

Here's help in your Building



FREE TO YOU FOR A 2-CENT STAMP TO COVER POSTAGE.

Have you seen it—the 48-page book, written by an expert, containing *practical* up-to-date ideas for building everything, from a hen house to a stable?

Every point from foundation to roof is taken up in this book and thoroughly explained through working plans, sketches and detailed information which cannot be secured from any other source. It is more than interesting—it is *invaluable*.

Write for it—write now—ask for a free copy of "Practical Farm Buildings." Incidentally it gives you information on the ready roofing question which anyone who believes in getting his money's worth will be mighty glad to have.



Tell us when you write if you're interested in roofing

A silver plated iron dollar looks as good as another, but it won't pass at the bank. Many poor roofings look good outside, but soon show that they are under actual test.

PAROID READY ROOFING not only LOOKS good but is good clear through—the finest felt put into a roofing—made in our mills, NOT BOUGHT IN THE MARKET.

But this is one reason only—you will learn the others and a great deal more when you get the book.

DON'T miss the book—send for it—send NOW.

F. W. BIRD & SON, Es. in U.S.A. 1817. (Dept.) Hamilton, Ont.



Treatment for Smut

The only way that smut can be eradicated, or lessened, in the grain crop, is to treat the seed before sowing. The two treatments most generally in use for this purpose are the formalin and bluestone methods. The former is gradually replacing the latter method.

For smut in oats put four ounces of formalin into 12 gallons of water. Put the oats in a pile and sprinkle the liquid over them, turning the grain so that all are well wetted; let the oats lie for a short time, and then spread out to dry. This quantity of fluid should be sufficient for treating 25 bushels of seed. This treatment is simple and very effective. Care should be taken to see that all the grain is thoroughly moistened by the solution, and that the seed is well dried afterwards.

Some recent tests made by Prof. Shutt, of the Central Experimental Farm, would indicate that the formalin or formaldehyde solution, should not be prepared until just before it is to be used. If the solution is made and exposed to the air for several days the waste in formalin evaporation makes more quickly than the formaldehyde, thus leaving it stronger than intended, and more liable to injure the grain.

Another treatment, beside the bluestone, is the hot water treatment. This is more difficult to manage, entails more labor, and is hardly as effective as the others. The formalin treatment is now considered the simplest, and most reliable, and can be handled by any farmer with little difficulty. Where smut is bad, no seed should be sown without being treated, and, to be on the safe side, all seeds should be so treated.

The Improvement of Farm Crops

Greater efforts are being put forth now, to improve the farm crops of the country, than ever before. Prof. C. A. Zavits, of the Goddard Agricultural College, referred to this subject in an address delivered in Ottawa at the recent annual convention of the Canadian Seed Growers' Association.

Speaking on the details of plant improvement he advised a close study of the foundation stock. There are many varieties of farm crops in Canada and a wide difference in the character of these. There is a great difference in productiveness. One variety of grain will often yield 15 bushels an acre more than another variety of the same kind. Then there are early and late maturing varieties, suitable for different conditions of soil and climate. These must be studied as well as the different characters of grains in their disease resisting qualities, such as smut and rust.

Prof. Zavits instanced an experiment conducted at Guelph, with 250 varieties or strains of oats. Some of these were very much subject to smut while others were not. In one variety only three heads of smut were found during five years growing in this variety. In some varieties of wheat to times as much smut was found as in other varieties grown under the same conditions. Some varieties of potatoes were very much more subject to rot than others. The plant improver must note these points and endeavor to profit from them.

It is a common belief that it is necessary to change seed every three or four years in order to maintain its vitality and producing power. Prof. Zavits protested that this was not necessary. On the whole farm, to varieties of wheat, barley, corn and potatoes had been grown continually for 18 years by selection. With the exception of one variety of potatoes, every variety had given an increased yield the last year over the first.

The selection of the seed alone, while it helped to improve quality and

increase in yield did not make for as much improvement as the selection of individual plants.

The origin of Dawson's Golden chaff wheat, now grown more extensively in Ontario, than any other variety, is a striking example of plant selection. Eighteen years ago Mr. W. H. Dawson, near Fenton, Ont., in walking through his wheat field, which was lodged and weak in the straw, noted one plant that stood up by itself. It was strong in the straw and while the plants around it were down, it maintained an upright position. Mr. Dawson selected the head from this plant, and the next season sowed the seed by itself. From this he was able in a few years to supply his neighbors with seed from it, and in this way it was distributed over the whole country. The Ontario Agricultural College to straws of Dawson's Golden chaff were recently selected, and eight of these were found to give greater yields than even the original, thus establishing the theory that, however good a variety may be it is possible by selecting individual plants to still improve them and increase the yield. Mandchurien barley was another example. Nine thousand seeds were planted at the College under the same conditions. There showed great variation, some yielding one head, other two, others three, up to 25 heads. One strain in particular topping the lot, not only in the tests at the college, but also in the co-operative tests throughout the province, in yield, in strength of straw, and in quality of grain.

Sanitary Conditions in Handling Milk

E. L. The Dairyman and Farming World.—Much has been said on the sanitary handling of milk. Little has been said, however, in regard to the care of milk in transit. This certainly is one of the points that cannot be jotted down as the last and least. It is a shame that thousands of cans of milk are taken to cities daily by various means of transportation without any assurance being given by the transportation agencies as to the safety of this product. This winter should demonstrate the need for a step being taken in this direction. Many dollars have been lost by spills and so forth during the last few weeks. I have seen considerable of this myself.

Accidents are not the only reasons for the much-needed improvement, however. In this connection, every chance is given to jealous or mischievous persons to adulterate the milk or create by putting in water and other foreign material. Again, there are the thirty fellows who have been seen drinking from the cans or putting milk in their mouths. Of course, we could never admit that the people of this country are so horribly bad. It has been proven, however, that there are enough who render it necessary for immediate protective measures being taken. If the health officers and retail milk men do not put such measures in force, producers and citizens should demand it.

If milk is not good, the producers get the blame. If there are scores of inroads that lead to its impurity, all due to the careless way in which it is handled. A can with a sealed lid has no means of contamination. What is wanted is a simple but sure method of locking the lids fast on the inside. Then there would be no danger of anyone meddling with milk. Furthermore, there would be no loss by upsets and railroad accidents.

Let us have the opinion of others next week on this subject. If I was a milk producer, I would not blame for impure or unsanitary milk.—A Consumer.

SEED OATS



BRUCE'S RELIABLE SEEDS SEED OATS

NEW SCOTTISH CHIEF.—A new variety from Scotland, which has met with unequalled praise from all who have seen it. After being well tested here for 4 years we recommend it with confidence. It is an early variety, and produces an excellent straw, which stands up splendidly. It is a heavy white oat of splendid quality, and yields most abundantly.

NEW TARTAN KING.—A highly recommended variety, grain plump, heavy, white; straw strong and bandage; a heavy yielder. 50c bushel.

We also offer the following standard varieties:—

BANNER, SIBERIAN, AUSTRALIAN, GIANT SWEDISH, LEGWOOD, SENSATION, SILVER MINE, 20th CENTURY, and BLACK TARTANIAN. 50c bushel.

EXTRA EARLY DAUBENEY and BLACK GOANETTE. 50c bushel.

Cotton Bags 5c each.

FREE Our beautifully illustrated 100 page Catalogue of Garden Flower and Farm Seeds, Poultry Supplies, Berries, Plants and Implements. Free to all applicants.

John A. Bruce & Co., Seed Merchants
HAMILTON, ONT.

Notice to Farmers and Others

THE TRADERS BANK OF CANADA solicits the accounts of Farmers, School Sections, Churches, Townships, &c. Highest current rate of interest paid on deposits and lowest rates charged on advances. Assets over \$33,000,000.

Head Office: TORONTO Over 80 Branches

It is desirable to mention the name of this publication when writing to advertisers.