

If single boarding were used, 1,200 feet of T. & G. lumber, dressed on one side, at \$20, would cost \$24, or a saving of \$9.80 over the double boarding and tar paper, besides requiring less labor and nails, which would more than pay for the tar required for filling the grooves. If the silo is constructed as a building by itself, the additional expense incurred will be for the outside sheeting and roof. The outside sheeting would cost about the same as for the inside; it may be either single or double, as preferred. The single boarding of T. & G. lumber will be found cheaper and equally satisfactory. Whether single or double, the inside boards must be sound, free from knot-holes and be dressed. Wide lumber is not desirable. It is a good plan to put on the inside boards vertically. If the silo is circular in form, rather less lumber will be required.

The Silo, as Adapted to Manitoba.

BY S. A. BEDFORD, BRANDON EXPERIMENTAL FARM.

Even the most enthusiastic advocates of the silo do not claim that the silo adds anything to the value of green corn, and if it were possible to stack the corn the same as we do our native hay, the advantages of the silo would hardly compensate for the extra work connected with its management. But, owing to the large amount of sweet sap contained even in well-cured corn, it is impossible to stack it as we do hay.

We contend that the use of the silo has the following advantages: It enables us to grow and preserve one of the most productive of all fodder crops. For ensilage purposes the crop can be stored in any kind of weather, enabling us to utilize odd days during wheat harvest.

A silo, properly built, preserves the green corn with nearly all its feeding qualities uninjured. Out ensilage is in the best possible condition for mixing with other fodder. The corn is stored in a very compact form, occupying little space, an important consideration where building is costly.

The building of a silo in connection with a bank barn is a very simple affair; the two constructed on the Brandon Experimental Farm are each 9x9 feet and 22 feet deep, the sills are 6x6, tamarac; on these rest the 2x8 studs, placed perpendicularly, 18 inches apart, capped with a 2x12 plate. On this framework a double thickness of boards are nailed horizontally, both inside and out, and with tar paper between each layer of boards, care being taken that the tar paper is well lapped around the corners. In other words, the silos are two large, air-tight packing boxes, 9 feet square and 22 feet deep.

Well-tramped clay is used for the floor, and appears to answer every purpose. As they are inside the barn, no roof is required.

The probable cost of a silo inside of a bank barn is about \$1 per ton of capacity.

The silos are filled by running the fodder (which, with us, is generally Indian corn) through a cutting box; a carrier attached elevates the cut fodder and drops it in the centre of the silo at the rate of a ton in ten minutes; after each load, this cut fodder is spread over the silo so as to intermix the butts and leaves and insure even settling.

To allow time for settling, the silos are filled on alternate days; the last two feet of the top is filled with cut straw, and when very cold weather sets in, a movable cover of boards, tar paper and chaff is placed loosely over each silo.

Before the silo is half filled, fermentation sets in, and this heat is maintained well into the new year.

The ensilage is ready for feeding in three or four weeks; it is then of a greenish-brown color, and has a decided malty odor and a slightly acid taste; but with ensilage made of immature or un-wilted corn, the odor is disagreeable, strong, and the acidity greatly increased.

The ensilage is fed from the top by means of small doors in the front, which must, of course, be tightly closed before the silo is filled.

All stock readily eat the ensilage, and its effect is somewhat similar to good pasturage, insuring a heavy flow of milk even in midwinter.

The amount fed varies from 15 to 35 lbs. per cow, and is always mixed with a proportion of dry fodder and meal.

In conclusion, we find that ensilage from early ripening corn can be profitably made in this Province, and it is the very thing required to keep the system of our cattle in good shape during the long and sometimes severe winter.

Summer and Fall Fairs of 1894.

Brandon, Man., July 11, 12 and 13.

Portage la Prairie, Man., July 19 and 20.

Winnipeg Industrial, July 23 to 28.

Pilot Mound, Man., Oct. 2 and 3.

Shoal Lake, Oct. 3.

Springfield, Man., Oct. 3 and 4.

Souris, Man., Oct. 3 and 4.

Gartmore, Man., Oct. 4.

Manitou, Man., Oct. 4 and 5.

Minnedosa, Man., Oct. 5.

Neepawa, Oct. 10 and 11.

Calgary, July 16 to 19.

Secretaries are requested to send in dates of fairs to the FARMER'S ADVOCATE.

Our Scottish Letter.

Since I last wrote, Mr. Gardner, the Minister of Agriculture, has given his verdict on the opening of the ports to Canadian cattle. He says: "No; but if I am satisfied, by an examination of lungs for some little time further, that there is no risk of disease from Canada, then the ports will be opened in the end of July." This reply, which is not in the words actually used by Mr. Gardner, has been variously interpreted. To the great body of farmers in Great Britain and Ireland, it has given satisfaction; but it has by no means pleased the minority in the north-east of Scotland and Norfolk, whose experience with Canadians led them to form a high opinion of their merits as feeders. No doubt the lot of the feeder in this country is at present not a happy one. The gradual increase in the number of foreign stores, imported up to the date of the outbreak of pleuro-pneumonia, caused many in this country to cease breeding cattle, or to breed them in less numbers than formerly, and the quantity of dead meat which is coming in is lowering the feeder's revenue, so that he is between two fires. Stores are rising in price, and fat are tumbling, with the result that he is unable to see how ends are to be made to meet. But even at current prices, farmers are not obtaining remuneration for their home-bred cattle, and consequently there may soon be another cry than that which we have heard. Altogether, the situation is difficult, and the future will inevitably see changes of one kind or other. Meantime the question simply is, whether the minority of cattle feeders, who clamor for the opening of the ports, are to dictate the National Policy against the interests of the overwhelming majority of their countrymen who take another view? It is hardly right that such should be the case.

We are now in the height of the Ayr and Glasgow show season. It is in the west of Scotland that cattle shows are seen to the best advantage, and there is a general feeling that we have too many of them. At Ayr, Maryhill and Glasgow three great shows have been held within a fortnight. The first is the favorite meeting place for Ayrshire cattle, the second is an intermediate kind of gathering, at which a good show of horses can generally be seen, and the third is the great Clydesdale show of the season. In regard to Ayrshires, some have long been fighting against the fancy ideas which prevail in their judging, and it is a gratifying feature that at last there appears to be some hope of getting the great dairy breed judged with an eye to the production of milk. It is a great misfortune when a useful breed is made the sport of a fancy, and this too long was the fate of Ayrshire cattle. If one thing should have been more strenuously resisted than another, it was the abuse of the milking powers of a dairy breed. All that judges looked at, for a number of years, was a tight, long, shallow vessel, and a short thin teat. If a cow had these she could win a prize, although they are the very points which dairymaids detest. It would almost seem as if a form of insanity had taken possession of breeders and judges, when animals with such properties were preferred to place and prize. Now, as I have said, the tide has turned, and dairy purposes are not forgotten when Ayrshires are being judged. Some grand, milky-looking stock were shown at Ayr by Mr. Alexander Cross, of Knockdon; Mr. Abram Kerr, Castlehill, Durrissdeer; Mr. Hugh Drummond, Craighead, Mauchline, and Mr. Robert Montgomerie, Lessnessock, Ochiltree. Sir Mark J. Stewart, Bart., has a grand milking herd at Southwick, Dumfries, and Mr. William Hunter, Fulton Mains, Prestwick, has Ayrshires which proved victorious in the milking test at the recent show.

Clydesdales, at Glasgow, were one of the grandest exhibitions of the breed seen for many years. The family group prize for the best five yearlings after one sire was won by the well-known veteran, Macgregor 1487, now the oldest Clydesdale breeding horse of repute. No other horse has so often won in these competitions as Mr. Andrew Montgomery's old champion. His daughter, Royal Rose, bred by Mr. And. Montgomery, and owned by Mr. Wm. Graham, of Edengrove, Penrith, won the cup as the best mare under four years old. Mr. James Lochart showed his splendid Darnley mare, Pandora, and won easily in a strong class of brood mares. She is out of an English dam, and is, perhaps, the best animal ever produced by the cross of a Clydesdale sire on a Shire dam. In the yield mare class, Mr. John Gilmour, of Montrave, won with the Ayr champion mare, Montrave Maud, the daughter of Prince of Wales 673, and the world-famed Moss Rose. It was unfortunate that there was no competition between Pandora and Montrave Maud for a special premium—none being offered. Pandora's son, Mains of Airies, stood second to Macgregor in the family competition, and Mr. Wm. Renwick's Prince Alexander 8899, won for the group of five two-year-olds, with five out of seven foals left by him when a two-year-old colt. The championship for the best male Clydesdale was won by Mr. William Clark's two-year-old colt, Royal Garty, which has not yet been beaten in his class, and looks well. He beat Prince of Millfield. Mr. Walter S. Park won the special for mare with two of her progeny, with the nice mare, Hatton Beauty, and her son, Prince of Erskine, and daughter, a two-year-old filly by Prince Alexander.

SCOTLAND YET.

Early Maturity.

BY JOHN A. ROSS, BUTTERFIELD, MAN.

In these hard times everyone is endeavoring to reduce the cost of production in all branches of farming to the lowest possible limits. In the breeding and feeding of live stock there is no doubt that one of the best ways to reach this end is to breed and feed our stock so as to develop early maturing tendencies in them as much as possible. No one will deny that it would be throwing away all chance of profit, if cattle were fed at the present time till they were six or seven years old, and sheep and swine as long, in proportion, before they were ready for the butcher; yet in the beginning of this century that was the common practice, and our forefathers would have been lost in astonishment to have seen steers turned off fat at two years old, and pigs at six or seven months. There is no doubt but that there is still great room for improvement in this respect among the common farm stock of this country. Not only does a farmer, who feeds his stock for a year longer than his neighbor, practically lose the amount of food fed during that year, but it is also now a well-known fact that the youngest meat is the cheapest to produce. How can an ordinary farmer so handle his stock as to encourage this characteristic in them? First, a pure-bred male should always be used; such have, to a great extent, this characteristic developed in them; but as there are great differences, even among pure breeds, one from a family already noted for this quality should be chosen, if possible. And here let me say that a good male, having once been procured, and having proved himself valuable, should not be lightly discarded, even if his retention might entail some in-breeding. It is to the interest of breeders of pure-bred stock to advocate the changing of males as much as possible, as it brings grit to their mill. There is no doubt that in-breeding has its uses as well as its abuses. For example: in-breeding between two thoroughly good animals will be more certain to produce an animal having most of the good points of its parents than the mating of unrelated animals will, and there is no doubt that an in-bred animal is much more potent and able to stamp his good qualities (as well as his bad ones) on his offspring. The chief thing in in-breeding is to be careful to only breed the best to the best, and so perpetuate the survival of the fittest only, which nature, in her own way, is continually doing with all wild animals, with no bad results. I am quite aware that in advocating in-breeding I am treading on dangerous ground, and, as it is a subject large enough in itself for a separate article, I will leave it for the present, and will only remark that so long as the constitutions of the animals are unimpaired, judicious in-breeding is of great use in securing the desirable qualities of early maturity, quality and aptitude to fatten in live stock; then early maturity may be encouraged through early breeding. There is no doubt that the noted Short-horn breeders of Aberdeenshire have, to a great extent, earned the name for utility which their stock possess, by having them calve at two years old instead of three, as is often practiced. Anyone who has seen their stock can have no fault to find in regard to size. Even if size were sacrificed to a certain extent it would be a small loss compared to the gain, as early maturity and quality are of much more value than quantity in the markets of the world to-day. An animal bred early is likely to turn out both a better milker and surer breeder than if left until fully grown. The great thing to be always kept in view is utility. The offspring of these early-bred animals will have a natural tendency developed to breed and mature early, and nature will, by this means, along with judicious and careful feeding, be encouraged to do her utmost in the shortest possible time. Of course, there is a limit to this; if carried too far it would be almost certain to result in a weakened constitution. The successful breeder is the one that can so handle his animals so as to get the greatest development in the shortest possible time, which can only be accomplished with animals of a strong and healthy constitution, and all that that implies. Of course only the best and most rapid growers and feeders should be kept for breeding purposes. The most inexperienced breeder can easily recognise such animals by their wealth of glossy hair and mellow "touch," as these are but the outward signs of their vigorous constitutions and sound digestive organs.

At the World's Fair.

Japan—The great advance which was made in all the Eastern Countries, in the arts and sciences, is illustrated in the apiary by the following:—"A small but interesting exhibit was made by Japan. One of the simplest native hives, built in sections, placed one above the other to the number of six, was shown. While not presenting any feature that could be advantageously adopted here, it is of special interest to American bee-keepers, because it is constructed on the principle of the shallow, horizontally-divided section hive, and, being one of the oldest Japanese hives, antedates by a few centuries the patent granted by our Government on this feature in bee-hives."