

best month or two only, for that period of rest is a very variable factor.

Keeping track of the weight given by each cow is simplified by using the forms supplied by the Government. Write to the Dairy Commissioner, Ottawa, for samples of the record forms for three days per month, and those for daily weights. It will be still better to take samples as well as to learn by the test how much fat each cow gives.

C. F. W.

Individual Cow Records Pay.

Editor "The Farmer's Advocate":

The slogan "Production more than usual" is particularly applicable to dairy cattle in Canada, not only in the year 1915 but for all succeeding years. The dairy farmer has reached the crisis of producing milk at high cost, and receiving little more and often less than cost for the same. Only two ways are open for the correction of this difficulty, namely, that the consumer appreciate conditions and pay more for the milk, and that the farmers increase production at a lower cost. The increasing of production is necessary not only from patriotic, international and national viewpoints, but also as dairy farmers, for our self-preservation. A great deal is being written regarding this subject of increased production, but little apparent attention has been given to the subject of more profitable production. Our most careful statistics show that at the present time fully thirty-three per cent. of cows in Canada are producing milk at a loss to the owner. This is due partly to the lack of dairy qualities in the cow, and partly to the lack of intelligent feeding on the part of the farmer.

One of the surest ways of eliminating this vast waste of time and money is the keeping of individual cow records. During the past few years many Canadian farmers have adopted such methods. The Animal Husbandry Division of the Central Experimental Farm, Ottawa, has for years distributed free of charge co-operative milk and feed record forms. Many users of these records attribute their success to the knowledge of both the cows and the methods of feeding thus gained by keeping such records. Many of these farmers have more than doubled their production per cow in five years, due to the elimination of the "boarder" and the more economic feeding of the good cows. The profitable dairy cow must give at least five thousand pounds per year in order to show any profit over feed, labor, interest, and depreciation. Only by the weighing of each individual cow's milk can we hope to distinguish the profitable from the unprofitable animals.

Successful breeders of dairy cattle must devote all their attention to the development of good foundation stock, yet a majority of Canadian dairy farmers are losing money and wasting years in the handling of at least some poor foundation animals. Little time is necessary in order to make individual weighings of milk. Spring-balance scales are cheap and record forms are supplied free, yet it is all too evident that many farmers do not appreciate the value of such. Many types of forms are available to suit the size of herd or the individual methods of the farmer.

The work of the Cow Testing Associations of the Dairy Branch, Department of Agriculture, Ottawa, deals largely with the communities where a large percentage of the farmers are weighing their milk, while the Central Experimental Farm co-operative milk record work is aimed to assist individual farmers in any district where the more favorable methods are not available.

These same co-operative forms are used in the record keeping at the Central Experimental Farm and at all Dominion Government Farms in Canada. A few of the benefits from their use definitely proven on the Dominion Farms are as follows:—

(1) The weeding out of unprofitable cows. Many thousands of dollars have been saved on the Central Experimental Farm alone by the weeding out of all cows which will not leave a margin of profit over and above feed, labor, interest, and depreciation. Probably even more money has been saved for the farmers purchasing foundation stock from these herds, since only males and females from profitable producers have been sold. It is well to mention that some of the very promising individuals and the best looking cows have been eliminated as unprofitable. By feeding fewer head in which all were profitable greater gross returns and profits have accrued.

(2) Feed is saved. The feed bill to the dairy farmer is a most important question at the present time. By knowing the production of each cow, feed should be given proportionately. This means the occasional weighing of feeds, but this procedure is found highly remunerative. Many cows were more profitable on less feed per hundred pounds of milk received than were others.

(3) Better preparation of cows for lactation periods. The weighing of the cow's milk for each lactation period has shown a marked advantage in the preparation of a cow or heifer for her breeding year's work.

(4) The interest in the hired men in the in-

dividual production, feed bills, and profit from each cow in the herd immediately follows the starting of individual cow records. This interest would otherwise be lost as there would be no basis for comparison or calculation.

Let me illustrate the difference in production of good and poor cows given to pure-bred herds with a few tabulated comparisons of the records at Ottawa. It must be remembered that only cows promising a profitable production were maintained in the herd and all were given the best possible care and feeds for best results. Each breed is here given, not with the intention of making comparison between breeds as this would be impossible owing to different ages of herds, dates of calving, etc., but rather to illustrate the value of record keeping within each herd. In the following tabulations attention is drawn to the fact that butter is valued at twenty-six to thirty cents per pound and skim-milk at twenty cents per hundredweight. Silage and roots are valued at \$2 per ton, straw at \$4 per ton, green feed at \$3 per ton, and hay at \$7 per ton, these figures representing approximately the cost of their production. For further details see annual reports of the Central Experimental Farm. Attention is also drawn to the fact that the profit column represents profit per cow only above cost of feed, while the labor, value of the calf, value of manure, interest and depreciation on cow, buildings and implements are not included.

These tables in full show a ten-year average for the three best and three poorest cows as well as the pounds of milk, per cent. of fat, pounds of butter and the amount of meal consumed for all the cows but space will not permit of their appearance in this abbreviated table.

	Days in Milk.	Value of Butter and Skim-milk \$	Total cost of feeds. \$	Cost of 100 lbs. Milk. c.	Cost of 1 lb. Butter. c.	Profit on Cow. \$
Ayrshires:—						
Three best	323	151.89	68.10	73.	15.2	83.79
Three poorest	262	80.71	53.36	101.3	22.7	27.35
Best Cow	395	192.35	84.88	69.2	15.1	107.47
Poorest Cow	303	76.12	53.32	96.5	24.4	22.80
Guernseys:—						
Three best	671	169.46	90.10	104.9	17.4	79.36
Three poorest	324	94.85	49.37	108.7	17.2	45.48
Best Cow	615	171.78	86.18	106.1	16.5	85.60
Poorest Cow	388	94.43	58.46	131.4	20.4	35.97
Holsteins:—						
Three best	301	173.13	77.78	65.8	15.6	95.35
Three poorest	402	149.69	82.26	75.7	18.8	67.43
Best Cow	340	211.86	91.65	66.3	14.8	120.21
Poorest Cow	338	90.91	52.04	80.9	19.9	38.87
Jerseys:—						
Three (average)	414	144.	64.31	91.3	14.9	79.69
Best Cow	508	199.32	85.15	89.	14.1	114.17
Poorest Cow	354	98.14	51.07	132.	16.8	47.07
Shorthorns:—						
Three best	300	81.17	50.44	80.	17.2	30.73
Three poorest	236	46.55	45.12	134.	27.7	1.43
Central Experimental Farms, Ottawa.						
E. S. ARCHIBALD.						

The Norfolk Holstein Sale.

The second annual consignment sale of pure-bred Holsteins, held by the Norfolk Holstein-Friesian Club, took place in Simcoe on Thursday, Feb. 11, 1915. Forty-six individuals in all were sold. The highest priced animal was Leone Pietertje Mercedes, which went to Lloyd Taylor for \$190. This cow is grandam of Mercedes Lady Mechthilde, which won the sweepstakes at the Ottawa Winter Fair in 1915. Twenty-five selling for over \$100 made the grand total of \$3,330, or an average for the 25 of \$133.20. Those selling for less than \$100 were young stock and averaged in the vicinity of \$65.50. Following is a list of those selling for \$100 and over with the purchaser's name:

Madora De Kol 3rd, Wm. Mullree.....	\$115
Cornelia Tensen De Kol, Jno. E. Rushton....	170
Daisy Elgin De Kol, Lloyd Taylor.....	130
Kate Springbrook, A. Cridland.....	150
Mona Sylvia, A. E. Hulet.....	100
Eunice Mercena Posch, John Moore.....	115
Eileen Mercena Posch, Wm. Cogholt.....	105
Flora Mercena Abberkerk, W. Burt.....	175
Pontiac Pietertje Calamity, W. J. Biggar....	165
Leone Pietertje Mercedes, Lloyd Taylor.....	190
Lynn River Mercedes Clara, R. Burnaby.....	115
Princess Mercedes Rosa 2nd, W. J. Biggar....	115
Lynn River Dowdrop, Chas. E. Beercoff.....	125
Minnie Clay's Mimi, John Rushton.....	110
Minnie Clay, C. E. Smith.....	120
Daisy Calamity Princess, R. Hillyer.....	155
Rosa Kent Mechthilde, J. Moore.....	115
Lady Pietertje Abberkerk 2nd, F. S. Pass- more.....	185
Princess Schilling, Edwin Phillip.....	100
Viola Lambert, David Waterbury.....	150
Vida Cornish Miba, Frank Chapman.....	120
Annie Posch Clay, E. C. Chambers.....	115
Minnie Sarcasie, E. C. Chambers.....	165
Arlotto De Kol, Grant Spencer.....	110
Valentine of Forsterpost, A. F. Hulet.....	115

Sore Teats.

Editor "The Farmer's Advocate":

I notice that several readers have lately been asking for advice on sore teats through the columns of "The Farmer's Advocate." Perhaps this short article may contain a few hints for those who are in doubt as to what to do to cure their cows.

The commoner teat troubles may be divided into three divisions. Warts, Sore Teats, and Blocked Teats. Warts on the teats of a milking cow do not generally cause much trouble at first, but after they are well developed they tend to make the teat tender to handle.

Wherever possible, the easiest way of getting rid of warts is to tie a piece of waxed silk tightly around the wart as close to the teat as possible. After a few days the wart will drop off, and should cause no more trouble. It is as well to treat for warts while the cow is dry. For the warts that are too small to tie round with silk, an easy way of removing them is to touch them with a feather dipped in butter of anti-mony. This is very strong, and care should be taken not to touch the cow's teat at all.

Sore teats are a much more difficult proposition, as milking opens the sores, and a cow in full milk cannot be laid off for a week to enable her teats to heal up. Many sore teats start by the cows being turned out into the pasture with wet teats, and the result is that the wind chaps and cuts the teat. Always be sure and dry the teat after milking. Oxide of zinc ointment applied after each milking is one good remedy. Here is a way that we have tried and found very

successful. To one ounce of glycerine add one dram of boracic acid. Mix this in about one-half pint of warm water, and put in a narrow jam jar. After milking put the teat in this mixture, holding the jar close up to the cow's udder, and let the affected teat soak for a few minutes. This mixture may be kept, and warmed up and used again and again.

A little touch with a crystal of alum after this bath will help the more obstinate sores to heal, but care must be taken not to use anything that will cause the skin of the teat to wrinkle and pucker up when it heals.

Blocked teats are caused by a little ball of flesh inside. In nature these growths are very like the warts on the outside of the teat. Some are only attached to the lining of the skin by a little string, and can be pushed out of the way by the insertion of a teat syphon. Sometimes they break off, and come away of their own accord. They are always a bother, as they interfere with the flow of the milk, and moreover, make it very hard to strip the quarter clean. I have seen the more obstinate ones removed by the use of a large-sized milk syphon, with one side filed to a sharp edge, in exactly the same manner as an apple is cored with a patent corer. After being introduced into the teat, it is slowly turned round, with the sharp edge against the lump. It is as well to do this with the right hand and to hold the teat extended in the left hand. It is a simple little operation, and yet it is very easy to lose the quarter in performing it. The syphon must be sterilized in boiling water before insertion, and every precaution should be used to insure absolute cleanliness. There will be a little blood come from the teat, and this should be milked out and the teat syringed out with a seven per cent. mixture of boracic acid and warm water. It is best to remove the lump while the cow is dry. The lining of the teat will soon heal so long as it is kept free from germs. Unless everything is spotless-