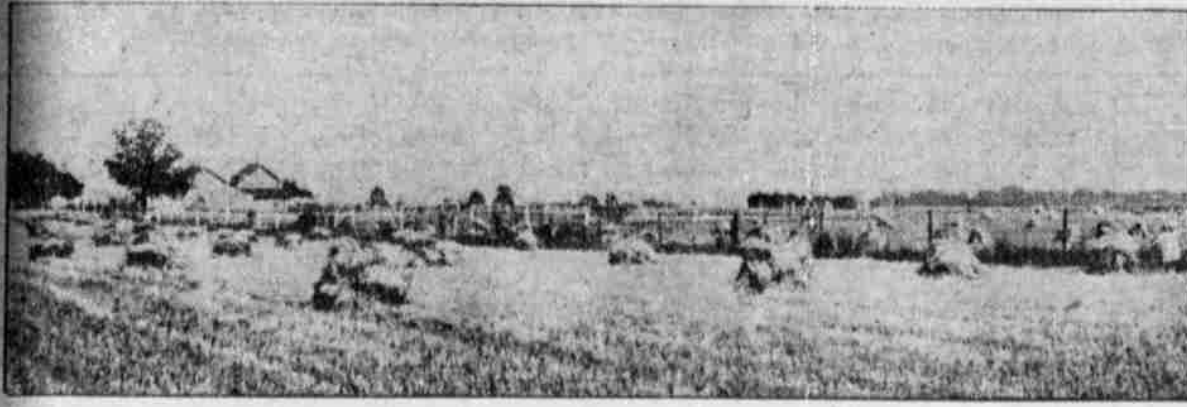


## Economy in Using European Type of Grain Drill



HEAVY CROP TAKEN FROM CLOSELY SOWN FIELD.

BY WILLIAM PRITCHETT.

THE manner of seeding in Europe should be a very profitable subject for the American farmer to consider at this time; very little has been said in the agricultural papers about seeding wheat, rye and other grains in the fields of Europe, where it is not unusual at all to produce 60 bushels of wheat per acre and sometimes as many as 80 bushels per acre have been claimed.

Land, of course, is very valuable in the farming sections and the price of labor is much cheaper than we can realize or understand here in America, so that labor perhaps might be wasted in Europe but the greatest possible care is to avoid the waste of the land.

The European land owner or renter uses a grain drill putting in the

continually guide the machine by the fore-carriage in front (called vordikarre) and this fore-carriage has a long lever that extends clear behind the seed hopper and by using this long lever the machine is guided so perfectly straight that not an inch of land is allowed to be wasted and no crooks in the rows are possible.

Where three men operate the machine, the second man simply looks after the keeping of the seed in the hopper and then it is the exclusive duty of the third man to simply guide the machine and instead of the long lever extending behind the hopper it is hinged so that it can be turned to allow the third man to walk along side of the wheel of the fore-carriage so that he can closely watch the track of the wheels of the fore carriage to see that the machine

rows which allow the sun to come down baking a surface crust and to rapidly take up the surface moisture, especially in a hot and dry year; these wide spaces between the seed rows allow much room for weed seed to fall and every practical farmer knows that it takes just as much strength out of the ground to produce weeds as it does to produce grain.

Another feature of importance to consider in seeding grain is the width of the seed furrow made by the furrow openers because if the seed furrow is very narrow it simply puts one grain of seed nearly on top of another, killing both stalks as mentioned in the report of the Missouri State University, by Professor C. B. Hutchinson, wherein it is found that "not more than 50 per cent to 75 per cent of the seed plants that sprout in the narrow seed rows of a grain drill ever mature."

### Increasing Yield Per Acre.

Besides the importance of producing much more grain per acre with the seed rows closer together there is also the very great advantage that in a dry year when clover is sown with the wheat or the oats the closer seed rows very favorably protect the clover and it has been proven repeatedly that a good stand of clover is obtained under drought conditions with the narrow seed rows when otherwise with the seed rows six inches or seven inches apart the clover has been entirely killed out by drought.

I succeeded in buying a three-inch American grain drill in January, 1912, and have now used this machine for three years, putting the grain drill rows only three inches apart and I have never failed to produce at least 10 bushels of wheat per acre more than any of my neighbors seeding with the rows made six inches or seven inches apart, and my oats likewise correspondingly increased over the wider seed rows.

American apples sold in Sweden are known as California, Oregon and American apples.



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HARVESTING CROP SOWN BY EUROPEAN TYPE OF DRILL.

rows often as close as 2½ inches apart, never more than 3 inches and you simply could not give a European farmer a grain drill making the rows more than 3½ inches apart.

### European Grain Drills.

Again, if you would investigate the type of grain drill used in Europe it will be seen that they use two men and very often three men to operate a European grain drill; one man doing the driving of the oxen, camels or horses and then if two men are operating the machine the second man sees to it that the hopper is kept properly filled with seed and that the seed is kept flowing steadily and accurately. Besides it is his duty to

is driven absolutely straight so that not an inch of the land is wasted.

### Wasteful American Method.

Let us make comparison of this European system with our manner of seeding in America; the American farmer uses a grain drill with the rows never closer together than six inches and more generally in the corn belt states it is seven inches or sometimes eight inches apart. This American manner of drilling the grain is found to be really better than broadcasting, but it permits a wonderful waste of land; the seed is not properly distributed; it allows a very great waste of moisture because of the bare spaces between the seed

### CROP REPORT OF OREGON AND UNITED STATES.

FINAL estimate of acreage production and price December 1, in the state, and production and price in the United States (acreage and production in thousands, i. e., 000 omitted.)

Crops—	Oregon		United States	
	Acreage	Price Dec. 1	Production	Price Nov. 1
Corn, 1914	22	660	2,672,504	63.7
Corn, 1913	21	598	2,446,988	62.1
Wheat, 1914	799	16,604	891,017	98.6
Wheat, 1913	750	15,717	762,380	79.9
Oats, 1914	364	12,740	1,141,060	43.8
Oats, 1913	360	15,228	1,121,763	39.2
Barley, 1914	122	3,660	194,952	64.3
Barley, 1913	120	4,200	178,189	53.7
Rye, 1914	21	334	42,779	36.5
Rye, 1913	20	350	41,381	63.4
Buckwheat, 1914			16,881	76.4
Buckwheat, 1913			13,835	75.5
Flaxseed, 1914			15,559	1.26
Flaxseed, 1913			17,853	1.20
Rice, 1914			23,649	92.4
Rice, 1913			25,744	82.5
Potatoes, 1914	49	4,763	400,221	45.9
Potatoes, 1913	50	6,759	321,525	68.7
Sweet Potatoes, 1914			56,574	72.0
Sweet Potatoes, 1913			59,057	72.4
Hay, 1914	858	1,716	70,071	11.12
Hay, 1913	825	1,732	64,116	12.43
Tobacco, 1914			1,034,679	9.8
Tobacco, 1913			953,724	12.9
Cotton, 1914			15,966	6.8
Cotton, 1913			14,156	12.1
Sugar Beets, 1914			5,147	5.41
Sugar Beets, 1913			5,659	6.69

(Quantities of hay and sugar beets in tons; tobacco in pounds; cotton in bales; other products in bushels. Prices for hay and beets in dollars per ton; cotton and tobacco, cents per pound; flaxseed, dollars per bushel, other products, cents per bushel.)

Wheat sown this Fall in the state 636,000 acres, compared with 635,000 acres last year; condition 93 per cent normal, compared with ten-year average of 95. Similarly, in the United States, 41,300,000 acres, compared with 37,100,000 acres sown last year; condition, 83.3 per cent, compared with 90.3, the ten-year average.

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