

out of 400,000 cases the test was accurate to the extent of 98.8 per cent. The remaining 1.2 per cent. is responsible for considerable dissatisfaction both in Canada and the United States regarding the reliability of the tuberculin test. Whether this be the fault of the test, of the way it is administered, or a lack of honesty on the part of the veterinarians we are unable to say, summing up the total evidence in the matter we believe that the tuberculin test has not accomplished what it was heralded to do. It has done considerable, for in most cases the test is accurate, but there are cases where a lesion may exist in the animal body which may be thoroughly healed, and which will never enlarge or cause further trouble. This will cause a reaction, and in cases where extreme measures are taken the destruction of the animal. It is claimed that a large percentage of the human race have tubercular lesions in their body, and animals probably have as many or more. The State of Illinois has probably spent more money by way of investigation than any other like area on the North American continent. Their legislative body considers the tuberculin test as unreliable, and their tested stock is not looked upon with favor by purchasers from other States or other countries.

Until we have something better, the tuberculin test will have to be used, for no one will deny but what it has done an immense amount of good in isolating infected animals, and sparing many good ones that would have been infected with the disease.

THE FARM.

A Turnip-growing Competition.

An interesting contest has just been brought to a close in Nova Scotia, being a turnip-growing competition for farmers' boys. It may seem that turnips are rather an odd crop in which to put on a competition, but in reporting the results one of the high agricultural authorities of that section made the statement, "that if we could get the farmers of Nova Scotia really into turnip growing and the accompanying cattle and sheep raising, we could double the wealth of the province." Turnips are a far more important crop than many seem to think, however, it is not so much a matter of crop as it is of getting farm boys interested in the work of increasing production on their own farms.

The competition was carried on in three separate counties, namely Colchester, Pictou and Cumberland, prizes being first, \$75; second, \$50; third, \$30; fourth, \$20. Any boy over fifteen and under twenty years of age and whose guardian has property not to exceed \$3,000 in assessment was eligible for entry, the amount of land in each case being one acre. The winners of the money had an option in using it, but they must use it either in the pursuit of an agricultural education, for purchasing improved live stock, under-drainage or otherwise improving the farm, or in any other such manner as may be agreed upon by the committee in charge. This latter is a very good feature of the competition. Many boys capable of growing a good field of roots are not so well equipped to spend money to the best advantage. Any of the three outlets for the money, which are definitely mentioned, would meet with the approval of any progressive farmer and tend to uplift agriculture generally.

The Nova Scotia Department of Agriculture added \$5 to each of the boys who cultivated fields that were almost equal to the four prize winners. This year fifteen boys entered the contest in Colchester county, five in Cumberland and ten in Pictou. It was not a good turnip year in Nova Scotia, yet the average yield per acre on all the plots in the competition was 1,009 bushels, and the average yield on the prize-winning fields was 1,229 bushels. As a comparison with these figures we may state that the Canada Year book for 1913 gives the average yield per acre for all Canada as only a little over 503 bushels per acre, and the Provincial Crop Report gives the average yield for Nova Scotia as 604 bushels. Down in Nova Scotia they figure the value of turnips as at least 10 cents per bushel, which left the value of the product of the average plot in this competition at \$100.90 per acre, and of the best plots at \$122.90 per acre, in comparison with \$50.30 of all Canada, and \$60.40 for all Nova Scotia.

These figures should bring home to readers the real opportunity which they face yearly of improving their plots. The highest yield of all was 1,317 bushels on an acre cultivated by Frank Crowe, of Colchester County, but he only won second prize in his county, as his turnips were a little too large, due to an excessive application of barnyard manure. The winning plot in this county and grown by Frank Jennings was fertilized with a moderate amount of barnyard manure supplemented by commercial fertilizer. One of the boys cultivated his crop three times after his neighbors said he was ruining it, but this late cultivation in the dry season made the

crop. The contest was a great success this year, and next year plans are being laid to carry it on again. We may say that the money for the first contest was donated by a Nova Scotian who lives in New York. Those interested in the competition are desirous that other men wishing to do something for the public good would put forward sufficient money to carry on like competitions in other counties. Competitions of this kind might well spread to all the provinces, and to other crops as well as roots.

Farm Harness and Its Care.

Editor "The Farmer's Advocate":

The harness for the farm team deserves much thought. It should be sufficiently heavy for the work to be done. A lighter harness may work well for a time, but as soon as it begins to get old and worn it becomes a bill of expense. It never pays to buy a low-grade harness, even if its first cost is small. The harness I like best for general farm use is all leather. I have used chain-traces, but do not like it nearly so well as harness with full length leather tugs. Chain traces are often imperfectly welded, and the defect cannot be seen until they break, which is usually at the most critical time, causing vexatious delays. They are also likely to wear the hair from the horse along the body, and the hind legs when turning. The leather tug will not rub the horse at any point, is alike in strength from end to end, and is dependable in a hard pull. As to breeching, I prefer the knit sort that passes over the hips, under the crupper, down under the body where it unites into one strap that fastens the breast-yoke.

A good collar is the principle part of any work harness. It pays in the end to buy only the best. Be certain above all else that it properly fits the particular horse on which it is used. It should fit snugly from top to bottom, but with room enough at the bottom for the

frozen mud have a very injurious effect on harness, and in a lesser degree so does dust. The custom of hanging the harness on hooks or stakes in the stable is a very bad one, and when followed causes it to deteriorate rapidly. If a proper place to keep it is provided it is not necessary to clean a harness thoroughly every time it is used, but it will last for a much longer period if after being removed from the horse the dirt is removed with a good stiff brush. If it has become muddy or badly soiled with sweat it should first be brushed and then sponged off until the surface is free from dirt, after which it may be rubbed with a cloth which has been moistened by a little neatsfoot oil.

For the good of the harness I give it a general cleaning and oiling about once in three months. To do this all the straps are unbuckled and laid out straight on a table. All the parts are well brushed to remove all the dirt that will come off without washing, and care is taken to see that no dirt is left around the stitching. If the stitching is broken or any repairs are found to be necessary, I attend to them before going further in the process of cleaning. When the harness has been thoroughly cleaned with the brush I wash all the plain leather straps in tepid water, which is well charged with good harness soap. Then I rinse in cold water, wipe off with a woollen cloth and hang all the parts up separately to surface dry.

In washing, the straps are not allowed to remain in the water longer than is absolutely necessary, as it will injure the stitching and open the edges when the leather has been doubled. I do not put all the leather in the water at once. One piece is washed and dried and then another taken. Patent and enameled leather is not put into the water, but is simply rubbed well with a cloth moistened in tepid water.

To do a particularly good job of oiling, one that will last for three months under the most trying conditions, I lay out each strap on a

board as soon as the surface has become dry and apply a liberal coating of neatsfoot oil. Next apply a coat of beef tallow, thin enough to go on with a stiff brush, then lay all the straps out on a board and allow them to dry thoroughly, twenty-four hours not being too long.

If there are any red spots visible, or if I wish to black the harness, I do so as soon as it has become dry. For red spots I touch with some vinegar black. To black it throughout I use a good harness black. When thoroughly dry I remove with a rag whatever surface grease may be apparent, and give it a nice polish by rubbing well with an old piece of silk. Before buckling the straps I apply with a spring-bottom oil can a little

castor oil around the buckles, rings, etc., and on the bolts and base of mountings. A very little oil applied at these points will prevent rust and keep the leather from becoming hard. If the harness is oiled and cleaned as I have above mentioned, and made the general practice once in three months it will stop one of the common leaks on the farm.

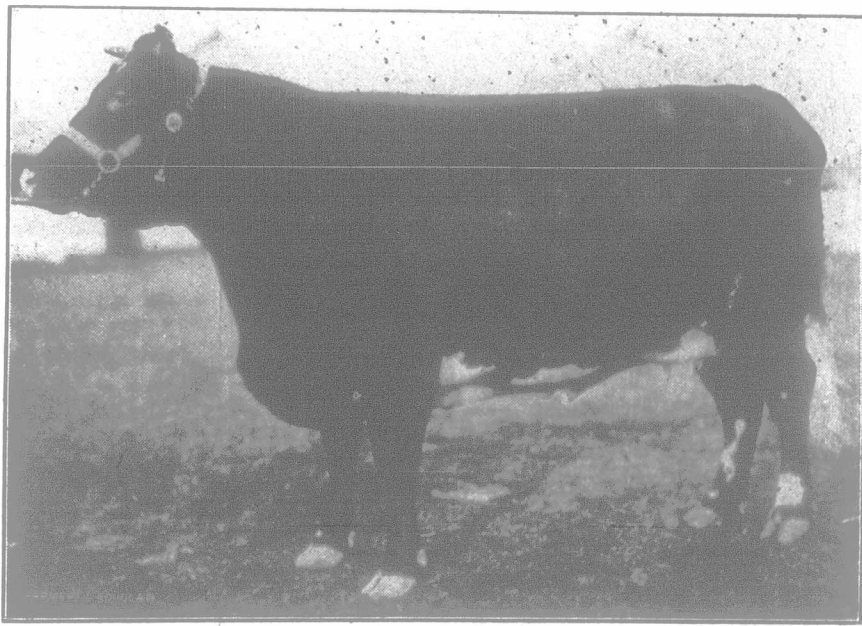
Johnson Co., Ill. W. H. UNDERWOOD

Cost of Building a Double-inch Silo.

Editor "The Farmer's Advocate":

Many of your readers are doubtless contemplating silo building next year, and first of all are counting the cost. It may not be out of place, therefore, to lay before them the detailed cost of building a double-inch silo, as described by the writer in your columns last spring. This type of silo by the way seems to be steadily increasing in favor in this section, commending itself to the average farmer by its comparative cheapness, the ease and speed with which the necessary material may be procured and put together, and lastly by its great solidity as compared with the type of silo requiring iron rod hoops.

We now have men who make the building of this silo a business, and it is advisable if possible to engage such a man, for, as one of them recently remarked to the writer, "Every silo I build I learn something that helps me to make a better job of the next one." It is a fairly nice trick to get the hoops exactly level and evenly spaced, as well as to have the sides perfectly



Jealousy 4th.

Senior champion female Shorthorn at the Canadian National Exhibition, Toronto, 1914. Exhibited by J. A. Watt, Elora, Ont.

whole hand to pass handily, and with room enough at the sides to admit the fingers passing between. A collar too short must not be used, for it will choke the horse and likely cause serious injury. The harness should fit tight in the grooves in the collar from top to bottom, and be of the same size as the collar. A 17-inch hame on a 20-inch collar would not give satisfaction, as the point of draft would not be right, thereby destroying the efficiency of the collar.

I always use open bridles, that is, those without blinds. Blinds greatly annoy a horse, and never make him safer or more tractable. On the other hand, I am firmly convinced that they have a tendency to make an otherwise gentle horse more vicious and unmanageable, because they prevent his seeing anything coming from the rear. His ability to hear the noise only adds to his fears, making him more anxious to escape from what he cannot understand. The more nervous and high spirited a horse is, the more necessary it is that he be allowed full use of his sight, and be able to see everything clearly.

As a general thing in farm management the harness does not last as long as it should, a fact that is due to a considerable extent to lack of care. This lack of care is one of the places in the business of farming where there is oftentimes a leak that we could easily prevent without much outlay of money or labor. Harness is rather costly, and we should keep it in serviceable condition as long as possible.

In my barn I have a harness room sufficiently large so that the harness can be hung up in various parts, thus in case it becomes wet while in use it will the more readily dry. Water and