Field Crops

PREVENTING RUST LOSSES

Q.—Is there any treatment for rust such as there is for smut which will insure protection from this disease? What can I do to reduce the possibility of rust losses to a minimum?—J. C. S., Man.

A.—No specific remedy has been discovered that will control rust such as is the case with smut. Rust spores may be attached to the seed grains but these do not attack the sprouting grains. The usual smut treatment would, undoubtedly, destroy the rust germs that were attached to the seed, but it is shown by experience that wheat grown from seed treated for smut is just as liable to attack from rust as that grown from untreated seed. Rust only develops in those seasons in which, at a certain stage of the development of the wheat crop, the air is very humid, so that the rust spores find moisture enough in which to develop and attack the crop. Only preventative measures can be adopted. The object of these should be to produce a strong, healthy crop that will be able to resist to the fullest possible extent the attacks of the rust fungi.

There are several things that can be done and these should always receive attention, as any season may turn out to be a bad rust season. An important precaution is early sowing and the use of early maturing varieties so that the crop will be as far advanced as possible should a rust period set in. The crop may thereby escape the disease altogether or be so far advanced that the loss will be reduced to a minimum. Good tillage methods are also important as these result in a strong, healthy growth which will enable the plant to resist the attacks of the disease. The preparation of the seed bed should be such that the seed may find most encouragement from aeration, warmth and moisture. Rotation of crops which tends to conserve soil fertility, and check the weeds, also assists in securing a vigorous growth of wheat. Weeds impoverish the soil besides using up soil moisture that should be retained for the wheat, thereby inducing slower growth which may render the plants more liable to attack. The selection of the seed grain is an important matter. Large, plump seed starts the crop off earlier, especially during a cold, backward spring. Old seed grain or damaged grain of low germination power will result in a later and feebler growth, with an increased predisposition towards disease. Before sowing your grain see that you have the best seed available, taking care to have germination tests made to ensure its viability. These precautions, early sowing, the selection of the best seed obtainable of an early maturing variety and good tillage, all tend to reduce losses in a rust year. They are only preventatives, but so far preventative measures are the only ones to recommend for reducing rust losses.

MEASURING GRAIN IN BIN

Q.—Can you give a rule for estimating the amount of wheat in a bin from the measurement?—W. H. McL.

A.—Since wheat varies in weight per measured bushel it is impossible to tell exactly the number of bushels in a given volume. The standard bushel in Canada is the Imperial, which contains 2,218.192 cubic inches. In the United States the Winchester bushel, which contains 2,150.420 cubic inches, is used. The Canadian bushel is therefore larger in volume than the one used in the United States. The Imperial bushel contains approximately .78 cubic feet. To multiply the number of cubic feet in a bin by .78 therefore would give the number of bushels. This is simply done by multiplying the cubic feet by 78 and dividing by 100. A simple rule which is frequently used in measuring grain in elevators is to multiply the cubical contents in feet by eight and stroke off the last figure. This is only approximate, but of course approximate results only can be obtained from measurements.

DIVERTING OATS FOR SEED

Q.—I shipped a car of oats to the order of a firm in Winnipeg, billing the car to Moose Jaw. These oats were without a doubt suitable for seed if they had been cleaned. They were pretty dirty and graded One Feed on that account. Is it not reasonable for me to expect that the company handling the car would have looked after it, have had it cleaned and sold for seed oats?
Sask. R. Y. B.

A.—Without specific orders to that effect we hardly think your agents should be expected to order the cleaning of the oats at Moose Jaw. The probable loss in the cleaning process might well be sufficient to more than offset the gain in price per bushel. This often happens and the grain company would hardly be justified on taking chances with your grain.

If as you say the oats were very dirty it is reasonable to suppose that 10 per cent would be lost in the cleaning process. This on 2,000 bushels would be 200 bushels. At 90 cents this is $180 and together with the cost of cleaning would equal a loss of $200. The gain on the other hand would be in the neighborhood of 10 cents per bushel. On 1800 bushels this is $180, so you see that the result of the cleaning would practically have to show Seed Oats, to make the cleaning profitable.

PRICE OF SEED WHEAT

Q.—Is it within the law for me to charge more than the fixed price for my wheat which I am selling for seed?—J. A. McM.

A.—Yes. Regulation No. 8 of the Board of Grain Supervisors for Canada states that it is not the intention of the board that the purchase and sale of wheat for seed purposes be restricted to these set prices. The board does not require particulars of transactions in wheat for seed purposes between farmers, nor of sales in less than car-load lots.

PRESERVING IDENTITY OF GRAIN

Q.—What recourse have I against an elevator which I suspect of having loaded grain into my car, other than that delivered by me. I am positive that there was more wheat in the sample taken from my car by the government inspector than there was in the oats I delivered to the elevator. The car-load graded feed on account of wheat and I had sold the same oats just previous to shipping as Extra 1 Feed.

A.—If the proper sample was preserved at the elevator it will show conclusively what grade of grain you hauled to the said elevator. You should see that a sample is taken from each load you haul and preserved in the sample box supplied by the elevator for that purpose. The box should be locked and the key kept in your possession. Section No. 168 of the Canada Grain Act provides that if the owner of grain is of the opinion that the identity of his grain has not been preserved he and the elevator agent shall together prepare and send to the Chief Inspector the sample which has been kept at the elevator showing exactly what he delivered. The Inspector's decision is final. If the sample box is found to contain Extra 1 Feed Oats, settlement for that grade must be made and if the car-load was found to contain No. 2 Feed, the assumption is that the grain was mixed in loading.

This will occasionally happen when a large volume is being handled by an elevator, but the sample box always will show the true grade if the owner keeps it under lock and key until his car is inspected, according to the rules outlined in the Grain Act.

SEED GRAIN GRADES

Q.—What is the difference between No. 1 Seed and No. 2 Seed?—B. J. F.

A.—In price the difference is four cents. The Seed Purchasing Commission is paying a premium of ten cents over the May option for No. 1 Seed and six cents over for No. 2 seed. The physical difference is in the proportion of wild oats. In No. 1 seed only one wild oat to the pound is permitted. No. 2 seed is permitted to carry up to sometimes as many as eight or ten wild oats to the pound.

SOLDIERS OF THE SOIL

Possibly the most important class of labor being definitely mobilized at this moment for the farms is that to be known as the "Soldiers of the Soil." This is to be boys ranging from 15 to 19 years of age. It is hoped to place 25,000 such boys on the land in Canada this year.