

CARLETON COUNTY COW RECORDS.

I have just kept the record of five of my cows for one year, as the balance of my herd were raising calves.

I would say we have never missed the time it takes to keep the record, as we have a nice milk room, or rather separator room, near our milking stable, where we have a spring-balance scale hung, and we kept a monthly sheet, supplied by the Experimental Farm staff at Ottawa, hanging on the wall, with a lead pencil attached, and usually weighed and marked every milking.

The reason I started keeping records was to show that Shorthorn grades could be classed as dual-purpose cows, as mine were all of that class. I have one cow whose dam was a three-quarters-bred Holstein cow, and sire pure-bred Shorthorn. Another, a three-year-old heifer, was a daughter of said Holstein-Shorthorn cow, and sired by Shorthorn bull. The other three were straight Shorthorn grade cows. And I have proved that the Holstein and Shorthorn cross is one of the best crosses that can be made to produce the dual-purpose cow; that is, if you take the Holstein cow and cross with the Shorthorn bull. I may be asked why? Well, the deep-milking Holstein cow will usually transmit her milking qualities to her progeny, and the Shorthorn bull a certain amount of his beefing qualities, taking away the greater amount of the rough, bony frame of the Holstein cow, giving a cow that will give a large, even flow of milk, and then, when put dry and properly fed, will flesh up easily and put on a good share of flesh, when she is worth something to the butcher.

This has been my experience, anyway. This Shorthorn-Holstein cow has given me one-half of her progeny black, with a little white, and the other half red, with a little white.

I have learned, by the keeping of records of the past season, which of my cows are the best to raise heifer calves from for dairy purposes, so far as the amount of milk given by each cow goes. I did not have milk tested for butter-fat, but purpose doing so soon. I may say I do not consider last season's record up to what my cows can do, as we were very short of grass last summer. I give below name, age and milking term of each cow, and amount of milk given.

No. 1.—Black: Holstein-Shorthorn cross, six years old; Feb. 11th, 1906, to Dec. 11th, 1906, 7,802 pounds.

No. 2.—Young Cherrie: Straight Shorthorn grade, six years; Feb. 11th, 1906, to Dec. 1st, 1906, 7,353 pounds.

No. 3.—Durham: Straight Shorthorn grade, six years; Dec. 16th, 1905, to Dec. 1st, 1906, 7,010 pounds.

No. 4.—Beauty: Three years, daughter of cow No. 1 and Shorthorn bull; Dec. 11th, 1905, to Dec. 30th, 1906, 6,810 pounds.

No. 5.—Old Cherrie: Shorthorn grade (aged); March 1st, 1906, to Dec. 30th, 1906, 6,742 pounds.

I believe milk records are a benefit to any person, no matter how good care may be given the cows.

First, it has a tendency to giving a little better attention to the general care and comfort of the cows.

Second, it enables a person to cull his herd in such a manner as to have nothing but the best cows in his herd.

Third, keeping records keeps the young people interested in caring for the herd, and I believe helps them to become better milkers.

Fourth, you are able to sell better stock to those who are buying for dairy purposes for better prices, both as breeders and milkers.

During the past season our cheese factory paid for milk about an average of \$1.00 per hundred pounds for the season, so you will see at a glance what each cow has made for me during the season.

My cows have always been well fed, coming to the stable twice a day, and getting a little feed of some kind during summer, as well as winter.

In summer, during May and June, and part of July, they got a little bran and peas and oats mixture, ground. After that, for the latter part of July, August, September, October and November, corn and mangels were fed in stable to supplement the grass.

I try to turn my cows out in the spring in as good condition as they go into the stable in fall. We never feed ensilage, nor do we cut any fodder of any kind. In winter we feed hay, turnips and mangels, straw, and chop composed of oats, peas, barley, wheat, and sometimes add a little bran. We turn cows out of the stable every day, and often twice a day, to get water, and always have healthy, strong cattle.

Carleton Co., Ont. WM. A. WALLACE

RECORDS REVEALED THE RECREANTS.

Editor "The Farmer's Advocate":

I do not keep milk records all the time, but generally for a week or two at different times through the season. I commenced four years ago on this plan. The reason I started was reading "The Farmer's Advocate" as to how farmers were keeping cows which did not pay for their keep. I found out by weighing that I had some of that kind, and I got rid of them at the first chance. As for the time, I am sure it did not take one minute per day for each cow. It is by far the cheapest way to test your herd. Last season my neighbor, who never weighs his individual cows' milk, had six more cows than I had, and he only sent from 15 to 25 pounds more milk a day than I, so he must be keeping cows that do not pay their keep. By weighing, a person can tell whether it pays to feed grain crushed or bran. I also know it pays well to have a good hand to milk.

Prescott Co., Ont. G. A. RYAN.

A SMALL SASKATCHEWAN HERD.

Editor "The Farmer's Advocate":

We only have three milking cows at present. The time required to make the records for each cow per day can scarcely average more than one minute. Though we have not had sufficient time to make comparisons of the annual yields, we can see that this practice is the best to ascertain whether each animal is sufficiently profitable to be retained. So far we have not fed grain, but as soon as we are in a position we shall do so. We think the milk records are, if anything, more beneficial to the man who is specially feeding his cows, to ascertain the increased yield, if any, due to the extra feeding.

Lloydminster, Sask. BADEN BROS.

GARDEN ORCHARD.

LOW HEADS NECESSARY IN THE NORTH.

Editor "The Farmer's Advocate":

From my own experience and observation in Northern Ontario, I would most emphatically say head trees low. In fact, this, as a general rule among those who have planted to any extent, admits of no doubt whatever. And I venture to say that had the Eastern nurserymen sent out low-headed trees years ago, they might to-day be doing a large and profitable business, besides saving us many thousand dollars. Twenty-five years ago, when I set out my first orchard, about 50 per cent. were what you may call the regulation height, the other half being very low-headed—from a foot to three feet. Of the former I have just one tree left, and the trunk of that is alive only on the north side; of the others, which were headed low, only a few are lost, and most of these were varieties unsuited to the climate.

Sunscauld, more than all other difficulties combined, is our great drawback in fruit-growing in New Ontario. This occurs just when the snow is going away in the spring, the sun reflecting on the snow during the day starts the sap, then during the night a sharp frost occurs, freezing the sap, causing the bark to turn brown and split. Of course, years of experience have led us to preventive measures, by using which we may largely overcome the evil.

My reasons for heading trees low are these: By doing so, sunscauld is very largely prevented; wind, ice and snow have less effect on the top; the fruit is much more easily gathered; grass and weeds do not grow so readily; and, as far as my experience goes, larger and more vigorous trees result under the same conditions. Besides, a low-headed tree is usually better rooted when it comes from the nursery.

The objection that clean cultivation is more difficult among low-headed trees counts but very little with me. Until the tree comes into bearing, any of the common implements in use will go quite close enough; after that the ground is shaded, so that little difficulty will be experienced in keeping the ground clean, if that is considered desirable, in a section where many varieties are late in ripening up the young wood. My ideal tree to plant would be to start the top 18 inches from the ground; allow three branches, if possible, to form the top; cut them back to within a foot of the trunk; after that, treat every one of these three branches as an individual tree.

Of course, there is an exception to this, as a rule. For instance, I would never think of heading a Longfield or Greening 18 inches from the ground; neither would I head a Burbank plum the same height as an Abundance. The habit of growth is to be taken into consideration.

The only objection I can see to low-headed trees, where the snow falls very deep, as it does pretty much all over the North, is that for the first year or two the tops are liable to be damaged by the weight of snow melting in the spring.

St. Joseph Island, Algoma, Ont. CHAS. YOUNG

HORTICULTURAL PROGRESS.

Prepared for "The Farmer's Advocate" by Prof. W. T. Macoun, Horticulturist, Central Experimental Farm, Ottawa.

Treating San Jose Scale: Maryland Agricultural Experiment Station, College Park, Md.; Bulletin No. 112, by T. B. Symons and A. B. Gahan.—This bulletin contains the results of experiments conducted at the Maryland Agricultural Experiment Station in 1906 in spraying, to determine the cheapest and best formula to use in spraying to control the San Jose scale. Useful hints are also given fruit-growers in the preparation of the insecticides recommended and in the time and method of spraying the trees. Eleven different mixtures made with sulphur were tried, and 1,380 trees treated, of which 840 were apple trees, and 540 peach trees. In addition to the eleven sulphur mixtures tested, the patent insecticides, Scalecide, Kil-o-Scale, and Target Brand Scale Emulsion, were also used.

The lime-sulphur washes, made with different proportions of lime, were almost uniformly successful, but the sulphur mixtures heated by fire were more successful than those prepared by heat generated by the material used, although where caustic soda was used with lime to generate heat better results were obtained than with lime alone, and the statement is made that "the self-boiled mixtures, in which caustic soda and a good quantity of stone lime are used, can be safely substituted for the heat-prepared mixtures, where apparatus for cooking by external heat is not available." The lime-sulphur mixture cooked for half an hour gave almost as good results as that cooked for one hour, but the latter time is recommended.

Kil-o-Scale, Scalecide and Target Brand Scale Emulsion did not give satisfactory results when applied in the strength recommended by the manufacturers, but where twice the quantity was used the results were good, and it is recommended by the writers of the bulletin that if these insecticides are used, to double the strength recommended by the manufacturers.

The most satisfactory formula, and the one recommended is: Stone lime, 20 pounds; flowers or flour of sulphur, 15 pounds; water to make 50 gallons (wine measure).

The method of making is as follows: "Put twenty gallons of water in an iron vat or hog-scauld and bring to a boil, then add the stone lime and sulphur. The sulphur should be made into a paste with hot or cold water before placing it in the boiler, in order to facilitate its mixing. After the lime and sulphur have been boiled for some time, salt may be added, if desired. Boil the mixture, stirring occasionally, from thirty minutes to one hour, or until the sulphur is thoroughly dissolved and a clear, amber-colored solution produced. Then dilute by adding sufficient hot or cold water to make fifty gallons. Pass the mixture through a strainer with at least twenty meshes to the inch into the spray barrel, and apply to the trees warm."

This mixture may also be boiled with steam when large quantities are used.

When it is impracticable to cook the mixture by fire or steam, it is recommended to be made as follows, with the expectation of getting fair results: "Good quality, freshly-burned stone lime, 20 pounds; flowers or flour of sulphur, 15 pounds; caustic soda, 10 pounds; water, 50 gallons. Mix the sulphur with a small amount of water to form a paste, then add the lump caustic soda gradually to the sulphur paste. When the sulphur is all dissolved, pour this solution, with enough water to keep from burning, upon the stone lime, and allow the same to thoroughly slake, keeping the heat confined as much as possible by placing a sack over the barrel. Dilute with cold water to make 50 gallons, and strain into the spray barrel."

Flowers and flour of sulphur have been found about equally satisfactory. After four years' experiments, it is recommended to spray as late in spring as possible before the buds burst, if only one abscission is given. If it is possible to give two, and this is desirable if the trees are badly infested, spray in the fall or winter and again in the spring. If it is not possible to spray in the spring, spray in the fall.

The results will depend largely upon the thoroughness of the application. As the scale may be all over the tree, it is necessary to cover every part, and as the smaller twigs and young wood are usually infested, these should receive special attention, and it may be desirable to go over the trees after the material is dry and spray again any tips which have not been covered.

In spraying, the operator should have a rubber or oil-skin coat, hat and gloves, and it is recommended to rub vasoline on the hands and face to prevent the spray from irritating the flesh.