

for many years a breeding stud on the Island of Bressay, in Shetland. The great bulk of the ponies bred there are used in his pits in Durham, but the pick of them have for many years swept all before them in the national showyards. His Lordship has now given up working several of the pits in which these ponies were used, and has therefore abandoned his breeding farm on the Island of Bressay. The whole stud was transported by steamer direct to Seaham Harbour for purposes of sale, and an extraordinary demand was experienced. There were buyers from all quarters, and trade was very lively. These miniature Clydesdales have been greatly improved under the supervision of His Lordship's factor, Mr. Robert Brydon, and some idea of the model nature of these beauties may be inferred from the fact that one of them, named Princess, stands only 34 inches high. One of the mares sold at 125 guineas, another at 80 guineas, and another at 60 guineas. A two-year-old filly made 60 guineas, and a yearling 26 guineas. Stallions made 70 guineas and 50 guineas each. The average price of 167 head was £23 16s. 5d. each. It looks as if it might almost pay better to breed Shetland ponies than horses. At another sale held at Bingham, Aberdeenshire, twenty-nine ponies, reared from an Exmoor foundation, made an average of £39 7s. 2d., and the stallion at the head of the stud, "Sir Christopher," has since been sold privately to the Prince of Wales for 200 guineas. If Scottish stock-breeders are not satisfied these times, they never will be. "SCOTLAND YET."

September 30th, 1899.

FARM.

Harvest the Turnip Crop in Good Time.

The weather conditions in many sections up to the present time point to an early winter, and it is of doubtful advantage to wait till the last moment before taking up the turnips in order to secure a little greater bulk of crop at the risk of a disagreeable "turniping" and loss by heating in the cellar as a result of the roots going together in mucky condition. The 20th of October is, usually speaking, late enough to commence, if one has a considerable acreage under this crop. In any case it is well to have the entire crop together by the end of the month. It is a very disagreeable and slow job digging roots out of snow, or hauling them to the barn when the wagon wheels sink half-way to the hubs in mud; and turnips put together in any other condition than dry or nearly so will surely give trouble in the cellar or pit.

The writer has tried each of the following ways of taking up the crop, viz., hand pulling and topping and tailing with a knife, topping with a hoe and harrowing out the roots, topping with a hoe and digging with the mattock, using a patented turnip harvester that cuts off the top and the roots and lifts them aside, and last of all, topping with a hoe and plowing out by using a share with an extension on the wing in the form of a hooked knife that runs under the roots and cuts them loose, while they are tipped out of their places in the row by two rods which take the place of the moldboard. This last method is the only one we would think of using now, after a thorough trial of each of the forenamed plans, as it is expeditious, clean, and the roots are rowed up, two into one, ready to be picked up into the wagons. The rodded moldboard allows the adhering earth to fall away when the turnips are turned over into the rows, so that in a very short time after they are taken up they are fit to draw. When topping the roots, two rows should be thrown together and allowed to wilt a couple of days before the plow is put to work. The roots should then be thrown into the empty rows, so that they can be rapidly picked up without the interference of the tops.

Root houses are generally located beneath barn floors that can be driven upon, making it easy to unload into different portions of the cellar without their having to be moved again (unless dumped on the floor and thrown over by hand), and where the former is the case, the roots should either be unloaded with a strong wide fork or else run over a screen so as to avoid much earth going in, as even though the roots come in fairly dry and clean, several loads dumped in the same place will carry in considerable soil, which will tend to generate heat. Where all the roots have to pass through side windows, considerable picking back can be saved by extending planks from the windows half-way across the cellar. It is much easier to allow the roots to roll than to throw them back by hand. Turnip harvesting is at best a laborious, unpleasant job, and it is well worth while making an effort to adopt plans that will hasten or lighten it in any way.

When turnips are housed dry and clean, the labor of caring for them is not at an end. The windows and all ventilators should be left open till danger of frost threatens, and even then the openings should be closed gradually, as turnips are more liable to heat than any other sort of roots. Some root houses have ventilated or slatted sides; that is, inch strips are nailed to the walls, and on these slats are nailed two inches apart, so that a free circulation of air can surround the body of roots. Be-

sides this, it is well to have at least one slatted ventilator running through the center of the house from end to end, and the ends of this should connect with the side ventilators. When turnips commence to heat, it is no little job to get them cooled down. It is, therefore, wise to use preventive measures. After the house has been practically closed up, it is a fairly reliable guide to watch the ceiling, which will become moist if heat is generating in any part of the cellar; and should drops of water appear, some ventilation should be admitted at once, as a precautionary measure at this time may save a lot of picking over or loss of roots.

It is not enough to guard against heating, as frost is quite as destructive to the roots, and when they are fed in that condition sickness and abortion are liable to follow, especially with ewes. The walls and ceiling should be made draft proof and covering or banking provided where there is danger of frost getting through, which is most liable to occur as the roots become used out past midwinter, when continued low temperature is liable to occur. A root crop is at best an expensive one and well worth saving when once it has been secured.

Bone Meal as a Fertilizer.

Owing to failing fertility on many farms, information on the value and use of the various standard fertilizers is eagerly sought. To many the use of bone meal is of doubtful advantage, as its action in the soil has been found so slow. It was this impression that led Mr. Wm. Murdock, manager of the London Asylum farm, to enquire into the results of experiments with bone meal on the Guelph Experimental Farm, and in answer to a letter addressed to that institution, the following letter has been received:



CLYDESDALE STALLION, SIR MARENGO (IMP.) (10462).

Won 1st prize at Western Fair, 1899.

THE PROPERTY OF E. R. HOGATE, TORONTO, ONT.

W. Murdock, Esq., London Asylum:

DEAR SIR,—I have been asked to reply to your query regarding bone meal. Bone meal is a very insoluble form of fertilizer; that is to say, the plant food which it contains is very slowly given up to the plants. In nearly all experiments which have been made, the increased yield in crops does not pay for the fertilizer during the first year. It is believed, however, that its influence extends over several years, but it is a difficult matter to determine just how great this influence is.

For five years bone meal has been compared with a number of other fertilizers at the College, with potatoes. I might mention a few results, the figures given in each case being the average of five years. Each year one plot was left without fertilizer, for comparison. Some of the results are as follows:

No fertilizer	121.69 bushels per acre.
Bone meal	132.44 "
Mineral superphosphate	141.61 "
Animal	143.60 "

You will see that the bone-meal plot gave not quite eleven bushels of potatoes per acre more than the plot without any fertilizer, and came about halfway between the no-fertilizer and animal-superphosphate plots.

Taking everything into consideration, the use of bone meal is of doubtful value on good average soil. If used, I would prefer to sow on the surface of the soil in the fall, and then rib the land up as for turnips, allowing it to lie in this form until spring.

G. E. DAY.

H. H. Hume, B. Agri., an associate of the O. A. C. Guelph, has been appointed Botanist and Horticulturist in the Florida College of Agriculture and Mechanical Arts. Mr. Hume was silver medalist at Guelph, and late assistant in Botany and Horticulture at the Iowa Agricultural College, Ames.

Services Appreciated.

At a meeting of the Advisory Board of the Ontario Agricultural College, Guelph, on September 28th, the following resolution was unanimously adopted:

"Moved by Mr. Jeffs and seconded by Mr. Donaldson, that this Advisory Board of the Agricultural College hereby express its appreciation of the work done at the Ontario Experimental Farm by Mr. Wm. Rennie, as farm manager during the past six years, and their pleasure at the marked improvement in all sections of the department under his charge; and wish for himself and his family, on his separation from the farm and college, continued good health and prosperity for many years to come.

(Signed) JOHN I. HOBSON, Chairman.

WM. DONALDSON.

JOHN McMILLAN.

DAVID DOWLING.

EDWARD JEFFS.

G. B. BRYCE."

Protecting Water Pipes from Frost.

To the Editor FARMER'S ADVOCATE:

SIR,—I see in the FARMER'S ADVOCATE of Oct. 2nd a question asked re frostproof covering for water pipe. I laid a one-inch water pipe from well to barn, a distance of 200 feet, seven years ago. I laid it in four-inch tiles (drain tiles). I thought the air space would help keep it from freezing, and the pipe would not rust out as quickly as if it was laid in the earth. I put it down 3 feet, and it has never frozen yet; while two of my neighbors, one on each side of me, put their pipes 3 feet down (they claim), and both of them have had their pipes frozen several times, and, of course, remained so two or three months, which is a great nuisance. My pipe runs into the cattle stables straight from the well at the house, so that by unjointing the pipe at the well we can draw the pipe out into the stable and shove it back again if anything should go wrong with it. The water is pumped by wind power into a large tank over the washing room, which gives it force to the stables, keeping tanks, etc., constantly filled.

Brant Stock Farm.

J. H. JULL.

DAIRY.

Cows Should Have a Holiday --- Continuous Housing in Cold Weather.

To the Editor FARMER'S ADVOCATE:

SIR,—Referring to the question, "How long in each year is it wise to milk a cow?" I would say that every man should use his own judgment. If a cow is in rather low condition, it would be well to dry her off a little early, both for the benefit of her offspring and that she may milk better after coming in fresh. On the other hand, if the cow is in extra high condition, she should be milked well up towards calving to avoid milk fever.

It is poor policy to let a cow dry early and feed her extra well so as to have an extra good cow after she comes in, and take the chance of losing her with milk fever (we lost our two best cows last year from this cause—one in September, the other in February). Our experience has been that, under ordinary conditions, a cow should milk well for ten months of the year. Spend two weeks drying her off and allow her to rest six weeks. Part of that time her teats should be examined, for fear of any sediment gathering in them.

As to whether cows should be kept tied all winter, or if they should be turned out a while every day, our practice for the last thirteen years has been, as soon as the first frosty nights come to tie in our cows at night and turn them out through the day, except a wet or cold day, and as soon as real cold weather comes, say the latter part of November, we do not turn them out again until spring, but have water before them where they can drink at will. Our reason for this is that we should not try how much hardship our cows will stand, but how comfortable we can make them, and, to get the best out of a milch cow, she wants to be kept at a temperature as near 60° Fah. as possible. If a cow is kept at that temperature and fed ensilage and other good food, she will cast her hair in the latter part of December or first part of January; and a cow with her new hair on and in a stall at a temperature of 60° Fah., and fed warm ensilage, is not in a very fit state to be turned out on a cold day. We have kept our cows in for the last thirteen years and have found no bad results; but, on the other hand, find it a great deal less trouble, and believe it is better for the cattle.

JOSEPH YUILL.

Lanark Co., Ont.