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in March and April. In spite of usual care the milk flow was gradually falling off during November and December, the average yield in each month being about 2 lbs. per head per day less than in the preceding month. A small scale was obtained and hung up in the stable, a board was tacked up beside it, and on the board a ruled sheet on which to record each cow's morning, evening and total daily yield. This was January 1st. By the end of the month the average daily yield per cow had increased from a little over 12 to 13½ lbs. per day; by the end of February it had increased nearly another pound; through the first half of March it held about steady, as some of the cows were approaching parturition. From then on it decreased till the cows freshened again. What was it that enabled us to arrest the shrinkage and actually increase the flow by an average of 2½ lbs. a day for each cow under these circumstances? There was no particular change of weather, and or conditions; very little more meal was fed, and more roots. The secret was here: From the time we began to keep track of the milk yields everybody on the farm developed a new interest in the cows. The milkers were more prompt, more regular and more careful in stripping; the feeding was more regular; drafts in the stable were avoided, so far as possible; the meal ration was varied judiciously, some cows being given more and others less than before; the dog's liberties with the cows when out in the yard were curtailed, and in every reasonable way they were given a chance to do their best. There was not a great deal more time spent in the stable, and what little extra there was meant just so much less lounging around the house, so it did not represent much money value. The actual time spent in weighing the milk amounted to not over ten minutes a day for a herd of six cows, and figuring up the records required one or two evenings a month. The weighing was continued by the writer as long as he was on the farm, and recontinued for a few months on his return later on, and practiced with similar results on another herd since. There was no Babcock tester within reach, so no testing was done, and the mere milk records were not a reliable guide for weeding out the poor cows, but the increased production per cow was ample compensation for the time spent, and the experience was by far the most valuable gained in all the years on the farm. The best way to raise a race of good dairy herds is to get a lot of boys and young men interested in daily milk records. For our part we would not think of dairying without keeping such a record. It is the chief corner stone of success in dairy husbandry, and no man who wants to make a real profit out of his cows can afford not to keep a record. It will pay anyone, but it will pay best the intelligent and careful dairyman, for he will draw the most valuable conclusions from the data he gathers, and apply his knowledge to the best purpose.

#### HOW TO KEEP A RECORD.

The keeping of a milk record is exceedingly simple. All you do is to weigh the pail of milk, deduct the weight of the pail, and mark down on a sheet tacked up beside the scales the amount of each cow's milk. A small dipperful (about half a fluid ounce) of milk is then taken and placed in the sample jar, in which is a chemical preservative, made by mixing 7 parts potassium bi-chromate with one part corrosive sublimate. In each bottle put about the quantity that will lie on a ten-cent piece. In hot weather a little more might require to be added at the end of two weeks. When adding sample of milk twice daily, give the bottle a rotary motion, and keep it closed with a turned wooden cork. The testing may be done once a month by the creameryman, by yourself, or some neighbor who has a Babcock tester.

#### A FAIR BASIS ON WHICH TO COMPARE THE COWS

Below is a convenient form to use in keeping the daily record, also a form, according to which a monthly summary may be kept in a special book—one page for each cow—showing number of days milking, total pounds milk, average per cent. of fat, estimated pounds fat, and total points for the month's production. At the end of the year each cow's monthly records may be summarized.

A word of explanation may be necessary as to the object of the column, "cow's monthly score." It is not fair to compare cows, especially where butter is being made, nor yet where the cheese factory pays according to test, on a basis of milk yield alone. Neither is it fair in any circumstances to compare them on a basis of fat yield alone. A cow giving 6,000 lbs. of milk containing 200 lbs. butter-fat, is more valuable to a farmer than a cow giving 5,000 lbs. milk containing the same quantity of fat. The former cow yields an extra thousand pounds of skim milk, which to any good feeder is worth, at a low estimate, \$2.00 for feeding calves or pigs. To arrive at a fair estimation of the relative value of various cows, it is necessary to take account of both milk and butter-fat, and a very simple way of doing it is to credit each cow with one point for each cwt. of milk, and one point for each pound of butter-fat.

In all calculations care should be exercised not to become so absorbed in the figures as to lose sight of practical points, such as ease of milking, constitution and general vigor of cow, etc. The wise dairyman, though, will secure all the facts and figures possible, set down all he can in black and white, and there will still be plenty of room to use his judgment.

#### DAILY MILK RECORD FORM.

Month of.....					
Date.	Time.	Daisy.	Belle.	Spot.	Total of herd for day.
1	M				
	E				
2	M				
	E				
3	M				
	E				
Etc.	M				
	E				
31	M				
	E				
Totals					

#### YEARLY MILK AND BUTTER-FAT RECORD FOR EACH COW.

Cow, Bessie.					
Month.	Days Milking.	Lbs. Milk.	Per cent. Fat.	Estimated Lbs. Fat.	Cow's monthly score. 1 point for each cwt. milk. 1 point for each lb. fat.
January...	31	400	3.6	14.4	4+14.4=18.4
February...					
March.....					
Etc.....					
Total.....	300	5000		180	50+180=230

Those who wish to go further and keep account of the average amount of feed consumed might find the following form, supplied on application by J. H. Grisdale, of the Experimental Farm, Ottawa, useful by way of suggestion. One can afford not to bother with feed calculations at first. Let a man get really interested first in milk records and other calculations will be adopted more and more.

The daily record is the way to success in dairying. Will you take it, or will you drift?

#### FEED RECORD.

For week ending.....

Description of Mixture of Meal Fed.....

		Quantity Fed During Day.						
Cow.	Kind of feed.	Sunday.	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.	Saturday.
	Meal...							
	Hay...							
	Ensil'g .....							
	Roots .....							
	Meal...							
	Hay...							
	Ensil'g .....							
	Roots .....							

#### The Tale of the Scales.

Let me tell you what happened to my herd within a week. Friday night and Saturday morning they gave 426 pounds of milk. I was obliged to be away from home from Saturday morning till Sunday night. Then, Monday I attended to matters that kept me away from the barn. Saturday night and Sunday morning the herd gave 402 pounds. Sunday night and Monday morning they gave 393 pounds, and Monday night and Tuesday morning 374 pounds. I looked over my weights and found a general shrinkage, which meant neglect, pure and simple.

Once upon a time, if my men had told me

everything had been attended to properly, I should have had to believe it; but the scale in the dairy barn is much like the tape in the stock speculation, only surer. Learn to read its records and you will have a pretty fair idea of what is happening, even if you are not at the actual scene of activity.

One of the most difficult things on the dairy farm is to convince your men that you know the signs which indicate conscientious effort or neglect on their part. I sometimes wonder if I look like a fool or act like one; it certainly takes some men a long time to find out that I am onto my job.—[Thomas Hollis, in Jersey Bulletin.

#### Milk Strainer and Milk Stool.

To the Editor "The Farmer's Advocate":

We have frequently read of a cloth strainer being preferable to metal for milk, but have never noticed any mention of what cloth is best, or how it is used. Long ago we began using a cloth for straining milk, and, as a consequence, have had no more use for a milk pail with a strainer. For a long time, however, we failed to "catch on" to the best way of using this cloth strainer. We used an elastic band to go over the top of the can and around the cloth strainer. As this would frequently be lost or missing, we fortunately thought of common clothes pins for this purpose, and so far have found nothing better. They are neither expensive nor hard to procure, and not only easily put in place, but stay when they are there. It goes without saying that cloth is better than any metal can possibly be. I am not sure what cloth is best, but we find nothing better than five-cent factory cotton. One yard will make four strainers. If you are using a cream separator, the cloth strainer and clothes pins will work fine, only a longer strainer and more pins will be necessary. For those who use the shallow pans it is not quite so handy, but I would not use these any more if I could possibly help it, even though I could find no other use for them; they are hardly up-to-date.

We have in use, also, an easily made milk-stool, which combines a seat for the milker and a place in which to set the pail. A board about an inch thick, 21 inches long, and 10 inches wide, two legs in front, 6 or 7 inches high, and two at the back, one inch longer. The seat is about 8 inches or so higher than this, and about half the length of the whole, leaving room to set a pail in front. The front part of the stool is better rounded a little, and to prevent the pail, which tips forward a little, from slipping off, a piece of a barrel hoop can be nailed around the front, and have it project up one-fourth in. or more. The side supports of the seat are a little under at the front, to allow for the slant caused by the front legs being shorter than the back ones. Some of the advantages of such a milk stool are that the pail can be kept clean no matter where you milk; there is less danger of the cow kicking it over or stepping into it; the milk splashes less, and so, unlike the usual three-legged variety, it is not easily upset.

G. A. DEADMAN.

Brussels, Ont.

#### "Quality and Quantity of Butter."

To the Editor "The Farmer's Advocate":

At your request, I should like to make the following comments on the very important question of "Quality and Quantity of Butter." We were pleased to see that this year Prof. McKay put QUALITY first, and did not lay so much emphasis on "Quantity" as was done last year, whereby some of our buttermakers got into the slough of dissatisfaction and tried to automobile up the hill of difficulty. The buttermaker who tries to waterlog his butter is treading on dangerous ground. But, after all, it is not an easy matter to incorporate more than sixteen per cent. of water, and at the same time make a good quality of butter.

A brief account of an experiment made by our dairy class on Jan. 30th, 1906, under the supervision of Instructor McDougall, will throw a little light on this question. A lot of cream was divided into three equal parts by weight, and churned under the same conditions as far as possible. No. 1 was treated in the usual way, and contained 13.98 per cent. moisture. No. 2 was washed with the rollers in motion, and contained 14.11 per cent. moisture. No. 3 was washed and salted with brine, and contained 15.83 per cent. moisture. The yields of butter were 62½ pounds, 62½ pounds, and 62½ pounds, respectively, from the three lots. On Friday, Feb. 2nd, samples from lots 2 and 3 were scored by the instructors and class, without knowing how or when made. Nearly all were agreed that No. 2 was inferior butter, especially in being "gritty" and "mottled." The results in this case of No. 2 method, washing with rollers in motion, agree with results obtained during last summer and in December, 1905. There was no increase in the quantity or moisture of the butter, more than might occur as the results of experimental error. It would seem to us that a good deal of "guff" has been said or written on this