pressed into service, and within two weeks houses by the dozens and scores were scattered up and down the right of way, and in Natron. Within a few weeks nearly 1000 men were other delication the job. Horses and mules were brought in, a few carloads at a time, acres, and until now, about 1000 are at work. Mearly every foot of ground around for canning.

THREE months agos the Natron ex-tension of the Southern Pacific was listed among the projected lines in Oregon, but during the later Natron is covered with tools and machinery. There are traction engines, large and small, locomotives, narrow-gauge and wide-gauge, wagons by the hundred, scrapers, both wheel and drag, drilling machines, several huge steam shovels and scores of dump wagons and dump cars.

NATRON LINE UNDER WAY

Nearly 1000 Men Are at Work on 150-Mile Extension of Southern

Pacific From Lane County to Klamath.

shovels and scores of dump wagons and dump cars.

Subcontractors have the work in charge with the exception of a distance of 13,590 feet between stations 700 and 835, and there are about 25 camps along the line. A place of interest is the general supply house, where provisions for laborers and teams are atored for distribution among the camps. Flour, sugar and potatoes have been brought in by the ton: lard, canned fruit and condensed milk by the carload and hay and grain by the trainload. The construction company trainload. The construction company has established its headquarters at Na-

## LandAlong Lake Is Sheltered

Winter Mountains Protect 25-Mile Strip of Ideal Fruit Acreage.

U NDER the shelter of the Winter Ridge of Mountains, on the west shore of Summer Lake, is one of the most prosperous communities of interior Oregon. The Winter Ridge, or rior Oregon. The Winter Ridge, or Rim Rocky Mountains, as the range is also known, rises abruptly about two miles back from the west shore of the Valley, which is drained by the Coast fork of the Willamette, while to the west lie Springfield and Eugene and that section of the Willamette Valley extending westward to the Coast Mountains.

Natron three months ago consisted of a railroad station and about three dwelling-houses. It has become a busy center for construction work. On the very arrival of the Utah Construction Company every available man, horse and mule were pressed into service, and within two weeks houses by the dozens and scores were scattered up and down the right of way, and in Natron. Within a few weeks nearly 1000 men were on the job. Horses and mules were brought in, a few carloads at a time, until now, about 1000 are at work. Nearly every foot of ground around