

vation should cease as soon as the beans are out in flower. A very suitable implement for bean cultivation is the two-horse corn cultivator.

### Sweet Clover Ahead of Alfalfa.

Editor "The Farmer's Advocate."

I noticed in your issue of April 3rd, the Editor in his answer to D. C. re sweet clover says that he is not much enamored of sweet clover as a crop, except as a means of soil improvement. Our experience teaches us that when domestic animals get accustomed to it they prefer it to anything else. For instance, last spring we sowed 25 acres of it, and four and a half acres of it was sown on fall wheat, in March, when the snow was four feet deep in some of the low places in the field. One of our neighbors said it would never grow, but when we cut the wheat in the fall it was 23 inches high, and as soon as the wheat was off we turned in five horses and two milk cows. The horses stayed in that field until the middle of December, and the cows stayed there until the middle of November and got nothing but sweet clover, and they did not get it all eaten down. Yes! animals that are accustomed to it prefer it to anything else. We have had to find out by experience what sweet clover will do, and we can tell the editor that any farmer who has a poor farm and will grow a lot of sweet clover, and keep a good flock of sheep, will with ordinary management have a rich farm and be a rich man himself. Sweet clover will always be found doing good work for the farmer, in fact very much better than alfalfa, although the latter will do very much better after the land has been thoroughly inoculated with bacteria, which sweet clover invariably imparts to the soil. Alfalfa will be a long time before it becomes popular with the general farmer; as a rule stock will eat it too close in the fall and it cannot bear this; it must have considerable growth left on in the fall, which serves as a mulch, or it must be mulched with manure, or something to hold the snow in this latitude. Thirty-five years with it should give a person some experience, and mine is that on nice, mellow, loamy soil it does not last. I have another clover that I have never seen mentioned nor have I ever seen it growing anywhere, except a few plants in my garden. If I do not forget it, a little later in the season I will send a sample of it to the Editor of "The Farmer's Advocate." Perhaps he can tell us something about it, perhaps it may turn out as much ahead of sweet clover as sweet clover is ahead of alfalfa.

York Co., Ont.

Wm. LINTON.

### A Post Hole Digger.

Editor "The Farmer's Advocate."

I noticed in your issue of April 3rd, an inquiry about a machine to dig post holes. I find a tool called the "digger," the most satisfactory of any I have ever used. It has two iron handles about five feet long with a spoon on the end of each, similar to a round-mouthed shovel, one stationary and the other on a hinge.

It is worked by putting the handles together and letting it drop in the ground, then spread them and the one spoon turns under the soil and lifts it out. The kind I use can be had at most hardware stores at a cost of about \$2. I might say that if the inquirer has to buy posts I think it is cheaper to use iron posts when labor is so scarce as all it requires is a sledge-hammer to drive them in after the wire is stretched. They cost from 28 to 34c. according to the number of wires used.

York Co., Ont.

J. R.

[Note.—As we understand the enquiry referred to a machine for digging post holes was what was wanted, not an ordinary digging tool, but something doing away with hand labor.—Editor.]

## THE DAIRY.

Twenty-five students were enrolled for the official cow-testing course at the O. A. C., March 31st. to April 5th., being required to do practical work in weighing and sampling of milk and testing samples for fat, keeping all records as for an official test. Lectures on the different tests were given and the five short rules were given:

- 1.—Do not feed a cow too heavily during the test—rather less meal than usual is preferable to increasing the meal ration.
- 2.—Feed all the roughage which a cow will eat, and from 8 to 24 lbs. of meal daily of the 2:2:1 combination of wheat bran, ground oats and oil cake, cottonseed meal, gluten or malt sprouts, or a mixture of two or more of these latter feeds.
- 3.—Feed as many times per day as the cow is milked.
- 4.—Feed 1 lb. of meal for 3 to 5 lbs. of milk produced; or 6 to 8 lbs. meal for each pound of milk fat.
- 5.—The German standard of 32 lbs. of dry matter, 3.3 lbs. digestible protein, and 15 lbs. of digestible carbohydrates and fat, with a nutritive ration of 1:4.5 was advised as a guide or feeding standard.

Seventeen of the twenty-five students passed both practical and written examinations.

### The Cow and the Manure Question.

Editor "The Farmer's Advocate."

In "The Farmer's Advocate" of April 3rd., among the good articles I see a few which came under my notice more particularly. The first was on the cow question. You struck the nail on the head in the first round when you said, think of the farmer's wives and daughters working to keep thirty or forty cows to get the results possible from ten or fifteen! While they are not all doing this, there are too many who are simply working to no purpose, feeding a lot of scrub stuff all poorly fed. I was in a stable a few days ago. It made me sick to see what might have been good cows if properly fed. They were just able to crawl around. Think of a farmer expecting to make money out of

cows in such a condition. The best is none too good for cows. I find that good cows well-bred pay big returns.

In the second place I see an article "Does the Manure Spreader Pay?" by J. E. Mac. I have used a spreader for four or five years, and I spread about 100 to 125 loads of manure each year. As to yearly expenses, I have had about six links for the drive chain, in all about sixty cents in all that time. Now as to hauling out manure in the winter, I have seen on some farms this winter where the manure might as well have been put into the river. At every rain the ditches were filled with the liquid from the same. Every farmer has his own way of doing things. I apply my manure after harvest with a spreader either on meadows or on fall grain, and I notice when crops on neighboring farms are looking over the fence, I am not ashamed of mine. I find it pays to do all possible work with machinery that can be done on the farm. Then I notice there is enough left to tire out the ordinary farmer. For my part I will not do anything by hand that can be done with the horse.

Leeds Co., Ont.

D. F. ARMSTRONG.

### Dairy School Short Course at O. A. C.

Editor "The Farmer's Advocate."

The Short Courses in connection with the Dairy School of the O. A. C., were very well attended. Two new courses of one week each were added to the regular twelve-weeks' course, and the one-week Instructors' Course. The new courses were for Cow-testing and Ice-cream manufacture. The attendance by courses was 44 in the regular twelve-weeks' course, 23 for Cow-testing, 19 for Ice-cream, 8 for Western Ontario Instructors, including W. A. McKay, of Truro, Nova Scotia, Dairy Instructor and Inspector for that Province. Instructors Robertson and Smith were prevented through illness, from taking the Instructors' Course. The total registration in the dairy courses was 99, which does not include the ladies from Macdonald Institute who took dairy work during the term.

The most popular courses were those for Cow-testing and Ice-cream Making. A number of students in these classes had previously taken one or more short courses in dairying. There is a growing interest in the question of testing cows. The object in having all official testers connected with the Provincial Department of Agriculture, come to the O. A. College, is to give these persons the latest information on cow-testing, and to have them all working on uniform lines.

Breeders and purchasers of high-class dairy stock are paying their money for animals because of their records, or ability to perform. The O. A. College stands back of every official 7-day, 14-day and 30-day record, and it is important that these tests shall be above reproach. The men who are having the tests made, and who pay the official testers, are as anxious as we are that these tests shall be made in the most accurate and scientific manner possible. We have had several letters from prominent breeders commending the idea of a Short Course for official testers.

For interest and enthusiasm the Ice-cream Class was a leader. During the week, nine different kinds of ice cream were made, besides several kinds of sherbets. One-half day was given to the testing of ice cream for fat. Many manufacturers are apparently unaware that plain ice cream must contain at least 14% fat, and fancy ice cream not less than 12%.

The course recently finished is the twenty-first class in dairying at the O. A. C. Courses have been held every year since and including 1893. The Dairy School is now of age, and the interest has been well maintained throughout the twenty-one years of its existence. The emphasis has changed from time to time and new branches of dairy work have been taken up as occasion has demanded, but during all the years the object of the management has been to combine a practical and theoretical course as complete as possible in the limited time allotted. In the neighborhood of 1,500 students have at various times attended these Short Courses in dairying. Ex-students are found occupying prominent positions in nearly all the dairy countries of the world.

To all our ex-students and past instructors, whatever they may be, we, of the present Dairy School Staff, extend greetings at this time on the completion of the twenty-first Short Course in dairying at the O. A. College, Guelph.

The following are the proficiency lists for the classes of 1913 with standing. Factory class (maximum 1,280.)—1, McKinney, T. J., Bervie, Ont., 930; 2, Viveash, J., Newark, Ont., 919; 3, Overland, F., Hillsburg, Ont., 908; 4, McNevin, H., Reaboro, Ont., 893; 5, Glass, F. M., Emerald, Ont., 884; 6, Kristensen, J., Halleybury, Ont., 876; 7, Parker, A. C., Tavi-



Doing Good Work.

Not all the plowing was done last fall. Nothing beats the single, walking plow for doing especially high-class plowing, but the two-furrowed plow saves a man and does very good work where properly managed. Labor-saving is important.