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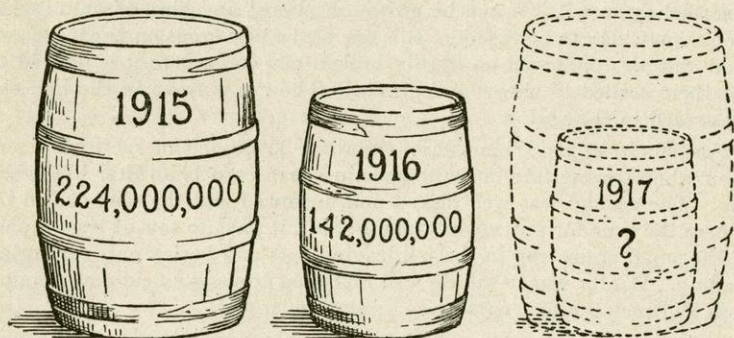
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Help Fill the Nation's Flour Barrel



Secretary Houston of the U. S. Department of Agriculture asks Wisconsin to plant 130,000 acres of winter wheat this fall, and 535,000 acres of winter rye. 29,000 more acres of wheat than last year, and 89,000 more acres of winter rye! Help Wisconsin Do Her Share.

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Help Fill the Nation's Flour Barrel

R. A. MOORE AND E. J. DELWICHE

Wheat and rye are the two great bread cereals.

Yields of from 40 to 45 bushels to the acre of winter wheat and rye are possible where pure-bred strains are sown.

Wisconsin's total yield could be raised from 20 to 25 per cent if every one used pure-bred varieties of these and other grains.

RYE—A SURE CROP

Winter rye is about as sure a crop as can be grown. Few failures are recorded against it. It can be grown on almost any kind of soil ranging from heavy clay to light sand. It is one of the best crops on newly cleared land and also does well on freshly broken marshes where it is desired to get them seeded to clover and grasses. The rye is sown in the fall, the grass seed in the spring.

Farmers in upper Wisconsin have grown 35 bushels of rye to the acre even when sowing late in September on clean corn land after filling the silo. The ground was well disked and harrowed and the seed drilled in. Where the time for putting in grain is short, it pays to sow at least a part of the small grain crop in the fall leaving oats and barley only for spring seeding. Winter wheat will do well following crops like field and canning peas, cultivated crops, oats or on young clover sod.

Winter wheat does best on rather heavy loams and clays. Good wheat crops are grown upon the well-drained, heavy red clays of which there are thousands of acres in the Lake Superior region. The areas especially adapted for wheat in Wisconsin are: counties adjoining Lake Winnebago, the lower Fox River, Green Bay, and Lake Michigan: Polk, St. Croix, Barron and adjacent counties; and most of the counties in the southern part of the state.

The adaptability of these soils to winter wheat, when good rotations are followed, have been demonstrated on the Station farms at Madison, near Ashland and Superior and by a large number of farmers throughout the wheat growing sections.

Where conditions are not as favorable as they should be for wheat, rye should be substituted for it.

GOOD DRAINING NECESSARY

While possessing a fertile soil well adapted to wheat some sections are often lacking in good surface drainage. This as a rule can be supplied by plowing in narrow lands leaving open dead furrows, and by occasionally putting in cross and head ditches to help carry away the surface water. The land should be plowed in the direction of the greatest slope. Much of the winter killing results from poor drainage.

Farmers in the Fox River Valley and some of the sections plow their fields in narrow lands ranging in width from 20 to 40 feet, leaving an open dead furrow between lands. Where the ground has little slope, the fields should be plowed in "lands" two rods or less in width and good main ditches should be run to a nearby water course.

By plowing in this manner, the water from spring rains and melting snow is carried away rapidly, thus preventing the drowning of the grain. Unless the land is well drained there is great danger of winter killing for winter wheat will kill out if an ice sheet forms on it. This to a lesser degree is also true of rye.

PASTURING RYE AND WHEAT

When the rye crop is sown early, before September 10th, it will with favorable weather conditions make considerable growth in the fall. Such rye fields may be pastured with *cattle* but care should be used not to allow the animals on the land in wet weather. Otherwise the crop will be lighter than if they are taken off during wet spells. Winter wheat, as a rule, should not be pastured as all the fall growth is needed to protect the roots from the frost during the winter months. Where conditions prevent the keeping of stock from winter grain fields during the fall months, it is better to sow rye than wheat. Many a good field of winter wheat has been spoiled by fall pasturing.

FITTING THE SEED BED

Wheat and rye need a firm and well-worked seed bed. If the connection between the furrow slices and the subsoil is poor, good results are not likely to follow. For this reason, land intended for wheat, where possible, should be plowed two or three weeks before seeding. Meadows, clover fields or pastures, should be plowed immediately after haying, and not later than August 15 or 20. Old sods should have been plowed in July, thus giving time to settle or rot before the wheat is sown. With June grass and timothy seed there is danger of the grass growing between the furrows after plowing. To prevent this, the land should immediately after plowing be rolled, or planked with a heavy planker and then disked well so as to fill the cracks between the furrows. A few workings early in the season will put the land in nice mellow condition. When seeding time comes the land can be fitted with spring tooth disk and spike tooth harrow. Land intended for wheat should be plowed to a fairly good depth, from six to seven inches. Shallow plowing is not desirable as the seed bed cannot be fitted properly. Too deep plowing will bury the sod so deeply that the crop will not get much benefit from it the first year.

It is unwise to wait for a rain before seeding, should the ground be dry. A better plan is to work the soil well and compact it thoroughly, as sufficient moisture will then be raised up to germinate the seed. While heavy soils should be well worked, the ground should not be in too powdery a form. Small clods from the size of a pigeon egg to that of a large hen's egg are not undesirable. In fact, with plenty of crumbly earth between the clods, such a seed bed is very satisfactory. The small lumps help to catch the snow and in the spring they break up and tend to counteract the effects of heaving.

The depth of planting should vary according to the amount of moisture present in the soil. If the soil is well loaded with moisture at planting time, the seed should be planted in a comparatively shallow depth, about an inch or even less. When the soil is dry, the seed should be planted deep enough to come in contact with moist soil.

THE RIGHT TIME TO SOW THE SEED

Many of the poor results obtained in growing winter wheat are due to late seeding. In extreme upper Wisconsin, wheat should be sown about the first of September, from August 25 to September 15. The sowing period for all Wisconsin is Sept. 1 to September 15. If sown later the crop will not have grown to enough size to be sufficiently rooted to withstand heaving. In the eastern Wisconsin clay area, seeding should begin about the same time as in the north, but may continue for a week to 10 days longer. Good wheat has been grown at Ashland from seeding after September 20, but these have been exceptional cases. If seeding has to be delayed on account of rains or other circumstances, the crop can be greatly helped by top dressing with strawy manure during the winter. By holding the snow, this will tend to prevent freezing and thawing during mild spells in winter, and the heaving out of the grain in the spring. If not possible to sow until late in September, it is best to put in rye instead of winter wheat. Rye may be sown at any time from September 1st to October 1st and even later. After October 1st, however, the chances for a heavy crop are not as a rule so good as if sown earlier.

RATE OF SEEDING VARIES

The amount of seed required varies according to the time of planting and the condition of the soil. The rate of six pecks to an acre is about right for early seeding with plenty of moisture in the soil. When very dry conditions prevail, and for late seedings, from one to two pecks more an acre is required. After sowing the grain, the dead furrows should be opened with either the ordinary plow or shovel plow in order to restore good surface drainage. After running the plow in the dead furrows, the loose soil should be picked up with a fork or shovel and thrown on the land so as to remove obstructions that may prevent water from draining directly into the dead furrow. An expenditure of a dollar or so an acre for such work after seeding will pay well; in fact it may mean the difference between success and failure in growing the crop.

PEDIGREED SEED WILL INCREASE YOUR YIELD

A limited amount of pedigreed high yielding winter wheat and a large amount of pedigreed rye will be available for seed this fall. Untried varieties of wheat should not be sown as the results are likely to prove very unsatisfactory. Some varieties acclimated to upper Wisconsin conditions are available. The varieties of seed best adapted for sowing in Wisconsin are: Winter Wheat; Turkey Red Wisconsin Pedigree No. 2; Bacsca Wisconsin Pedigree No. 408, and Kharkov Wisconsin Pedigree No. 208; Winter Rye; Wisconsin Pedigree No. 1 and No. 2. A list of farmers having this seed can be secured from your banker, your miller, or the Secretary of the Wisconsin Experiment Association, Madison.

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