

## Cheese Department

Makers are invited to send contributions to this department, to ask questions on matters relating to cheese making and to suggest subjects for discussion. Address letters to The Cheese Maker's Department.

### Err on the Sweet Side

H. H. Dean, O. A. C., Guelph, has the advent of the acidimeter, which makers have been able to measure the acidity of milk and whey much more accurately than was possible under the "rennet test" method of determining acidity. The problem of milk acidity can not be solved directly by means of a rennet test; only indirectly is this possible. Because of the importance of acidity in cheese-making, the acidimeter has been of great benefit to the cheesemaker at many important stages of cheese-making, viz., "setting" and "dipping."

As a result of a number of experiments conducted at the College, we obtained the following results:

Acidity of milk at renneting, in whey, lbs. milk	Hours of curd maturing, 2 h. 27 m.	Yield of cheese per 1,000 lbs. milk, 89.04 lbs.
185	42 m.	88 lbs.
171	2 h. 35 m.	92.1 lbs.
128	1 h. 21 m.	91.78 lbs.

The average difference in yield of cheese per 1,000 lbs. milk is .69 in favor of "sweet setting."

Acidity of milk at dipping, lbs. milk	Yield of cheese per 1,000 lbs. milk, 91.14 lbs.
17	91.14 lbs.
20	91.685 lbs.
171	91.14 lbs.
203	90.72 lbs.

The average of the two years' experiments showed .577 lbs. more cheese per 1,000 lbs. milk by "sweet setting." The solution of the acid

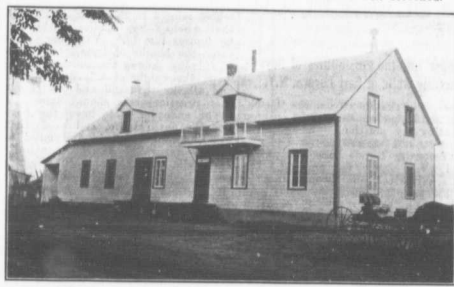
problem with reference to setting vats and dipping curds is to have the acid under control and err on the sweet side rather than develop too much acid before adding the rennet to the milk or removing the whey from a curd.

### Ideal for Milk House

GEO. M. WHITTAKER, U. S. D. A., Washington

Every dairy should have a milk house or milk room fitted especially for the use to which it is to be put, in which milk can be strained, cooled, bottled, or canned, and stored, and in which utensils can be washed and cared for. If possible the washing of utensils and the handling of milk

try the following object lessons: Take two glass cylinders; sterilize them and place in each a quart of clean milk. Pour the milk from the cylinder to another to be sure that it is all exposed to the same contamination even if both cylinders are not equally sterile. Put stoppers of clean cotton in the top of each, but insert a fly in one. Then let the milk stand undisturbed for 24 hours or more, and note the difference in the character of fermentation and odor in the milk in the two jars. Cleanliness inside and out will not always keep flies away. Nearly breeding places, such as manure piles, should be removed if possible, and all doors and windows well screened. A



A Combined Butter and Cheese Factory in Quebec Province

The neat factory here illustrated is that of F. X. Trudel & Sons, Champlain Co., Que.; a type of factory common in Quebec, but not often seen in Ontario.

should be done in different rooms. The milk house, if attached to the barn, should have an independent outside entrance; if entered from the barn it should be through a well-ventilated passage with self-closing doors at each end, only one of which can be open at a time.

The milk house or room should not be near the hog pens manure pile, privy, or anything that might contaminate the air or afford breeding places for flies. The milk room should be light, well ventilated and screened. Flies should never have access to milk or utensils. The floor should be smooth and of concrete, sloping so as to give good drainage; the edge should be rounded to prevent angles for collecting and harboring dirt. The walls and ceiling should be smooth and tight; concrete or the waterproofing is desirable. Dark corners or inaccessible places should be avoided.

### The Fight with the Fly

The fight against flies in many a cheese factory consists simply in training the corpse out of the milk when it is run in the vat, skimming off any unfortunates that may be found bathing on the surface of the curd or whey after setting, and occasionally skimming the live ones from the curd up till putting to press, says the N. Y. Produce Review. Sometimes this system gives a fly-free cheese; sometimes it does not, but it never gives the product the protection from the myriads of assorted germs which our house flies carry with them and are so effective in disseminating.

The cheesemaker owes it not only to the consumer of the cheese, but to himself and his patrons as well, to make a more determined effort to protect his cheese from the miscellaneous starter the fly is so ready and willing to furnish. His watchfulness must begin at the weigh can, and whenever dead flies show up in the strainer after any patron's milk has been poured through, the occurrence should not go unnoticed. To impress upon patrons the necessity of keep-

strong spring on the door will help some. There are some preparations that are used to keep flies away from the doors, which is oil of lavender, kerosene, etc., which is painted on the outside of the screen. But often this cannot safely be used in the factory because of the odor. Getting flies out of the factory, once in, is not so difficult, providing all openings are screened; a heroic measure is steaming them out with live steam.

Do not fail to thoroughly clean and scald all parts of the separator each time it is used, for bacteria thrive in the separator slime.

Tests made during the season of 1911 indicate good results by using skim milk powder as a basis for making culture or "starters" for butter-making.—Prof. H. H. Dean, O. A. C., Guelph.



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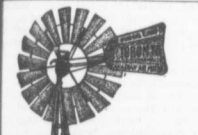
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