

DAIRY

The Difference in Cows.

EDITOR FARMER'S ADVOCATE:

I have been keeping records of each individual mess of each individual cow since March 1st, 1902, but have given up to my son, who is now running the farm, and is continuing in the same course. We are both well satisfied that it pays. We have run from 6 to 10 cows, and the time it takes is too small to estimate. It shows where the leaks are; also in connection with the testing, shows what each cow is doing. We have one cow that has never tested less than 4 per cent., and from that to 5.7 per cent., that has given nearly 9,000 pounds of milk in a year, while some others had to be got rid of for beef.

J. W.

Notes and Rules for Dairymen.

The Department of Agriculture for Saskatchewan, through the superintendent of dairying, W. A. Wilson, is distributing some sound advice to creamery patrons and other dairymen through the medium of a bulletin from which we extract the following:

RULES FOR CREAMERY PATRONS AND OTHER DAIRYMEN.

1. Read current dairy literature and keep posted on new ideas.
2. Observe and enforce the utmost cleanliness about cattle, their attendants, the stable, the outside milking place (corral), the dairy and all utensils.
3. Persons suffering from any disease should remain away from the cows and the milk.

THE STABLE.

4. Stables should be well ventilated, lighted and drained and should be free from drafts, floors should be tight, and the building throughout plainly constructed.
5. Clean and whitewash the walls at least once a year.
6. Remove the manure from the stables once a day and keep it at least one hundred yards from the stable door. A good plan is to haul it directly to field and spread it.
7. Provide a gutter immediately behind the cows to catch the manure and liquid. This makes for cleanliness in the stable. In fact, without it it is almost impossible to keep the cows' flanks and udders clean.
8. Use plenty of bedding under the cattle and keep a constant supply of absorbent in the gutter.
9. Do not allow the litter or bedding to become musty.
10. Allow no strong smelling material to remain in the stable.
11. Do not raise any dust in the stable by feeding stock or cleaning the stable immediately before milking. Dust particles contain many germs, which obtain access to the milk through the dust. The germs constitute the seed which produces strong and objectionable flavors in milk. It is important, therefore, to take every precaution to prevent dust and dirt from getting into the milk.
12. In winter the temperature of the stable should not be much above 55 degrees Fahr. or much below 40 degrees Fahr. Ventilation must not be sacrificed for temperature. Better a colder stable free from draft but well ventilated than a stable kept warm at the expense of ventilation.

THE COWS.

13. Any animal suspected of disease should be promptly removed from the herd and her milk rejected from use until she has recovered or is pronounced healthy. It is advisable to have the herd tested at intervals for tuberculosis.
14. Do not permit the cows to be chased or frightened by dogs. Abuse and excitement will interfere with digestion and cause loss of food and fat in the milk.
15. Never drive the cows faster than a walk to or from the place of milking or feeding.
16. Never allow them to be excited by abuse, loud talking or unnecessary disturbance.

17. Do not expose them to cold rains or sleet in the spring or autumn. This will decrease the milk flow and it cannot be restored to its normal proportions even under the best conditions.

18. Provide good pasture in summer and plenty of pure fresh water easy of access.

19. Grow a small acreage of peas and oats, or oats alone, as a soiling crop to be cut green and fed to the cows when the pastures commence to fail.

20. Provide succulent winter feed. A mixture of peas and oats, or oats alone, cut when the grain is in the dough, well cured, and fed unthreshed with mangolds or sugar beets will give very satisfactory results as a winter ration for dairy cows.

21. Do not change the feed too suddenly.

22. Salt regularly. The best way is to keep a supply of salt always accessible.

23. Strong flavored foods, such as turnips and cabbage, should not be fed except in limited quantities and immediately after milking. If fed beyond the capacity of the cow and before or several hours after milking the flavor of these foods can be detected in the milk and will injure the flavor of the butter. It is better not to feed such foods at all. Mangolds or sugar beets make excellent food for milch cows and do not flavor the milk or butter.

24. Long hair around the udder should be clipped.

25. Do not milk the cow within twenty days before calving and do not use the milk until the ninth milking afterwards.

26. The value of a cow largely depends on the treatment she receives during her young days. The stomach of the calf is weak and should not be overloaded. Feed the mother's milk in small quantities regularly three times a day, for the first ten days. Then gradually increase the quantity and also substitute skim milk for whole milk. Make the change very gradually and when all the milk fat is removed add to the skim milk a fat substitute. Flax seed meal steeped in lukewarm water and made into a jelly can be recommended. Keep the heifer calf growing and in good health, but not too fat and you will have a better cow.

MILKING.

27. There is no place better for milking, in both summer and winter, than a nice, clean, well lighted and well ventilated stable.

28. When milking is done outside, the milking place or corral should be in a sheltered spot where the atmosphere is pure.

29. The droppings should be gathered up and removed immediately after each milking.

30. Cows should not be allowed to remain in the milking corral all night. The corral soon becomes filthy if this is done.

31. The milker should wash and dry his hands before commencing to milk. He should also wear clean clothes.

32. Milking should be done with dry hands. With a little practice milking may be done just as easily with dry hands as with wet, and it is much cleaner.

33. The udder and all surrounding parts should be washed in lukewarm water or wiped with a damp sponge or cloth just before milking.

34. The first streams of milk from each teat should not go into the pail. The first drawn milk contains little or no fat, but is loaded with germs which have found lodgment in the teats.

35. Milk at the same hour every day, night and morning.

36. The same person should milk the same cows every time and in the same order.

37. Milk quickly, quietly, cleanly and thoroughly. Unnecessary noise or delay is detrimental.

38. If part of the milk is bloody or stringy, the whole should be rejected.

39. If, through an accident, a pailful or part of a pailful becomes dirty, do not try to remedy it by straining, but reject the milk and rinse the pail.

40. Weigh and record the milk given by each cow, and take a sample night and morning at least once in ten days for testing. In this way you will learn the value of the individual cow. Raise the heifer calves from only the best cows. Send to the butcher's block all cows that are not paying for their keep. The value of the herd can be greatly increased by so doing.

41. Remove the milk from the stable as soon as possible after milking. Better to remove it immediately after each cow is milked.

42. Strain immediately through a metal gauze or several thicknesses of cheese cloth.

43. It will pay you to have a cream separator; as all fat can then be removed from the milk. Separate it at once and at a temperature not below 95 degrees Fahr. Separator agents may tell you that their machine will separate milk cold. Clean and profitable skimming cannot be done with any separator unless the milk is warm.

44. The cream separator should not be in the stable, but in a clean room completely isolated from the stable. Better still in a small dairy building at least one hundred yards from the stable.

45. The separator should be taken apart after each milking, all parts washed in warm water and thoroughly scalded. This applies to all makes of cream separators.

46. Where deep setting cans are used the milk should be set in cold water immediately after milking and left undisturbed for twenty-four hours. The disturbing of the vessel causes the fat globules, which are slowly rising to the surface, to be again scattered through the milk; and, as a result, a large proportion of them never rise to the top. Separation is more efficient in a rapidly falling temperature, consequently the colder the water surrounding the milk the better the results.

47. Shallow pans should not be used; the loss is too great and the conditions are too unfavorable for making first-class butter.

CARE OF CREAM.

48. Every dairyman and creamery patron should use a thermometer.

49. The accuracy of a thermometer can be fairly well tested by placing it under one's tongue, when it should register 98 degrees Fahr. The temperature of a person in good health is about 98 degrees.

50. As mentioned in Clause 11 strong flavors are produced by the development of germ life. To develop, however, these germs must have a suitable temperature. They will multiply rapidly between 60 and 100 degrees Fahr. Between 40 and 60 their growth is slower, while below 40 they multiply very slowly. Therefore, when separating is completed cool the cream at once to 40 degrees Fahr. or below, and keep it at that temperature until delivered at the creamery.

51. Cool the cream from each separating to 40 degrees Fahr. or below before mixing with the other cream.

52. Keep the cream in a clean, cool room, in a tin vessel, surrounded with ice or cold water.

53. Do not allow the cream to freeze in winter.

54. Cream should be sweet when delivered to the creamery. This may necessitate a tri-weekly or a daily delivery during hot weather.

55. Spring wagons should be used for hauling cream.

56. The gypsy canvas cover should be used on all cream wagons to protect the cream from the hot sun and the road dust.

57. Cream haulers should commence to collect cream not later than five o'clock in the morning and aim to deliver it at the creamery early in the day, thus avoiding the extreme heat. A better quality of butter can be made when the cream is delivered sweet at the creamery. It will also bring a better price to the patrons. It is in the interests of the patrons, therefore, to have the hauler lift their cream early in the morning and deliver it at the creamery early in the day.

58. The hauler should keep his person and wagon clean.

THE UTENSILS.

59. All milk utensils should be of metal and should have all joints smoothly soldered. Never allow them to become rough or rusty inside.

60. The covered milk pail is more sanitary than the ordinary pail.