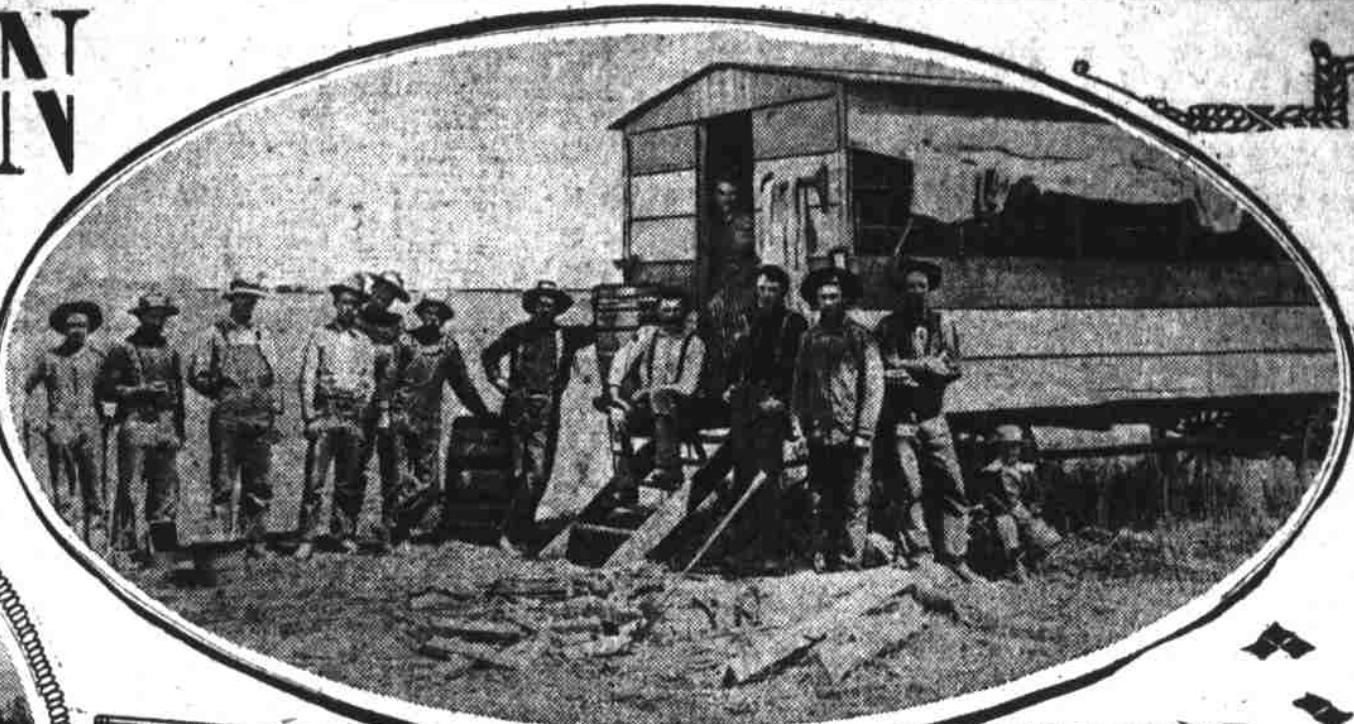


WILL OREGON LEAD IN WHEAT PRODUCTION?



THE SELF-BINDER AT WORK



COOK HOUSE AND HARVEST CREW



COMBINED HARVESTER SACKING 2000 BUSHEL DAILY



NEW COMBINE DRIVEN BY GASOLINE POWER



THRESHING IN UMATILLA COUNTY

The Government's Successful Search for Hardy Grains Likely to Change the Agricultural Map of the United States

Written Especially for The Journal.

WITH the harvesting of the greatest wheat crop in the history of Oregon comes the question, what of the future? Shall Oregon always remain near the bottom of the list in wheat production, or shall she, through the scientific cultivation of the great stretches of semi-arid land and through the development of hardy wheats, lead all the states of the Union?

The question may at first seem idle. After consideration of certain new and rather startling facts it not only does not seem idle, but there seems no answer possible but an affirmative one. Hear the strange story of how all this is to come about.

Oregon is credited with producing 15,000,000 bushels of wheat last year, while Minnesota at the head of the list produced 94,000,000 bushels. Oregon has millions of acres of idle land suitable for grain production; Minnesota has no idle land worth mentioning.

Immense Grain Production.

Let us have some cold facts upon the wheat crop. In the United States, 75,000,000 bushels already are of the semi-arid grown durum wheats, acknowledged as the best bread flour wheat in the world.

America's average yield of all wheats, soft and hard, per acre is 12 bushels; England averages 32, Germany 28, and China, with her sewage fertilized farms, 50 bushels. If we lived up with England our crop would jump to nearly 2,000,000,000 bushels from the same area of land, estimated at 50,000,000 acres under wheat cultivation.

The semi-arid wheats, Turkey red, as a winter wheat, and durum, as a spring wheat, the two best bread wheats in the world, are eminently adapted to Oregon's semi-arid lands and to dry farming methods.

Large Dry Land "Farms."

Under the Mondell act, settlers can "take up" 320 acres of semi-arid land instead of the usual 160 acres of moist government lands. This is because in dry farming half the farm lies fallow, half producing and the other half "resting" and storing up water. No dry farming land in a semi-arid district has as yet been known to fail in moisture sufficient to carry a wheat crop to a successful harvest. And the millions of acres of idle land! Who can say how soon they will be productive?

Let us look at the yields per acre. Turkey red wheat, a superb bread wheat, rich in gluten, a winter wheat, yields on semi-arid dry farmed lands 25 to 30 bushels per acre.

Durum, a spring wheat, yet richer in gluten than Turkey red, richer in natural sugar and making a loaf of bread surpassing all other breads because of nourishing properties, sweetness and flavor, yields 20 to 40 bushels per acre from semi-arid lands, dry farmed.

Searching for Hardy Wheats.

In the Dakotas are stretches of dry lands, semi-arid lands. Farmers located there had their crops dried up by the hot winds and burnt out by the sun. Nothing would grow. They laid down on Secretary Agriculture Wilson 11 or 12 years ago and cried for help;

asked that they be given a crop of some kind that they could grow and live from. Secretary Wilson sent Professor Carlsson to the dry steppes of Russia to hunt for it. He brought home several bushels of durum wheat, Kudukka durum wheat, that was on the exchanges of Russia considered the prize wheat, and that always commanded a premium. The trip and wheat seed cost \$10,000. The grain fitted the dry lands perfectly. Up to date nearly 200,000,000 bushels have been harvested in the aggregate, valued at nearly \$300,000,000.

The method of dry farming is the opening of the earth deep, 18 or 22 inch plowing, securing the rainfall, and then mulching the surface by harrowing, and keeping the fields harrowed to prevent crust formation and the growth of weeds. This mulch, destroying capillary attraction, seals the water in the ground as if covered with a rubber blanket.

Conserving Moisture by Culture.

The land lies fallow, idle through the season, or rather one half of the 320 acres, 160 acres only is not cropped. But the land is not really idle. The hot sun, the oxygen in the opened soil and the moisture in the earth make a combination plant food factory. Nitritation of the soil is going on, food for the wheat plant being prepared. The next seasons rolls around; the land is opened up for the rains once more; then it is harrowed into a mulch, the wheat drilled in and growth commences.

When the grain is up five or six inches the wheat covered land is again harrowed to a good mulch. The two

to three inches of harrowing cannot disturb roots several inches down in the earth. This final mulching is invaluable.

There's six feet of absorbed moisture in the soil of the rainfall of two seasons, and it is on top ready for any call that can be made upon it. The sun gets busy sucking moisture out of the growing wheat plants, but the little rootlets fairly bathed in water deep down are ready for any call and give to the plant all the water it requires so with their heads in the sun and their

roots in the wet earth the wheat plants mature and go on to a perfect harvest.

There is no turmoil on the irrigation flume at the wrong time; there is no drowning of wheat. In dry farming it is all up to Mother Nature, who is quite an old hand at the business and makes no "breaks."

This plan, rigorously carried out, has never failed. No artificial irrigating process compares in certainty and security to dry farming, for the water, sealed in the earth, Mother Nature will attend to all the details with a nicety

that man cannot equal, nor ever hope to approach.

Nowadays the manufacturing plant has a way of following the producing point of the raw materials. The New England cotton weaver is pulling up stakes and moving his mill to the cotton fields of the south. Pittsburg gets close to the coal with her mills; Minneapolis is close to the wheat fields and draws much of the power for her mills from the Mississippi, or if not, uses cheap water-hauled coal from Duluth.

And Portland? How about Portland, with the future grain fields right at her door, and a down hill haul to the ships and the mills? She must succeed Minneapolis as the flour city. Great mills with capacities of 10,000 to 50,000 barrels of flour a day, will one day dot the waterfront. Trainloads of flour and feed will go eastward and, passing through Minneapolis, drop off a few cars en route. This is not a dream; all it needs is the hand of time to go round the clock and capital to put the mills into operation.



BONANZA FARMING IN CENTRAL OREGON

WHY CORN IS KING—Right to Crown Is Established

From the New York Sun.

CORN is the king of the grains in the number of bushels produced and in all around usefulness, defies Farm Machinery. It is the foundation for the livestock industry of the United States, especially hog raising.

Corn is used directly for food by thousands of people in the form of corn bread, hominy and many excellent dishes. Indirectly it is the food for the entire meat eating world, but aside from its food uses there are many others that many people have never heard about.

People who like to talk in millions and billions should revel in discussing the corn crop. Corn was the gift of the New World to the Old. It probably originated in Mexico. Now it is grown all over the world and the average annual crop is about four billion bushels. The United States furnishes two-thirds of that total.

Every year some new use is found for corn. In the old days there were only two ways to dispose of it—to feed it to cattle and, in the shape of cornmeal, to some people. The meal had to be for local consumption, because when made as it then was, from the whole kernel, it soon became rancid.

From the germ, which is separated from the kernel in the milling process, the oil is extracted by chemical and mechanical processes and constitutes a product which is coming into use in the manufacturing of paint.

The vulcanized oil is used extensively in surfacing linoleum and oilcloth and is applied to a number of other purposes. After the oil is extracted there is left a valuable residuum known as

corn oil cake, which is sold here and abroad and is used in the fattening of sheep and other animals. Nearly fifty million pounds of this material are annually shipped to Great Britain and Germany and there used by farmers, who find it cheaper than materials of a similar nature which they can grow at home.

Glucose Used Extensively.

A corn product which is coming into extensive use is glucose, made from starch, water and sulphuric acid. Confectioners use large quantities of glucose, which is a colorless, sweetish syrup useful as food when properly taken. Nearly two hundred million pounds of glucose are sent out of this country each year to all parts of the world.

From cornstarch also comes dextrin of several kinds, used extensively in the making of glue, paste and mucilage. When one licks a postage stamp one gets a taste of dextrin, flavored often with some harmless preservative. Despite the advancing price of the grain it is still one of the most economical sources of a product which under different legal restrictions from those now in existence may become important as a source of heat, light and power in homes, especially farm homes.

Experiments conducted here and abroad demonstrated that bulkheads constructed of cornstarch were nearly impervious to water when a shot passed

through them. Some of the largest ships are now protected with a belt of corn pith cellulose made largely from corn grown in the Ohio valley. The same material, or modified forms of it, is used in the manufacture of high explosives, such as gun cotton and smokeless powder.

Pyrroxin varnish, another material made from cellulose, is a very useful product in the manufacture in connection with the other products just mentioned.

From time to time the attention of the country has been directed toward the vanishing supply of wood for the manufacture of paper or paper pulp. Various attempts have been made to manufacture paper from other materials and a good many years ago samples

of fine paper were produced from corn stalks. The processes as followed were, however, not economical, so that the work was abandoned. More recently new light has been thrown on the subject through improved methods and processes.

Corn Stalk Products.

Like the grain the stalks contain a number of products which can be separated under proper chemical, physical and mechanical processes. It has been demonstrated that a form of low grade molasses can be taken from cornstalks without in any way detracting from their value for the manufacture of paper.

In passing it would be well to call

attention to another part of the corn plant which is considered a more or less useless thing by the farmer, the cob.

With the increased knowledge which experimental work has developed at the agricultural colleges and stations the usefulness of this material as a stock food when ground in connection with grain has been shown.

Large quantities therefore of ground grain and cobs are now used for feeding. The cob is also ground and mixed with various highly concentrated feeds such as cottonseed meal and sold for stock food. Large quantities of cobs, furthermore, are utilized in certain parts of the Mississippi valley in the manufacture of corncob pipes.

FIRST NEWSPAPER ON THE AMERICAN CONTINENT

IT WAS a little over 207 years—to be exact, April 24, 1704—that the first number of America's first newspaper, the Boston News Letter, made its bow to the public. Two earlier attempts had been made in the journalistic line—one in 1639 and one in 1690—but both attempts were suppressed by the Massachusetts government. The Boston News Letter, however, managed to weather the storm and successfully faced the battle and the breeze for 72 years.

This pioneer newspaper, in what is now the United States of America, was published by John Campbell, postmaster of Boston, who may fairly be called the father of the American press. It was printed sometimes on a single sheet of paper, foolscap size, and sometimes on a half sheet, with two columns on each side.

When the News Letter was 14 years old Campbell enlarged it, in order, as he informed his readers, "to make the news newer and more acceptable." "This time twelvemonth," he says in his announcement, "we were 13 months behind with the foreign news beyond Great Britain, and now less than five months since January last," and he encourages his subscribers with the assurance that if they "will continue steady until January next, life permitting, they will be accommodated with all the news of Europe that is needful to be known in these parts."

Competition Is Met.

It is just possible that the wonderful enterprise thus suddenly manifested by the proprietor of the News Letter may have been helped along some by the fact that he now had a competitor in the

Journalistic field in the shape of the Boston Gazette, published by William Brookes, the first number of which appeared in December, 1719, about the time that Campbell had his big announcement to the subscribers of the News Letter. The battle between the old pioneer and its rival was a strenuous one, but the newcomer at last bit the dust, leaving the News Letter in full possession of the field. After its seventy odd years of life our first newspaper met its end in 1776, with the British evacuation of Boston.

It may be said in passing that a complete file of this original American newspaper, the only one in existence, is preserved in the collection of the New York Historical society.

When the old Boston News Letter went out of business, in Independence year, Massachusetts had seven newspapers, New Hampshire one, Rhode Island one, Connecticut three, Pennsylvania eight, New York three, Maryland, Virginia and North Carolina two each, South Carolina three, and Georgia one; the total being 31, all of them of weekly publication.

When the constitution went into operation, in 1789, there were printed each week in the entire United States 76,438 copies of newspapers—a circulation that is many times exceeded by that of the New York American alone.

Wonderfully Gallant.

From the St. Louis Mirror.

She—Do you prefer an ugly woman with brains to a pretty woman without brains?

He—Madame, I prefer present company to either.

POLICING THE WHITE HOUSE AND WHY

From the Boston Advertiser.

PROBABLY no other building in America is so well policed as the White House. It takes forty-two men to do it daily. If any mischievous stranger should seek entrance he would not get far. Twenty-four men guard the outside of the building and eighteen the inside. Eight men in the executive offices, fourteen in the White House within and without at night. The number of men enumerated does not include the secret service men who guard the person of the president and who sometimes are in service to guard the members of the president's family.

Every door to the White House is a policeman constantly on guard. There are always two in the basement of the executive offices, where there is a large door leading from the street for the reception of supplies. There is always a policeman at the kitchen entrance. Two men in livery, not policemen, guard the main entrance into the White House at the north portico,

In the daytime there is a policeman in the east room and one each at both stairways that lead to the private apartments of the president and his family on the upper floor. There is a policeman always in the basement of the entrance to which is from the east wing of the mansion.

At night a policeman guards the basement corridor of the interior, another the corridor of the main floor, and another the corridor of the upper portico.

Outside there is constant vigilance in front and in the rear, if the White House may be conceived as having any rear. The south front is as beautiful as the north front, and, indeed, more so. A policeman is always on guard at the south portico, and especially so at night. One parades with the regularly of a sentryman the half covered corridor leading from the White House to the executive offices.

That the White House should have to be thus carefully guarded may seem strange to Americans whose chief ex-

ecutive is after all only a democrat who is a citizen temporarily holding a high public office. But it is necessary. Three presidents have been assassinated, although none ever at the White House. It would seem none ever could be, because of the vigilance kept there. But a fierce light plays upon the White House and the occupants of it, especially the president. It attracts all kinds of people, and cranks are ever dangerous. Many is the one apprehended before he has gone far. And in this land of liberty there are also other people who have dangerous ideas centering on the life of the chief magistrate.

Besides, Americans, and especially American women, are very inquisitive and given much vandalism. They come in shoals to Washington, and their first thought is the White House. They want to inspect it from bottom to top. They want to kiss nothing, and many of them would like to take away mementoes. Their audacity and lack of manners and observance of other proprieties is amazing.

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