

He's had GARDINER'S CALF MEAL

Ever since he was weaned

"I've never seen anything like it to take the place of your milk and keep calves going right ahead. I feed it first with separated milk, then with condensed milk, and finally with sugar only as the calves grow older. I find it pays for itself several times over in better condition and faster growth."

Gardiner's Calf Meal is guaranteed to contain 19% to 20% Protein and 84% to 92% Fat. This exceptional food value and its easy digestibility explains its success with young colts, lambs and pigs as well as with calves.

Buy it in 25, 50 or 100 lb. bags. If your dealer hasn't it, write us for prices on it and also on Gardiner's Birdseed, Pig Meal, Oatmeal and Ontario Premiums' Cotton Seed Meal.

GARDINER BROS., Food Specialists, SARNIA, Ont.



"CANADA'S GREATEST SEED HOUSE"

STEELE-BRIGGS SEEDS

THE BEST BY EVERY TEST

FOR SALE BY RELIABLE MERCHANTS
EVERYWHERE THROUGHOUT CANADA

SYDNEY BASIC — SLAG —

The Best Value in Fertilizer on the Market

SALES in Ontario in 1913 230 tons.
" " 1916 3,108 "

We suppose you have missed our advertisements recently. Well, we have not retired from business, but the fact is, we had more orders than we could execute, and we had to lie low for a bit. We are now, however, booking orders for the Fall Wheat trade, and we want you to make a start in using Sydney Basic Slag this season. We know you have been thinking of doing so, but now is the time to place your orders. Write us, and we will give you the name of our agent in your district, or if we do not happen to have a man representing us, perhaps you could take a carload of 20 tons and distribute same among your neighbors. You will be reasonably remunerated for your trouble, but, above all, you will earn their gratitude for introducing Sydney Basic Slag into your district. Drop us a line and our general Salesman will give you a call and discuss the matter. If necessary, also, he will help you to canvass your territory. Sydney Basic Slag was first sold in Ontario in 1913. That year we placed 230 tons. This season we have sold 3,108 tons. Think that over for yourself.

Interesting descriptive literature will be sent on application.

The Cross Fertilizer Co., Ltd., Sydney, N.S.

Some Hints on Lightning Rod Installation

And Other Things Learned During a Visit to the Farming Specialist—
"Hulton Farmer," Hulton Co., Ont.

GREAT was the Farming Specialist's point must be on top of the

which I have attended several farming specialists such as the one I ran last fall over the lines of the C.P.R. in Western Ontario, and was interested in a general sort of way. I remember looking at this and that and going away without knowing much more than when I came. I suppose many others have had similar experiences. When the Farming Specialist of last November, however, stopped at Culp's the same day that I was in the city attending the tractor demonstration, I stepped over to the cars to get some definite information. I wanted to know all about lightning rods. I had repaired the buildings on the farm and wanted to protect them with some better insurance against fire than a good insurance policy, although I have the insurance policy as well. I got just the information I wanted. Mr. L. B. Martin gave me full and complete instructions for making my installation. I will not tell here all that I learned from Mr. Martin, as much of it dealt with my own peculiar problem, but I believe I may be doing many others a favor in passing on some things I learned that apply generally.

We first discussed the type of lightning rod that it would be most advisable to install. I asked about the iron centre rod. For answer Mr. Martin showed me some specimens he had in his exhibit. On one side was a new iron centred rod in its copper sheath. Right near it was a section of an iron centred rod that had been used in rodding a building eight years ago. The iron had all rusted out, although the copper was as good as ever.

"I certainly would not advise the iron centred rod under any conditions," Mr. Martin informed me. "In fact, the pure iron rod does not rust as fast as the iron-copper rod. The conducting power of the iron is only one-half as great as that of the copper rod, but its melting power is higher. The only place where there is much danger of melting, however, is at the point. Hence we get the ideal rod in a combination of a steel tip and a copper conducting strand."

Lightning Rod Fasteners.

We then discussed methods of fastening the rods to buildings, and Mr. Martin had specimens connections right on hand. I learned that there are two general types. Some hold the rod close to the building. The claim on behalf of this method is that the copper, coming in contact with the building, will remove the charge from the building with any danger that might involve. A disadvantage, however, is that straw and chaff collect around the rod and are held there. Other rod fasteners, and these are considered the most satisfactory, insulate the rod from the building by holding it three-quarters of an inch away.

I made bold to ask a question. "Is there anything in the claim that a metal roof is protection against lightning?"

"A metal roof does not protect in any degree against lightning," Mr. Martin assured me. "unless it is furnished with points to draw the charge and is properly grounded at all four corners. The metal roof of itself has no virtue. On a metal barn I would have the proper points at the ridge and welded into the metal of the roof. At each of four corners I would connect a copper rod and run it down deep enough into the ground to be in contact with permanent moisture. If there are cupolas on the roof,

Another point I learned from a model of a properly rodded barn that Mr. Martin had in his exhibit, was that all metal construction such as the hay fork and the other carrier track, should be connected with the grounded rods, which, to reach moisture, will necessitate burying them eight to 10 feet deep.

In rodding houses I was advised that the rod travelling along the ridge board should be carried around the chimneys and not over them, and then grounded at eave corners diagonally opposite. A general rule that Mr. Martin gave me was that the points on the roof which absorb the charge should be four times as far apart as the points are long. Much more I learned in connection with lightning rods, but I will not carry this subject any further.

Value of Tile Drainage.

From placards on the car walls I noted the following testimonials as to the value of the drainage:

Mr. Hoehner Matchett, of Peterboro county, harvested a crop of oats, 67½ bushels to the acre, from a tile-drained field, white from land of exactly similar quality but undrained, the crop threshed only 21½ bushels, a difference of 85½ bushels to the acre in favor of tile drain. At the price of oats last fall I calculated that the increase in that one crop nearly paid for the drains, providing the cost about the same to drain a field in Peterboro county as in Hulton county.

Mr. Sandy Matchett, also of Peterboro county, sowed mixed grain, and from his drained land harvested 1,431 lbs. to the acre and from undrained land 923 lbs. The value of the difference in yield was estimated at \$6.37. Barley was the crop reported on by Albert Snell, of Hildamand county. From drained land he harvested 31 bushels, from undrained 27½ bushels, and the value of the difference was \$6.41.

Wheat must respond particularly well to tile drainage. So says McLaughlin, of Tara, Ont., threshed 93 bushels of wheat from drained land and only 11½ bushels from undrained. This, I suppose, was an exceptionally good showing; the difference in yield was figured at \$19.44.

The value of alfalfa as a crop for the dairy farmer was brought forward most strikingly on a card which stated that the average yield at the Ontario Agricultural College in 16 years had been 4.77 tons to the acre. The number of pounds of digestible protein in a ton of wheat bran is 337, in a ton of alfalfa hay 336, and in a ton of clover 144. If these figures be correct, and I see no reason to doubt them, an acre of good alfalfa hay is worth in one year fully as much as four and one-half tons of bran, which at present prices would be almost \$100. Alfalfa has always been one of my principal crops, and although I have not been able to make as high a yield as reported at the college, it was reassuring to notice the relative value of alfalfa hay as a dairy feed.

Poultry and Dairying.

It would not do to stop these notes without some mention of the poultry department of the special car, which J. W. Clark, of Ontario, was in charge. One point I noticed in the exhibit brought home to me very clearly a reason why the dairy farm is the very best place to run poultry as a side line. A card informed me

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