

THE FARMER'S ADVOCATE AND HOME MAGAZINE.

THE LEADING AGRICULTURAL JOURNAL IN
THE DOMINION.

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a century, in a letter published elsewhere in this issue, for a scale of rates on export stock discriminating in favor of the better quality stuff seems also a reasonable proposition and one well calculated to stimulate the breeding of better-class stock.

With cheaper material for building stock-barns, and still better facilities for the importation and local distribution of pure-bred stock and the shipment of stock to market, we believe the farmers of the country could safely be trusted to develop the live stock industry at a fairly rapid rate, and on a substantial and permanent basis that would result far more satisfactorily to the great transportation companies than any possible good that may come from the scattering of a few carloads of pure-bred sires among people who are willing to accept them because they are to be had for nothing.

Flax Grades.

The Winnipeg Grain Exchange recently laid a request before the Minister of Inland Revenue to have grades made for the inspection of flax and to have the grading of this grain included in the new Inspection Act. The Minister pointed out that only Parliament itself could legalize any change in the Inspection Act passed last session. He agreed, however, to authorize the inspectors to grade flax if requested by the owners to do so. On the recommendation of the Winnipeg Grain Exchange the grades of flax are fixed as follows:

No. 1 Manitoba flax seed—Shall be mature, sound, dry, and sweet, free from mustiness and containing not more than 10 per cent. of damaged seed, and have a weight of not less than 52 pounds to the measured bushel of commercially pure seed.

No. 2 Manitoba flax seed—Shall be the same as No. 1, except that it may contain not more than 20 per cent. damaged seed and weigh 50 pounds to the measured bushel.

Rejected Manitoba flax seed—Flax seed that is immature, musty or containing more than 25 per cent. damaged seed, and that has been damaged for temporary storage, shall be rejected.

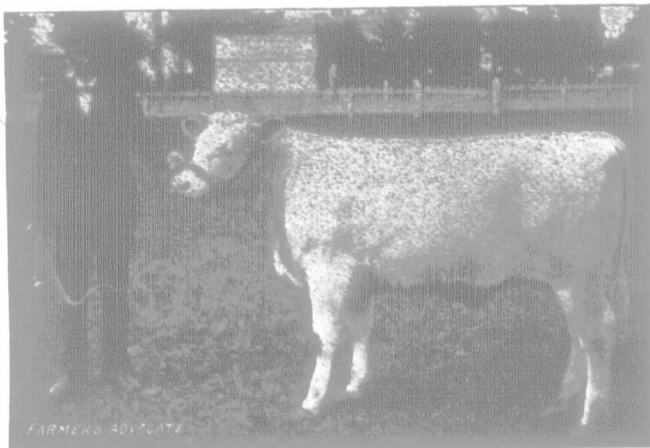
No grade Manitoba flax seed shall be sold as such warm, mouldy, very musty, or so damaged as to be unfit for temporary storage in any other grades of

"no grade," with the inspector's notation as to quality and condition.

Early Fall Plowing Best.

As a rule, fall plowing gives better results in this country than spring plowing, and under existing methods of farming it is almost absolutely necessary to have a large proportion of the land ready in the fall, as the seeding time is so short. Fall plowing should be done early; the earlier it is done the better for the mechanical condition of the soil. Generally, too, the work can be done better earlier in the fall, stubble and weeds can be turned under more thoroughly, the land is left firmer, and much better opportunity is afforded for the action of the weather upon the newly turned up soil in making available for plant food the elements contained therein. The surface also becomes mellowed down before frost sets in, making a more perfect soil mulch, the better to absorb and retain moisture for the succeeding crop. One frequently notices, even at harvest time, on heavy land that had been plowed late the previous fall, with the surface crusted with frost, that it had never become solid, being full of hollows and, of course, badly dried out. It goes without saying that good plowing pays; it can't be done too well, and 50 acres plowed straight and deep, with the furrow well turned and all stubble and weeds carefully covered, will give better results than 100 acres turned over the way one sees much of it done, and careful plowing, cutting and covering everything also helps greatly to kill rose bushes, thistles and other perennial and biennial weeds, and as pointed out by Dr. Fletcher, in our issue of Sept. 20th, fall plowing and burning off stubble will prove the most effective check to the Hessian fly, that in some sections of the country did considerable mischief this past season.

There are frequently low or flat places where water is apt to lie in the spring that a plow furrow would drain. These things should be attended to in good season before the ground freezes up, for water lying on land, particularly heavy clays, greatly injures it, causing it to run together and afterwards bake, besides the delay and inconvenience these low, wet spots cause in the seeding.



SHORTHORN STEER, ELEVEN MONTHS OLD.

Won first prize at Toronto Industrial. Sire Golden Robe; dam Crimson Gem.

BRED AND OWNED BY ISRAEL GROFF, ALMA, ONT.

How Does Frost Affect Grain?

A farmer, in a district that was affected somewhat by the frost of August 4th, writing to this office under date of September 4th, states that there are some curious things to be noticed in the wheat crop as a result of this early frost, and says: "There is an opening for some expert to tell us how the frost works. In the same sheaf can be found heads untouched, heads completely empty but quite green, some with the top half all gone and the bottom quite full, others exactly the reverse, and others with the middle of the head full and good, bottom and top gone."

Each kernel of wheat is the seed of an individual flower containing in itself the male and female organs, which in Nature's own marvellous way unite to produce the mature berry. The flowers on the head do not all come out at the same time. Probably the heads begin to blossom at the lower part and continue up to the top, perhaps a day or more apart, although we have never made close enough inspection to know this definitely. Assuming this to be the case, the phenomenon mentioned by our correspondent is easy enough of explanation. It has been found that the operation of fertilizing a flower of the wheat plant requires but a short time—about three-quarters of an hour from the time the flower opens, bursts the pollen sacs, thus fertilizing the ovary, and then closes up again. And this operation takes place very early in the morning, just about daybreak, which is the time the temperature generally reaches its lowest point, and in the case of a light summer frost coming at the blossoming time, it is quite probable that only those flowers which were open were affected; stopping the fertilization, there could then be no berry from those flowers. Some heads would be caught just when the flowers at top or at bottom were coming out, and others when those in the center were opening. Perhaps someone else can give a better explanation, but it would be still more interesting if a variety of wheat could be found that would be proof against such injury.

Morden Show.

Disagreeable, cold and rainy weather was a damper on the success of Morden's eleventh annual exhibition, held at Morden, Manitoba, on September 27th and 28th, lessening both the attendance and number of entries. However, a visit to the main building showed that a number in the district braved the elements to show to visitors what their district can grow. Field roots and garden vegetables filled the greater part of the main building downstairs. A splendid lot of turnips were shown. Oscar Bowie won first on yellow-tops, Joseph Barrett first on swedes. A nice lot of mangolds, sugar and blood beets were shown by Bowie and Barrett and each shared in the prizes. In potatoes a number of varieties were shown. Northern Spy and Snowflake, exhibited by Mr. J. T. Hutchinson, president of the Society, were awarded first prizes. The seed from which these potatoes were grown was imported from the Experimental Farm, Ottawa. Early Rose, Late Rose, Beauty of Hebron and Burpee's Early, and two other collections, made as good a showing as is generally seen at most local fairs. Field pumpkins were large and well ripened. White corn was shown by O. Bowie and J. T. Hutchinson, and yellow by Mr. Barrett. The cobs were long and well filled out to the end with plump grain. Winningstadt, Winter and Savoy, and red cabbages, were exhibited, and were perfectly shaped and had well-filled hearts. Carrots, onions, melons (musk and water) and citrons, vegetable marrows and squashes added to the vegetable exhibit and helped to convince a visitor that the soil in this locality was adapted to the growing of roots and vegetables, and there were people in the district who knew how to grow them. The exhibit of grain was small. Oscar Bowie won most of the prizes for grain, and he showed wheat, oats and barley.

A large display of photographs by Morden's leading photographer and a display of hand-made harness by Jickling Bros. were also in evidence on entering the building. The Mikado cream separator was exhibited, and how to operate it explained by Mr. Hicks, of Winnipeg.

The upstairs of the main building was well taken up with domestic manufactures, and the quilts, knitted mitts, socks, stockings, samples of darning, homemade shirts, child's dresses, mats, embroidery, crochet work, tea cosies, painting, etc., proved beyond question that the ladies were anxious to uphold their department and were equal to the occasion. The sections in the dairy products were well filled and good samples shown. Oscar Bowie won first on 40 and 30 lb. tubs; Mrs. T. Pierce second on 40 lbs.; and M. Bartleman second on 30 lbs. O. Bowie secured first on fancy butter, 10 lbs. and 1-lb. prints. Mrs. Harrington won second on fancy. T. A. Hanbury second on 10 lbs., and John Stepler second on 1-lb. prints. Mrs. J. T. Hutchinson won first place on homemade cheese, second going to Mrs. D. Harrington. Mrs. Oak headed the list of exhibitors in homemade buns and bread, and Mrs. J. T. Hutchinson in fruit cake. Mrs. Harrington's collections of preserves, pickles and catsup were awarded first honors. Mr. A. P. Stevenson's fruit exhibit was much admired. He showed Hiberna, Wealthy, Astrekoff, Lieby—late fall apples; Anisette, Blue Anis, Russian Gravenstein, White Rubets—other varieties of fall apples; and Blushed Colville—a summer apple. In crabs he showed samples of the Virginia, Transcendant, Greenwood, Witney's No. 20, General Grant and Sweet Russett. He also exhibited a few plums.

The exhibit of cattle was small. Mr. Henry Laycock had out a few Shorthorns, headed by a large red, showy bull, Sir Walter 3rd, recently purchased from Mr. Alex. Morrison, of Carman. A useful three-year-old Shorthorn bull, Manitoba Chief, bred by Mr. Laycock, was shown by Mr. John S. Gibson. A splendid grade spring heifer calf, sired by Manitoba Chief, was exhibited by Walter Blinco, of Nelson. Oscar Bowie exhibited a Polled Angus aged bull, Sir James McGregor, purchased from J. D. McGregor, of Brandon. This bull was bred by W. T. Gordon-Cumming, of Calgary, and is all through a splendid specimen of the breed. The exhibit of pigs was good. John S. Gibson showed a pair of Poland-Chinas, Manitoba Chief and Black Bess, out of D. Fraser & Son's Shamrock, and a nice pair under six months from a litter raised this summer, out of Black Bess. William Topley showed five Poland-China pigs under six months, and three over six months, all thrifty young ones, as were his three Berkshire sows and boar under six months. A few fat grade and Chester Whites were also exhibited. In horses, Thomas Ball showed a fine June foal, out of a well-bred mare sired by the trotting horse, King Rattler, imported by Mr. Fares from Illinois, and is now owned by R. Mitchell, of Morden. Mr. John Sweet also had forward a nice foal, also sired by King Rattler. Mr. Lytle, of Roseland, had out a nicely mated black team of drivers, and John S. Gibson showed a two-year-old foal of Clydesdale breeding.

J. T. Hutchinson, president, and John Gilchrist, secretary of the Agricultural Society, were on the grounds attending to every detail towards the success of the Exhibition, and had there not been so many threshing in the vicinity, and the weather against them, they would no doubt have had a very successful turnout of visitors, and the entries too would have been increased, as a number of parties intending to exhibit their stock were prevented from attending, owing to the rain.