The Madras Pioneer

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THURSDAY · September 20, 1906

The Eastern Oregon Land Company will sow Turkey Red wheat upon some of its lands in Sherman county, this season, and they are having 400 sacks shipped in for that purpose, and to permit other farmers to give it a trial. The Turkey Red wheat is said to be the greatest drouth resistant known, and it has proved the salvation of the semi-arid regions of Western Kansas. It is a strictly Winter wheat, and would not freeze in the most severe winter weather we have; in fact, it stands the Winters of Iowa and Kansas, where it is not unusual for the ground to freeeze to a depth of three feet. The combination of a good drouth resistant and a hardy winter wheat would make it an ideal wheat for this section.

LIGHT AHEAD.

Farmers of this locality are turning their attention to more careful methods of farming, from which apparently insignificant fact may be gleaned much hope for the future of this country. During the past two years we have had such dismal failures of our crops, that those thinking farmers who have observed the conditions under which these failures resulted have decided to abandon the old shiftless, happy-go-lucky methods that have characterized the farming throughout this section. And it is in this manner that out of despair shall come hope, and out of complete failure will come success.

Most of our failures in this section may be traced to the slip-shod methods of cultivation that have been followed. In this and in all semi-arid regions the conserving of the soil moisture is of paramount importance, and a saving of the moisture is only accomplished by proper methods of cultivation. Failure to cultivate means a waste of moisture, barely sufficient to begin with, leaving the crops with insufficient moisture to mature them, when the long spells of drouth and the hot winds of early summer come.

Another cause of failure is in the selection of seed grain. In this section many farmers have year after year planted the same old mixed seed of various kinds, shriveled and perhaps harvested from a field that yielded not to exceed half a dozen bushels to the acre. And from this seed they expect to secure a good crop!

This year there is much cause for congratulations in that many of our farmers are coming out of this "rut" into which the tendency to take things easy had drawn them. They are securing excellent seed grain which combines the characteristics which recommend it for this country; they are pursuing more improved methods of cultivation in the hope that they may conserve enough of our rainfall in the soil to tide them over the long dry spells of early summer; and for their industry they have a right to expect abundant reward.

Dry Farming---The Hope of the West

A Method of Producing Bountiful Crops, Without Irrigation, In Semi-arid Regions.

The following article, by John L. Cowan, was published in the July number of "Century", and is republished here with the consent of the publishers, The Century Company. It contains much interesting and useful information about the Campbell methods of dry farming, most entertainingly told.

PART II.

Water moves in the soil by capillary attraction—up as readily as down. To prevent it from rising to the surface after it has been stored beneath is the primary object of the loose soil mulch, composing the top two inches of soil. This answers the purpose of a lid on the natural reservoir, preventing the moisture from rising to the surface and thus evaporating in the hot, dry atmosphere. At the same time, this soil mulch forms an open, porous bed upon which the rain and snows fall, permitting the moisture to percolate readily through into the compacted ground beneath. Special agricultural implements have been designed and brought into use for packing the subsoil and for stirring and pulverizing the surface, but a detailed description of these would be aside from the purpose of this article.

After the land has been deeply plowed, the under-soil packed by the sub-soil packer, and the surface harrowed and pulverized, a full year should elapse before the first crop is planted, in order to obtain the best results. This season is needed for the collection and storing of water. In the Winter and early Spring, heavy snows cover the ground. When these melt in the Spring, instead of draining off the surface or evaporating, as they have done for ages, they sink into the reservoir prepared for their reception. As soon as the surface is dry enough, the ground is harrowed over again and again, to place the soil mulch in proper condition. This is repeated after each rain until seeding time arrives. The seed is then drilled in just deep enough to place it below the soil mulch in the moist, compacted soil beneath, causing germination in the quickest possible time.

After planting, the dry farmer does not trust to luck and Providence to do the rest, and blame it all on the weather if the final result is failure; but he continues to harrow over the ground after each rainfall until the growing crop is too far advanced to permit of this without causing its destruction. By that time it covers the ground fairly well, protecting it to some extent from the sun and hot winds, and making the constant loosening of the soil mulch less imperative.

No sooner is the crop harvested than preparation begins for the next seeding. The plow follows close behind the harvester, cutting a furrow seven inches deep. Behind the plow follows the sub-soil packer, similar in shape to a disk harrow, but having ten sharp wheels that cut deeply into the plowed ground and press the soil firmly together. The packer is drawn very slowly, but all ground plowed is packed and harrowed before work is stopped for dinner or the night's rest. No matter how long a time must elapse before the planting of the next crop, the ground is harrowed over after every rain, but never when it is dry. Through Winter and Summer this persistent and untiring stirring of the soil mulch is continued, whether anything be planted or not. The dry farmer, therefore, knows no season of rest or idleness. He knows that eternal diligence is the price he must pay for good crops. He not only believes, but practices "the gospel of work", and richly deserves the ample rewards that are surely his.

It has been thoroughly demonstrated that rational dry farming methods as above outlined, will produce from three to five times the results of ordinary farming methods on the same lands. In the sub-humid belt between the ninety-seventh and the one-hundredth meridians, the additional labor and expense amount to about twenty-five per cent. West of the one-hundredth meridian, twice the usual amount of labor is necessary. This is partly offset by a saving of more than two-thirds of the seed, and is richly compensated for by an increase in the harvest amounting to from 200 to 400 per cent. The ordinary farmer on the plains sows forty quarts of wheat to the acre, and threshes anywhere from nothing at all up to twenty bushels. The average crop grown in Kansas for the last fourteen years has been thirteen bushels to the acre, and fifteen bushels to the acre was the highest average for the state in any year in that time. The farmers who follow the Campbell system sow only twelve quarts to the acre, and never fail to harvest from thirty-five to fifty-six bushels. Last year the third largest crop ever produced in Kansas was cut. It averaged twelve and three-quarter bushels, aggregating 75,576,867 bushels grown upon 5,854,047 acres of land. The average crop grown in the state by users of dry farming methods was thirty-seven bushels to the acre. If this average had been maintained throughout the state, the Kansas crop for 1905 would have amounted to 216,599,739 bushels.

The average annual precipitation between the foothills of the Rocky Mountains and the Kansas-Nebraska line is 14.93 inches. In this arid region, in which long experience has proved ordinary agricultural methods to be unprofitable, there is a margin of almost three inches over the requirements for the successful following of dry-farming methods; and Julesburg, Limon, and many other flourishing agricultural communities are living witnesses of the efficacy of the Campbell system. While an annual rainfall of twelve inches is sufficient to bring to maturity any ordinary farm crop, there are many special crops that can be grown with a good margin of profit with an annual rainfall of less than ten inches. Experiments are now in progress for the development of varieties of wheat, alfalfa, and corn possessing greater drought-resistant qualities than any now known. Enough progress has been made along this line to prove the entire practicability of developing such varieties, and there are those who do not hesitate to say that the time is not far in the future when it will be possible to grow crops of economic importance wherever natural vegetation of any kind flourishes.

While the methods used in dry farming were evolved from the experience of private persons, without aid or encouragement from official sources, yet within the last few years the Department of Agriculture has made a contribution of inestimable importance to the dry farming movement by making a systematic and successful search for crop plants particularly adapted to cultivation in arid and semi-arid regions. In this work and in the general investigation of improved methods of farming in Arid America, it has been, and is now being, ably seconded by the various state agricultural schools throughout the West. While practical dry farmers have proved by their own experience on hundreds of different farms that all the ordinary cereals, forage plants, fruits, berries and vegetables will flourish and richly reward the agriculturist in the arid belt, if given sufficient care and attention, the Department of Agriculture and the various state agricultural schools have shown that certain valuable crops can be raised with much less labor than others, and that some will flourish better without irrigation in some parts of America than they will flourish in any part of Humid America.

Work on these lines is in progress and is far from being complete; but among the crops proved to be particularly adapted to cultivation on the high, dry plains are dwarf Milo maize, Turkestan alfalfa, Kaffir corn, proso, emmer, Swedish oats, beardless barley, native white stem grass, and several other native grasses. More important than any of these, however, is durum, or macaroni wheat. The first crop of this of commercial importance grown in the United States was harvested in 1901, and amounted to 100,000 bushels. Last year the crop exceeded 15,000,000 bushels. It will not thrive in humid regions, requiring for its most perfect development a dry climate and a semi-arid land. The The variety best adapted to cultivation on the American plains is Kubanka durum, native to the great plains of Russia north of the sea of Azov, where the climatic conditions existing in Eastern Colorado and Western Kansas and Nebraska are almost exactly reproduced. Experiments conducted by the Colorado State Agricultural College last year at Littleton, in El Paso county, resulted in an average yield of forty-seven bushels to the acre, without irrigation. At Fort Collins, nearby, a small irrigated field yielded forty-five bushels to the acre, but of a quality very inferior to that grown upon non irrigated land. Exhaustive tests have shown that for all baking purposes this wheat is superior to any of the ordinary varieties of Winter and Spring wheat grown in this country; and laboratory test have proved that it contains a higher percentage of both sugar and gluten than do the common varieties, making it more palatable and more easily digested. Durum is widely known in Europe for the manufacture of macaroni and like products. Nearly 2,500,000 pounds of the manufactured products and a considerable quantity of wheat and flour are imported into this country every year, for the reason that the common varieties grown in America make very inferior macaroni, vermicelli and spaghetti. It is probable that imports of these products, and of wheat and flour for their manufacture, will show a rapid decline, and will soon cease altogether. For a time the milling interests opposed the general planting of durum wheat, asserting that its hardness would make necessary costly changes in their machinery and methods. However, in the face of a rapidly increasing annual crop of durum wheat, these objections have virtually ceased to be heard. Its general cultivation will be attended with so many advantages that the milling interests will have to adapt themselves to it; and its prolific qualities and suitability to lands that are now waste, make it advisable to raise it, even if it should have to be marketed at lower prices than those prevailing for less hardy varieties. The average crop of durum throughout the West last year was forty bushels to the acre. As its cultivation becomes more general, it is probable that the center of the American wheat belt will be moved at least two hundred miles farther west.

(To be continued.)

Timber Land, Act June 3, 1878.

NOTICE FOR PUBLICATION.

U. S. Land Office, The Dalles, Oregon, July 6, 1906.

Notice is hereby given that in compliance with the provisions of the act of Congress of June 3, 1878, entitled "An act for the sale of timber lands in the states of California, Oregon, Nevada and Washington Territory," as extended to all the public land states by act of August 4, 1892,

John J. Boyd,

of Butte, County of Silverbow, state of Montana, has this day filed in this office his sworn statement No. 2976, for the purchase of the s½ nw quarter and s½ ne quarter, sec 29, tp 12 s, r 11 e, w m,

And will offer proof to show that the land sought are more valuable for the timber or stone thereon than for agricultural purposes, and to establish his claim to said land before H. C. Ellis, U. S. Commissioner, at his office in Bend, Oregon, on November 14, 1906.

He names as witnesses: Amelia Sloan, of Butte, Montana, and A. P. Donohue, F. E. Dayton and William Hunt, all of Laidlaw, Oregon.

Any and all persons claiming adversely the above-described lands are requested to file their claims in this office on or before said 14th day of November, 1906.

MICHAEL T. NOLAN, Register.

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NOTICE FOR PUBLICATION.

Department of the Interior.
Land Office at The Dalles, Or., Sept. 4, 1906.

Notice is hereby given that William C. Lathim, of Madras, Oregon, has filed notice of his intention to make final commutation proof in support of his claim, viz:

Homestead entry No 13123, made December 16, 1903, for the e half se quarter and e half ne quarter of sec 24, tp 9 s, r 13 e, w m,

And that said proof will be made before D. P. Rea, U. S. Commissioner, at his office in Madras, Oregon, on October 4, 1906.

He names the following witnesses to prove his continuous residence upon, and cultivation of, the land, viz:

P. N. Vibbert, L. T. Larson, George Monner and William Brownhill, all of Madras, Oregon.

MICHAEL T. NOLAN, Register.

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NOTICE FOR PUBLICATION.
Department of the Interior.
Land Office at The Dalles, Or., Sept.

Notice is hereby given that [illegible] Houk, of Lamonta, Oregon, has filed notice of her intention to make commutation proof in support of claim, viz:

Homestead entry No. [illegible] December 19, 1903, for the Lots 5, tp 18 s, r 14 e, w m,

And that said proof will be made before the County Clerk, at Prineville, Oregon, October 8, 1906.

She names the following witnesses to prove her continuous residence and cultivation of, the land, viz: James McMeen, Robert [illegible] John Helfrich, and Everet [illegible] of Lamonta, Oregon.

MICHAEL T. NOLAN, Register.

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