## $80 43½ a Year Per Cow.

Editor "The Farmer's Advocate":

In reply to your letter asking for a few notes in regard to feeding and handling my herd which was entered in the competition for the medal given through the Western Dairymen's Association, I will confine myself to answering your questions, as writing anything for publication is something new in my experience.

My herd consists of nine Holstein grades. Average pounds of milk per cow in the seven months, 5,886½; average returns per cow, $56.93; number of cows in competition, 9.

In regard to summer feeding, having had a good supply of showers, we had fairly good pasture all summer. During a short drouth in June I fed about five or six hundred pounds of bran, and from the beginning of September until the cows were stabled about one-half acre of corn, and a few mangels during October. I also have a small patch of alfalfa, which, after the first cut being cured for hay, freshens rapidly and affords some good feed. I think any dairy farmer might grow four or five acres of this to advantage.

For winter feed, I have been using roots, hay (mostly clover), straw and corn (long or cut, according to convenience), and a grain allowance of two gallons per day per cow while milking, grain consisting of one-third oats, one-third peas and barley, and one-third bran. This season I have ensilage, of which I feed about 30 pounds per day along with the usual feeding, only making the grain allowance one-half bran.

As to the factors to which I attribute the good work of the herd, I might say to anyone wishing to make a success of dairying, first of all get a dairy breed of cows; feed well; milk regularly, as quickly and in as cleanly a manner as possible (the cream comes last), and you will have a goodly measure of success.

My cows were not in very good shape to compete in the seven months' trial beginning April 1st, as three of them freshened in December, 1905, two in January, 1906, one in February, one in March, one in June, and one farrow cow. Had the trial included a whole year, I might have made a better showing, my returns for the year being $723.92, or an average of $80.43½ per cow.

WM. BELL.

South Perth, Ont.

## Remedy for Slow Churning.

Editor "The Farmer's Advocate":

As I have seen a number of articles in your valuable paper about people having trouble in churning (i.e., that the butter would not come), and as it is a very simple trouble to overcome, if you only know how, I will send my remedy, which has never failed us. Take the cream as soon as separated and set in a kettle of hot water until the temperature reaches 120 degrees, then set in cold water until cold. Before mixing the cream, the nearer freezing you keep the cream the better, but be sure it don't freeze, as that spoils the texture of the butter. The day before churning raise the temperature to about 80 degrees, then add enough sour milk to ripen it for churning in the morning (I add the starter about 3 p.m.), and churn at about 63 or 64 degrees—not higher—and we always have our butter come in from 15 to 30 minutes in fine shape. Hoping this will help someone. "A FARMER'S WIFE."

Brome Co., Que.

# POULTRY.

## Prof. Graham's Cornfield Chickens.

Editor "The Farmer's Advocate":

Certainly there is much food for thought regarding the great growth of those chickens Prof. Graham raised last summer in his cornfield, but we must not think for a moment that any considerable number of our poultry-keepers and farmers can adopt this method of raising chickens. Not one out of possibly twenty-five poultry-raisers are blessed with cornfields, and of those who have one, not very many would dare to leave the chicks so far from the buildings. There are so many enemies to the little fellows, such as skunks, weasels, foxes, etc. Besides, not a few night prowlers who would like nothing better than the privilege of carrying home some nice plump broilers to the family. These enemies are sufficient to keep the majority of people from engaging in this plan. But it behooves us to study the situation from all sides, and there is, to my mind, a good lesson in this experiment to all. Those who cannot adopt the plan, can make use of the ideas which present themselves.

We all deplore the fact that it is so difficult to get the later chicks to thrive. But is it simply because the ground has been run over? I think not, especially where there is no disease of a contagious nature in the older birds. I have had this same trouble, and I attribute it to several causes, any of which will have a detrimental effect, and when all are combined there is sufficient cause for the stunted condition of the later hatches. Now, one condition is that the older birds cover the ground more quickly and procure most of the bugs and worms. The little chaps get some, but not their share. Perhaps the grit has been picked over and there is not plenty of the favorable kinds. Then, the crowding at feeding time. The little fellows scramble for their share, but they can only get a small amount, unless the larger ones are vastly overfed. When fed dry mash and grains from hoppers, and the feed constantly before the birds, it might be thought all will get fair play, but generally the small ones are driven back so often they are discouraged. Then, the season is warmer, and the larger chickens often crowd into the coops with the small ones, and they overheat and cramp them. Also, if vermin is present (as it generally is), it is always more so as the season advances, and the younger birds naturally fall an easy prey. This weakens vitality, and growth cannot be normal. By the time the later hatches come the older ones are getting more hard grains, and the little fellows feeding freely on these are sure to become affected. Now, with no animal food, lack of grit, superabundance of vermin, overheating, crowding at meal time, being robbed of their full share, with a dose of indigestion from an oversupply of hard grain during youngest days, is it any wonder that the late hatches do not grow well on the same ground with the older brothers? If the older birds were all removed, so that the late hatch have free use of the old ground, we would see that they would do all right.

Now, of all the troubles enumerated, it would appear to me that the lack of a plentiful supply of insects is the chief one. There is no place, perhaps, equal to a cornfield for snails, crickets, and such; a bush or orchard is good. Likewise, there is nothing will promote growth in young fowl equal to animal food of some sort.

Then, let us take heart who are not so situated as to have the use of new-plowed ground upon which to run the chicks. If we supply plenty of animal food we can overcome a lot of the trouble which most of us experience in the later hatches not keeping pace with the older ones. On the whole, I vote the experiment a valuable one.

J. R. H.

Wentworth Co., Ont.

## Wrinkles' Chickens Hatched in Usual Time.

Editor "The Farmer's Advocate":

I am glad my March chickens in "The Farmer's Advocate" of December 20th amused one of your readers. I certainly did make a glaring mistake, which I am glad to be able to correct. In referring to my notebook, I see I set my incubator on February 21st, tested the eggs on the 3rd of March, taking out eleven infertile eggs. The rest of my article is quite correct. It is not the first time I have trusted a hen with seventy or eighty chickens, and I always found the hen rose to the occasion and did her very best for them. I have two good brooders, but prefer putting the responsibility of keeping the chickens warm on a hen, and I find the hen will scratch for them, which I have not time to do. I should have been much more interested in our Missiquoi friend's letter if he had told us exactly how he proceeded when hatching duck eggs. Does he use any moisture? Hoping, Mr. Editor, you will kindly give the above correction space in the poultry columns. "WRINKLES."

# GARDEN & ORCHARD.

## Sooty Fungus of the Apple.

In reply to a letter of inquiry, accompanying an apple infested with dark, circular blotches of a sooty appearance, the following letter has been received from the Entomological Department of the Ontario Agricultural College:

This fungus, Dothidea pomigena, commonly called Sooty Fungus, is characterized by dark-colored circular blotches on the fruit. The blotches are pale at first, but later become sooty-black and exhibit, under a lens, a radiating structure. Individual blotches measure from a quarter to a half to an inch in diameter, but in many cases they coalesce, covering the surface of the apple with a sooty coating. This fungous growth seems to attack the fruit late in the season and to be strictly confined to the surface, from which it can be easily rubbed. It does not, therefore, produce any deep-seated injury, nor does it seem to check the growth of the fruit, but it is most unsightly, and in bad cases may, for this reason, render the fruit practically unmarketable. The superficial habit of this fungus is an indication that it can be readily controlled by the use of fungicides. Spraying with Bordeaux mixture has given excellent results. Windfalls and infested fruit remaining on the trees at harvest time should be gathered and destroyed.

## Sooty or Fly-speck Fungus

*(Leptothyrium pomi).*

Editor "The Farmer's Advocate":

The apple sent for examination is affected with the Sooty or Fly-speck fungus. This disease was much more troublesome than usual this year, and disfigured much fruit. It generally occurs in low-lying orchards, where the air is moister, and is usually worst in damp seasons. This disease has been more or less troublesome in the New England States, it being particularly bad in 1896. In 1902 it caused considerable injury in Ontario, and in the annual report of the Central Experimental Farm for that year the writer gives a description of it and recommendations are made for its treatment. The disease is a low form of fungus, and is apparent as sooty or black, roundish patches on the apple, not unlike splashes of ink or soot. These patches often run together and affect a large area of the surface, and make the fruit very unsightly. On these patches are frequently seen small black spots resembling fly specks, which are another form of the disease. As the sooty fungus grows over the surface of the skin, it is easily controlled if spraying is done at the right time. The disease develops in summer after the first three sprayings for the Apple Spot have been given, and it will require at least a fourth spraying to control this disease. An experiment was conducted at the New Hampshire Experiment Station a few years ago to control it on pears, the last spraying with Bordeaux mixture being given on July 26. Of the sprayed fruit 98.9 per cent. was clean, and of the unsprayed only 1.3 per cent. Spraying the apples once when they are about the size of Transcendent Crabs or larger should control this disease, and if apple trees were given a fourth spraying for the Apple Spot, as is recommended, there should be no trouble with it. Unfortunately, the Sooty Fungus spreads in storage, and fruit that is little affected when it goes into storage may be considerably injured before the fruit is sold. Fruit affected with this disease is known as "Clouded Fruit" in the trade. This disease is usually confined to the south-western parts of Ontario, but this year the writer was shown an affected specimen from near Lachine Locks, Que.

The varieties usually most affected are the Greening and Northern Spy, but it also injures the Baldwin and other varieties.

W. T. MACOUN, Horticulturist.

Central Experimental Farm, Ottawa.

## Niagara District Fruit-growers' Meeting.

On January 19th the annual meeting of the Niagara District Fruit-growers' Association was held at St. Catharines. One of the topics discussed was the action of the directors of the Ontario Fruit-growers' Association in acceding to a request of the Michigan Horticultural Association by appointing a committee to confer with them relative to reciprocity in fruits between Canada and United States. The meeting endorsed this action of the directors, but held out no hope of reciprocity.

The only matter of vital importance discussed was the fumigation of nursery stock. On motion of Messrs. Bunting and Thompson, the following committee was appointed to inquire fully into the virtues and defects of fumigation: Messrs. E. Morris, D. Morris, Muir, Robinson, Lowrey and Usher.

Officers elected were: President, W. H. Bunting; Vice-Presidents, F. A. Goring and W. C. McCalla; Secretary-Treasurer, C. E. Fisher; Executive Committee, R. Thompson, J. H. Broderick, W. O. Burgess, Geo. A. Robertson, C. B. Hare, Alex. Muir, C. Lowrey, F. Blakie, Wm. Armstrong, C. Pettit, D. Pew, Wm. Hendershot, S. H. Rittenhouse, George F. Stewart, Major Hiscott, Isaac Wismer, Carl Munro, F. Berriman, Wm. Gallagher, C. M. Honsberger, S. M. Culp, R. W. J. Andrews, R. F. Robinson, Geo. Brown, J. Carpenter and W. A. Emery.

Messrs. W. C. McCalla, C. B. Hare, Wm. Armstrong, Thomas Berriman and J. H. Broderick, the committee appointed for the purpose, reported the following resolutions, which were unanimously adopted:

"Resolved, that the Niagara Peninsula Fruit-growers' Ass'n. desire to express our satisfaction with and approval of the action of the Provincial Government in establishing an experimental fruit farm in Niagara district, thus carrying out the wishes of the fruit-growers. Now that a farm, through the generosity of Mr. Rittenhouse, has been secured, we would respectfully urge the Government that as rapidly as possible they put the land into proper condition for carrying on a wide series of fruit experiments. We would also recommend that a number of practical and successful fruit-growers be given a place on the Advisory Board of the experimental farm at Jordan."

"Resolved, that the Niagara District Fruit-growers' Association tender to Mr. M. F. Rittenhouse, of Chicago, satisfaction and appreciation of his very generous gift of land for fruit experi-