it was then the second week in June, the weather showed no sign of improving, and there was still a large acreage of grain to be sown, after which the corn and roots land had to be attended to. Circumstances such as these must be taken into consideration by the practical farmer.

What Drainage Did.

The next field we came to was in striking contrast to the one we had just passed. It had formerly been one of the wettest fields on the farm, and, therefore, one of the last to be sown. For the same reason it was one of the first that Mr. Allison drained, and it has a complete system of tiles underlying it. I was informed by Mr. Allison that this year it was the first field on the farm to become ready for cultivation. It had all been sown and the grain was beginning to show up nicely. The fine soil, perfectly dry on top and in the best of tilth, was absorbing the heat of the sun, and we knew that just beneath the surface, where the young roots were feeding, the moisture and heat were meeting to provide ideal conditions for growth. We also knew that down further still the drains were working 24 hours a day and seven days in the week, drawing away the surplus water and making seeding operations and growth possible.

It is Mr. Allison's intention to proceed with his drainage programme as fast as the conditions of the soil and the scarcity of labor will permit. Previous to this year, he informed me, the latest corn he had ever sown had been put in the ground on the 12th of June. This year it would be well after that date before he would be able to get the first corn in. In order to avoid a repetition of the unsatisfactory experience which he has had on undrained land in getting this year's crop in, no time will be lost in extending the drainage system to all parts of the farm, for Mr. Allison is firmly convinced that it pays to underdrain.

The Stability of Dairying

E. P. Bradt, B.S.A., Dundas Co., Ont.

THE dairy farmer occupies a rather unique position in the great agricultural industry of our country. He is indispensable to the human race, and the products from his herds are a necessity for the maintenance and upbuilding of the nation. The child requires milk from its birth, in fact, must have it or perish; the invalid often lives for years on it; the aged very often use it almost exclusively; the athlete uses it when in training for some trying experience of physical endurance; in short, it is the greatest of all foods for all people under all conditions. The young, the old; the weak, the strong; the poor, the rich; all these are customers of the producer of milk.

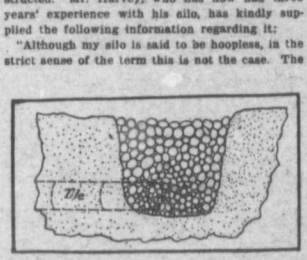
From this we gather the reason of the stability of the dairy industry. Other commodities are unstable, and we find a great rise and fall in the supply and demand for them on the market, depending on times and money conditions. Financial stringencies and periods of tightness of money do not need to worry the dairy farmer. He knows that the commodity he has for sale is one of the necessities of life, and that in periods of hard times it will be the luxuries that the careful housewife will dispense with while the consumption of the dairy products will go on practically the same.

There is no reason for the dairy farmer losing heart in his business. If some of his fellow farmers go out of dairying, all the more reason why he should stay with it.

A Hoopless Silo

ABOUT two years ago a cut showing a hoopless silo, owned by P. J. Harvey, Stanstead, Co., Que., was published in Farm and Dairy. Recently a subscriber living in British Columbia asked for details showing how this silo was constructed. Mr. Harvey, who has now had three years' experience with his silo, has kindly supplied the following information regarding it:

"Although my silo is said to be hoopless, in the strict sense of the term this is not the case. The



Catch Basin for Leading Water From a Low Spot Into Drain.

misconception has probably arisen because the hoops never need tightening, and because they are invisible either from the outside or from the inside.

Making the Hoops.

"The silo is constructed as follows: A circular cement foundation, such as is used for an ordinary stave silo is first built. Two by four studding, placed 18 inches apart, are stood on this foundation, care being taken to keep them about one and one-half inches in from the outside of the foundation. These are firmly braced in position. The hoops are made from half-inch elm boards, four, five and six inches wide, the wider ones being used near the bottom, and the narrower ones further up. To make the first hoop, six-inch boards are bent around the studding close to the foundation and tacked to the uprights. Three thicknesses are put on in this way, making a hoop one and a half inches thick with the joints well broken. Nails are then driven through the hoop and firmly clutched to hold the boards together.

"Another hoop, similar to this one, is placed about two feet further from the foundation and so on to the top, the distance between the hoops being gradually increased until at the top they are four feet apart. When one-third of the way up the five-inch boards are used, and nearer the top the four-inch ones.

Boarding in the Silo.

"When the hoops are in position the outside is covered with good lumber, placed vertically, and firmly nailed to the hoops. A start is then made with the lining. Narrow lumber is nailed vertically between two of the studs. When the first stud is reached it is taken down, for the framework is only required while the silo is under construction. The sheeting is then continued, the studs being removed one by one until the complete round is made on the inside of the hoops.

"When the first ply of sheeting is in place a start is made with the tar paper and the second ply. The paper is tacked in place one strip at a time, this reaching, of course, from top to bottom. The second ply of sheeting is also placed vertically, and is best made of narrow boards. When it is completed the wall of the silo consists of three thicknesses of lumber, one thickness of tar paper and a dead air space of one and a half inches. This prevents the ensilage from freezing.

"I have filled my silo three times since I built it, and the ensilage has kept perfectly. The silo has not budged a hair's breadth since I put it up, and if I were to build another I would build one just like it. If it did happen to blow over it would not be damaged, for it would roll 10 miles without coming apart. It has certainly proved to be entirely satisfactory in every respect."

A cut, showing Mr. Harvey's silo after three years' service, appears on the opposite page.

Feeding Pointers for Dairymen

Henry Glendinning, Ontario Co., Ont.

THE dairy farmer, as a rule, confines himself to one of the well known recognized dairy breeds. It is not necessary that the cows should be registered animals of their respective breeds, but the dairyman should use a pure bred sire of whatever breed he may have chosen to build up a herd.

It is easier and more economical to handle one breed than two or three, as the farmer can concentrate his mind on that one breed and his money in procuring a first class sire. The sire should be descended on both sides from good milkers having a high test in butter fat. Dairymen should, as far as possible, raise their own cows. With the creamery this is easily done, as there is always an abundance of fresh skimmed milk. The young calf should be fed the whole new milk from the mother for a week. After that a little skimmed milk can be added and the skimmed milk gradually increased, so that at the end of three weeks the new milk can be cut off altogether.

It is a good plan to add a little ground flax seed to the skimmed milk to supply the natural fat that has been taken from the milk in the form of cream. In advising ground flax, I wish to impress upon my readers that I do not mean oil cake, as the most of the oil has been taken from the flax in the process of making the oil cake. Oil cake and skimmed milk have a good deal in common in their composition as feedstuffs. With skimmed milk, the green grasses and clovers in the summer and plenty of shade, calf raising becomes an easy matter. For winter feeding substitute the grasses by using alfalfa or clover hay, corn silage and roots. If alfalfa cannot be had, ground oats should take its place.

(Concluded on page 11.)

Prosperity or an Existence? The Reason Why.

The cartoon seen herewith has been published by the North Dakota Agricultural College. In the pasture of the prosperous farmer to the left are cows whose annual profit runs from $20 to $50 a head. Down the road to the butcher shop he is starting the unprofitable cows from his herd. The cows in the pasture to the right are all branded with a question mark. Their owner has both profitable and unprofitable cows, but does not know which is which. Consequently he drives a team while his neighbor rides in an automobile. The moral, as Mr. Chas. F. Whitley would immediately suggest, is "Test your cows."

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