THE GRAIN GROWERS' GUIDE

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# airy Utensils

An article dealing with the Equipment with which every up-to-date home dairy should be furnished

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## Our first purpose in this article is the consideration of dairy utensils from the home dairy standpoint, altho several of those mentioned are equally serviceable and essential, whether we are making butter at home or sending our cream to

the creamery. The following are some of the points that should be kept in mind in purchasing dairy utensils: (1) All utensils should be sanitary, that is, they should be so constructed and of such material as to condition. (2) They should be durable. Too low a first cost\_does not always, or Too low a first cost does not always, or even generally, mean economy in buying. Good buying consists in getting good value for our money. (3) They should be labor saving in as large a measure as possible, that is, they should enable us to do the best work with a minimum expenditure of labor. (4) They should enable us to avoid losses in our work. (5) They should aid us to do our work better or more efficiently. While we do not look for every utensil purchased to possess all of the characteristics men-tioned, yet each should possess one or more of them, and taken together they should enable us to reduce the labor expended on our work and to make more and better butter. and better butter.

#### Tinware

All pails, cans, dippers and other tin-ware used should be made of a good quality of tin and should be so constructed that they will be easy to clean. All seams and corners should be well flushed with solder and the soldering should be smooth. Figure 1 shows a desirable and an undesirable type of pail and a seam that is foulty a place for the accumulation is faulty—a place for the accumulation of dirt on account of not being properly flushed with solder.

A plain shot-gun can with the rim of the lid going over, as indicated in Fig. 7, instead of inside the can, makes a very Instead of inside the can, makes a very desirable cream can. For cooling the cream, or for raising its temperature for ripening purposes, such a can will prove much more satisfactory than a cream crock. A galvanized iron can, about a foot in diameter, for holding warm water for setting the cream to ripen it will wish to warm the cream to ripen it, will prove a convenience. There should be in every dairy a suitable cream stirrer, in every dairy a suitable cream stirrer, like the one shown in the can in the same cut. All dippers used in the dairy should be sanitary in construction. If the ordinary handle be used, instead of a solid handle, it should be well soldered to prevent milk or cream from working its way into it its way into it.

### **Cream Separator**

Where milk is set in either deep cans or shallow pans there is a loss of about a twelfth of the butter-fat in the skim milk, even under the most favorable conditions for setting it, while the loss is much greater if the conditions be faulty. This means, at best, the loss of the product of one cow in a herd of twelve cows. Furthermore, our control of the richness is quite limited, and to a considerable extent is this true of the flavor, while with a good cream separator the loss of fat is very small and we are enabled to take a cream of any richness we desire. Hence a good cream separator is an essential part of the equipment of a dairy. In buying a cream separator satisfy yourself that it will skim closely when taking a reasonably rich cream, that it is simple and durable, that it runs smoothly and turns easily, that the bowl and its parts are easy to clean and that repairs are readily obtainable.

#### **Cooling** Tank

Facilities for readily cooling the cream and holding it at a low temperature are an essential part of a dairy. an essential part of a dairy. There is, for this purpose, nothing better than a well insulated cooling tank, into which to set the cream can. The cooling may be done by pumping cold well-water thru the tank, or better still, by means of water and ice. The accompanying cut Fig. 9 shows a tank set between the well There is,

and the watering trough, in which case it should be housed over. But if water and ice be used the tank can be set in the dairy. The sides and bottom of the tank Fig. 9 are made by using 2 by 4 inch studding, putting]paper and one ply of matched lumber on both the inside and the outside, and filling the four inch space dash churn and the tray and ladle for working the butter. They do better work and save a great deal of labor. The churn should be well made of a good quality wood, such as oak, and we prefer the churn with the kind of handle in-dicated in cut Fig. 4, that is, one that passes over and is attached to cranks

Fig. 3. Fig. 1. 9 Fig. 2.

Undesirable and desirable types of pails. Figs. 1 and 2 show crevices for the harboring of milk and dirt. Fig. 3 shows a property constructed pail, with all crevices flushed with solder. Note the difference between the shapes of the bottoms of the two pails.

with dry mill shavings or sawdust. The tank is then lined with galvanized iron. There should be a three-quarter inch pipe in the bottom of the tank, with a valve on it, to empty the tank when necessary. The depth of the tank and the height of the over-flow should be suited to the height of the cans. The cover of the on both  $\overline{\phantom{a}}$  sides of the churn. As to the worker (Fig. 5), the narrower the boards in it the better.

## Miscellaneous

The cream should be strained into the churn. For this purpose we use a large dipper with a coarse perforated tin or



tank is made of two plies of lumber, with damp-proof paper between, and is coated on the underside with shellac. Let the top ply of boards in the cover run length-wise and the under ply crosswise of the tank. The inflow pipe should enter the

brass wire gauze bottom and with a lip on the side opposite the handle so that the dipper can be set across the mouth of the churn. This dipper is also very convenient for setting across a pail when drawing off the buttermilk and wash



top of the tank and go nearly to the bottom.

#### Churn and Worker

In the home dairy at the Manitoba Agricultural College we use the barrel churn and the V-shaped butter-worker, and find them altogether superior to the

water. It is advisable to use a sieve for sifting the salt on to the butter. The proper regulation of temperature is one of the big factors in connection with the care, ripening and churning of cream, and the washing and working of butter. Hence, if used to the extent that it should be used, there is no more important part of the equipment of a dairy than a good dairy thermometer (Fig. 8). Make sure that it is correct. A good fibre brush for use in washing

dairy utensils is one of the indispensibles of a dairy. A wash cloth is neither con-venient nor sanitary. Everything con-sidered, a fine brass wire gauze strainer constitutes the best means of straining milk. Cheese cloth is all right if thoroughly cleansed every time it is used and

oughly cleansed every time it is used and if fairly frequently renewed. Use good butter spades, spades that are plain, substantial and made of a good quality of maple. Don't use a poor butter printer. We use a fairly heavy printer which is made of a good quality of maple, is put together with brass screws, has all the metal portion well nickeled, can be readily adjusted to regulate the weight of the print and can be taken apart readily for cleaning. Every dairy farmer should either own or have access to a Babcock tester for testing his skim milk and buttermilk and for doing cow-testing work. The storing of ice and the use of a good refrigerator for the storing of butter and

The storing of ice and the use of a good refrigerator for the storing of butter and other perishable products is a great convenience, amounting, shall we say, with most farmers to a necessity. Many farmers require ice for the cooling of the cream as well as for refrigerator purposes. Farmers desiring more in-formation on this point are invited to write to the Manitoba Agricultural College, Winnipeg, for Bulletin No. 14 on "The Care of Cream and the Storing of Ice."

#### WHAT DO YOUR COWS TEST?

Supposing you know one of your cows has a test of 3.4 per cent. of fat for the first month she is milking, have you any certainty of what she will test the next two months or the last two? One cow in the herd may keep at that first test for three or four months running, another may give far richer milk the third month and the test may increase steadily; or again, with two cows both increasing in the test during lactation, one may increase far more rapidly than the other. Hence, at the end of the season one cow may have given considerably more fat than another which gave about the same weight of milk.

It will thus be seen that the question It will thus be seen that the question of sampling as well as weighing a cow's milk is of great importance. Neither is it sufficient to sample and test the mixed milk of the herd; individual quality is worth study. It should be plainly stated in addition, that the times demand more attention being paid to testing, for the simple reason that the greneral average test seems to be steadgeneral average test seems to be steadily decreasing. As milk is valuable in proportion to its cream, or to its test of fat, it is important for the dairyman to know which are his high-testing cows. He may want a specially rich milk for his own table use; he may want an extra good price when selling a hightesting cow; he may want to raise heifers likely to test at least as high, if not higher, than their dams; so evident-ly it will pay him to know the test of each cow he owns. It is a simple matter to take samples on three days per month, and get a composite sample tested once a month. Ask the factory in your section to do the testing, speak to the dairy recorder about it, or write to the dairy division. Ottawa, for full informa tion about getting your samples tested -C.F.W. free.

It is not too early to figure on sowing some turnips or mangels for the cows next winter. Sown in rows wide enough apart for the cultivator to work, there is not as much hand hoeing to do as most people imagine. The roots can be saved quite readily during the winter time and the increased milk flow will more than repay any extra work the roots may