old with the new oats and if, as frequently happens on the farm, this cannot be done, begin gently with the new product gradually increasing the quantity as time goes on and the animal becomes accustomed to the change.

FARM

Keep a Look-out at the Elevator.

Mr. Castle's advice to grain sellers in this issue is deserving of thorough perusal. The farmer as a rule does not take the trouble to learn all the rules governing the handling of grain, not even in many cases acquiring a knowledge of his own responsibility. He is too apt to consider his duty done when he dumps his load into the hopper of the elevator, and while an interfering person is not welcomed by most elevator managers still the farmer owes it to himself to see that no serious errors occur, especially since the scarcity of labor has made it necessary to place men in charge of elevators who have had but little experience. The trouble caused by neglect upon the part of those selling or storing grain, to carefully preserve their storage checks. or to neglect to get receipts for each load,or to note the weights, or to have an eye to the dozen other little things that require attention has been colossal, and would be greater if it were known how great the loss to the producer has been. The excuse in every case of neglect is lack of time, and while it is true that one must keep up a continual hustle when drawing grain away from a machine, still a few minutes spent at the weigh scales can easily be made up on the road or in some other way.

Doubtful of the Pickler in Preventing Smut.

EDITOR FARMER'S ADVOCATE:

Now the crop is cut and threshing partly done I would like to give my views on the grain picklers. I have grown a crop for fourteen years and this is my first experience with smut. Previous to this year I had always immerced my seed but this spring bought a pickler with the result that smut shows in my wheat, and for which I lay the blame on the pickler. I may be right and may be wrong but my idea is that some grains are not touched with bluestone. Another season to test the two methods I intend to immerse all with the exception of an acre or so and see whether my theory is correct.

ED. BROWN

More About Flax Growing.

In a recent issue on page 1431, this paper had an article entitled "Flax as a Crop for the New Settler,"and to the information therein contained we would add the following expression of opinion by Professor Ten Eyck:

"There is a general opinion among the farmers in flax growing regions that flax is a 'hard crop on the land.' This may or may not be a fact. At the North Dakota Experiment Station flax proved to be an excellent crop to rotate with wheat, larger crops of wheat being secured as an average by seeding wheat after flax than by seeding wheat after wheat. Flax does not follow flax very well for more than two or three crops in succession. This is not due to the fact that the flax is 'hard' on the land, but to the fact that the flax wilt, a fungus disease which attacks flax, gradually becomes prevalent in the soil, thus injuring or destroying the flax crop which is grown on such land.

"It is a common practice to grow flax on new breaking, and doubtless it is because of this practice that the impression exists among farmers that flax is a hard crop on the land. Flax is a close feeder and does not root very deeply, and when grown on new breaking the tendency is for the crop to exhaust the moisture very thoroughly, preventing the sod from decaying with the result that when such land is backset the sod will turn over in hard, unrotted chunks, in a very undesirable condition for future cropping. The soil also being depleted of its moisture and plant food is in no condition to start another crop early the next season, but if some late crop be planted on such land it may succeed better than an early seeded crop.

"Experiments conducted at the North Dakota Experiment Station showed that the injurious effect of flax on sod land was much greater when the flax was planted on spring breaking. Ground which was broken the previous season and cultivated some and put into good physical condition produced a much larger crop of flax than the spring breaking, and this land produced an excellent crop of wheat following the flax, while wheat following flax on the spring breaking only yielded about one-half as much grain per acre as wheat following flax on the fall breaking. It appears therefore that flax may have an unfavorable effect on land due to unfavorable soil and weather conditions. In a very dry season the effect of the flax on succeeding crops is apt to be more marked than in seasons of plentiful rainfall. Flax should not be considered a 'hard' crop on the land, however, in the sense that it exhausts the plant food of the soil to a greater degree than other ordinary grain crops. For instance, it was found at the North Dakota Experiment Station that land which had grown six successive crops of flax was not exhausted in fertility when seeded to wheat so much as adjacent land which had grown wheat continuously, the yield of the first crop of wheat after the six crops of flax being nearly double the yield received from land which had been continuously cropped with wheat."

Fall Plowing Quite General.

From our observations throughout the country we are satisfied that more plowing is being done this fall than ever before. This is good. Farmers are coming to the conclusion that fall plowed land when handled properly does not dry out any more than stubble, and that the loss from drifting does not amount to anything considerable. Of course, it is not good policy to simply turn land over and leave it to the drying winds of winter and then harrow it down in the spring even if the crevices do fill up with snow.

Two objects are to be sought in fall plowing. One, to have the land ready for a spring crop, and the other to store up moisture during fall and winter. To accomplish the latter object surface cultivation should follow fall plowing. Moisture is constantly rising from the subsoil and escaping by evaporation from the surface and the greater the surface exposed the greater is the amount of moisture that escapes and the less that is available for the following crop. Harrowing or packing after fall plowing does two things of importance; it reduces the amount of surface exposed and it settles the soil together so that the layer that hasbeen disturbed by plowing can better absorb the moisture that rises from below. This latter point is demonstrated by the fact that a soil so treated freezes harder in winter than a loose lying uneven soil. A soil so treated has the further advantage, in the spring, in that the channels of movement for the subsoil moisture are already established and the spring cultivation arrests this upward movement just at a point where it will do the crops most good.

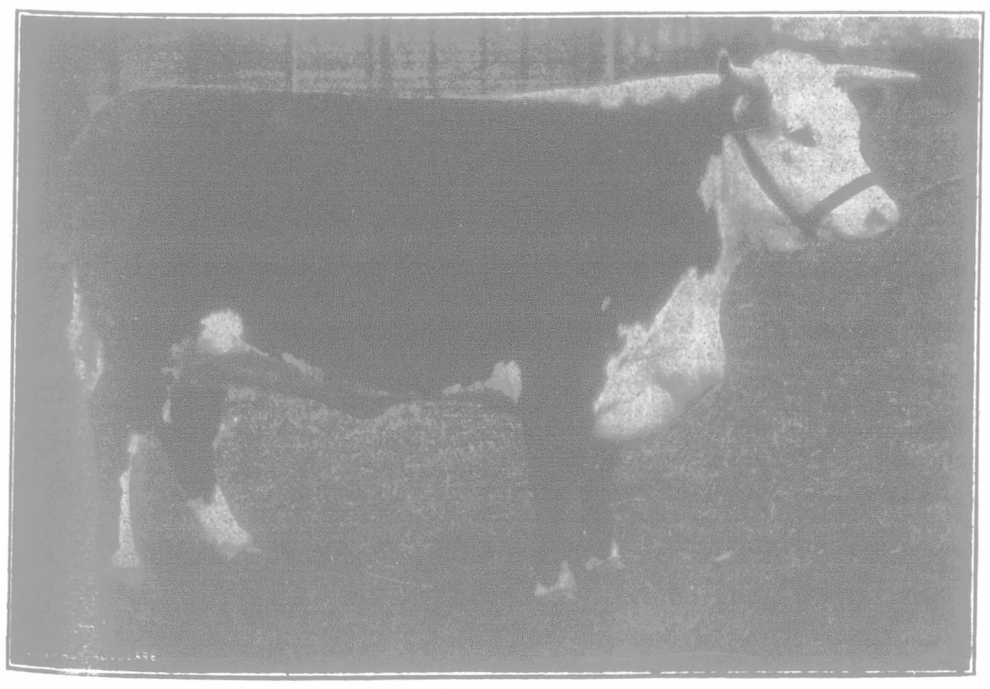
The old method of fall plowing whereby a large surface was left exposed to the weather, is wrong, both theoretically and in actual practise, in a climate like ours and on soils that do not require the action of the frost to make them friable. But the system of fall plowing and packing is likewise correct in both respects, and if anyone has found that he does not have good success from land so treated he should enquire into his methods of plowing and the condition of his soil with regard to fertility. We look forward to the time when the greater part of the stubble land of the wheat belt will be fall plowed even in the drier sections where a few years ago it was declared that a crop could not be grown on fall plowed land. When fall plowing becomes more common the man with the large farm will have less trouble getting his work done, and we shall also hear less about adapting winter wheat to our climatic conditions. Fall plow but do not fail to pack the soil afterwards.

New Institute Superintendent.

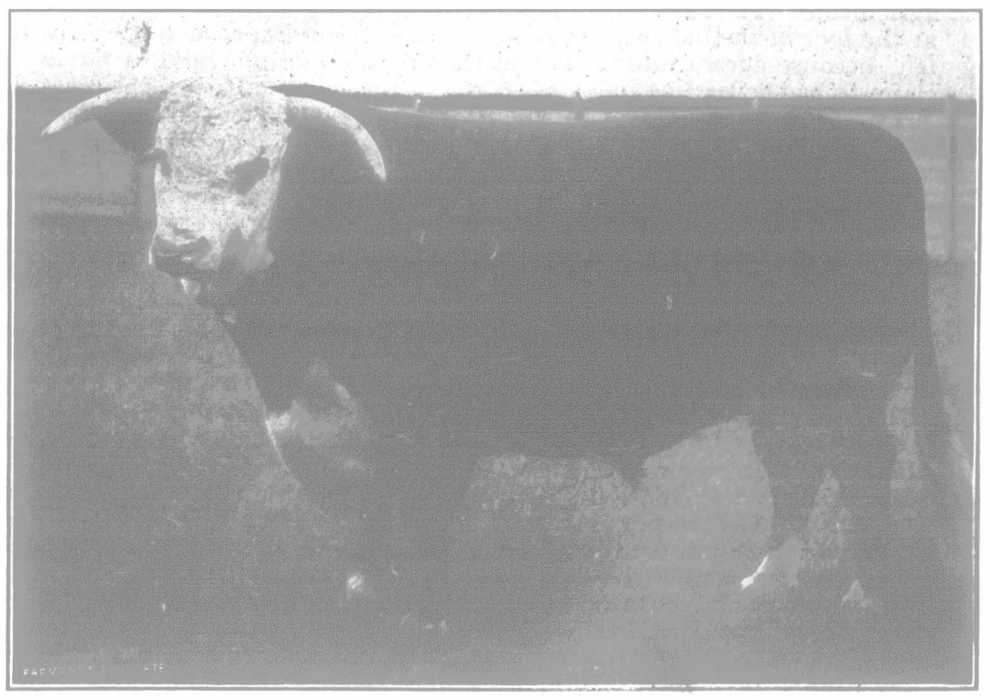
Mr. Horace Craig has recently been appointed to the position of Superintendent of Farmers' Institutes in the Province of Alberta. Craig is a graduate of the University of Toronto in the faculty of agriculture. He was a member of the judging class at the International when the O. A. C. succeeded in bringing the prize trophy to Canada, and when at college always took a prominent part in the various local organizations. He has his work cut out for him in Alberta. It needs a man of life and energy to galvanize into activity the semi-comatose Institute organization. There is no broader field for work in agricultural education than the Institutes and in no work is there more scope for originality in methods. We hope and believe that Mr. Craig will prove more than equal to the new position.

* * *

The farmer loading a car,or cars,of wheat needs to stop all possible leak holes, and also to keep an accurate record of the amount going into the car, as well as to have a witness to the relation of the grain level and the load line.



BRAMPTON AGNES 33RD
Two-year-old Hereford Heifer. First and Ghampion at the Royal Show, 1906



ADMIRAL (23250).
Three-year-old Hereford Bull. First at Royal Show, 1906.