

Cheese Department

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

Outlook for the Dairy Industry

The Dairy Instructors for the Province of Ontario, have reported upon conditions affecting the industry, and the following general statements are compiled therefrom:

The make of cheese up to July 1st is, on the whole, less than for the same period in 1907. The make in some few factories is practically the same as last year. The cheese factories in two sections of Eastern Ontario, and six sections in Western Ontario, show an increase, but a majority of districts report a decided falling off. The average would appear to be about 5 per cent. lighter than 1907.

The sanitary equipments of factories and creameries are improving. The owners and makers appear to be much more ready and willing to co-operate and carry out the suggestions that are made to them by the staff of instructors. Without exception every instructor reports an improvement in the factories under his jurisdiction.

IMPROVEMENT IN MILK

The condition of the milk, supplied by the patrons, also shows a continued improvement, and in some cases a decided improvement. The milk is still some careless patrons whose persistent carelessness continues to injure the quality of the make. The instructors, however, report that there is a decided improvement in the attitude of the patrons towards the work of instruction. The farmers welcome visits from the Instructors, and are much more ready to carry out improvements and suggestions which they may suggest. Without exception, the Instructors report to this effect.

There seems to be an increase in the average of corn ground, especially that grown for silage purposes. Two or three instructors have noted that where a speaker was sent to the annual meeting of the patrons of a cheese factory, there has been a marked improvement in the milk supply and in the methods of caring for and feeding of the cattle.

Makers are shipping less cheese in the green state than formerly, but improvement in this particular feature of the industry seems to be less marked than in some of the others. Nine of the 24 instructors in Eastern Ontario report improvement.

THE CROP OUTLOOK

Regarding the crop outlook, as observed by Instructors, it is safe to say that the hay crop in Western Ontario will be better than in 1907, and the same is true for most sections of Eastern Ontario. Some sections, however, are reported to be lighter than

the average, but on the whole the hay crop will not only exceed 1907, but will be away above the average crop. Crops, other than hay, are reported to be generally lighter than the average, but nearly every instructor reports that doubtlessly they will exceed their present promise if rain comes before it is too late. Many localities in the province have had a number of showers since the receipt of these reports, and no doubt the crops have been much benefited, and may yet come up to the average.

The condition of the growing crops to supplement pasture is becoming more general, but the increase is not very marked. Some sections report that many farmers follow this practice, some report that only a few are doing so, while in about one-sixth of the dairy sections none at all are grown.

Considering the many which existed in the minds of so many dairy farmers that there would be a decided shortage in feed to carry the stock through the winter of 1907 and 1908, and the number of cattle which were sent to market in the consequence of ration fear, the make of cheese up to July 1st is exceedingly gratifying; and with the stock and crop outlook, we have every reason to believe that this great industry of our province will suffer no serious set-back because of conditions which existed in 1907.

G. A. Putnam,
Director of Dairy Instruction for Ontario.

Bad Flavors in Cheese

Will green barley give a flavor to milk? If so, will it go in the curdling of the cheese? I have been very much troubled by being off flavor and the feeding of green barley. How can we feed it and account for it? J. Walker.

When cows are fed large doses of any green feed such as barley and clover, at the start the milk is likely to have an objectionable flavor. But there should be no injurious result if fed in small quantities at the start and in moderation afterwards. Cows should be allowed to get used to themselves on green feed of any kind. They will not over-eat after they become accustomed to it. When first turned on to green clover or any green feed, allow the cows to gorge themselves, more than the milk is likely to be affected.

The effect of bad flavors on the cheese due to too much green feed is not likely to be permanently injurious to the cheese. A thorough aeration of the milk before cooling and a good stirring of the curds should drive most of such flavors off. If the bad flavor is very pronounced and persistent we are inclined to believe it may be due to some other cause than the feeding of green barley. Does the patron keep his milk in a place where the air is pure? Is the milking done in a cleanly manner? Are the milking utensils thoroughly washed and sealed? Is the milk can properly cleaned? The maker or someone else should inquire into these matters.

Garlic Flavor in Milk

Prof. J. C. Kendall, an American dairy authority, has been making an investigation of the garlic odor in milk and cream. Cows, when turned out to pasture in the spring, eat the tender young sprouts of this plant with relish, and the result is most disastrous to the milk and butter supply. The odor is closely associated with the butter-fat, but bitter and other flavors are not pronounced in the milk serum. Removing the skim milk does not therefore accomplish the beneficial effect that might be expected. Prof. Kendall has made a close study of the influence of this weed upon the flavor of milk and butter, and has tried different methods of ridding milk and cream of the flavor.

While this flavor can be got rid of, to a certain extent, by pasteurization and quick cooling, these are not sufficient effective to make butter made from milk with garlic flavor saleable.

In an hour or two after the animal has eaten garlic it is noticeable in the milk. In a short time the entire system is permeated by the pungent odor. It will damage the sale of the carcass of animals slaughtered, while on pasture infested by garlic. The only effective way found to overcome the effects of this odor was to turn the cows on the pasture for not more than two hours immediately after milking, and keep them from access to garlic until the following milking. Prof. Kendall found no trouble from it by feeding this plan.

Some follow the plan of keeping cows out of the pasture infested with garlic for a couple of hours before milking. But this was found not to be effective. The only effective plan is to see to it that the cows have their feed containing garlic before any considerable amount of milk has been elaborated.

The safe plan with this and other foods that flavor the milk, such as turnips, is not to feed them at all to much cows. In the fall of the year many dairy sections in Canada are troubled with the turnip flavor in milk. While this flavor may be got rid of by feeding turnips immediately after milking, it is never a proposition to advocate it. The patron is sure to take advantage of it, and feed turnips when he should not do so. There are other foods for milk cows just as good and cheap that do not flavor the milk. Then why feed anything that will endanger the quality of the product?

Keep Milk in Pure Atmosphere

The value of keeping milk in a pure atmosphere is shown by a test reported in Hoard's Dairyman. Two well kept stables were selected, one being provided with windows in the sides and in the roof besides King's system of ventilation; the other a basement stable with only a few windows in the sides. One hundred and eight samples of milk were selected and put into sterilized glass jars, then kept in sanitary surroundings for several days. At regular intervals the developments of odors and flavors was noted with the following results:

WELL VENTILATED				
	Odor		Flavor	
	Total		Total	
Hours	24:30	48:00	72:00	24:30
Cheese	1	2	10	3
Sour	1	2	10	3
Butter	1	2	10	3
Ensilage	1	2	10	3
Stale	1	2	10	3
Clean	1	2	10	3

POORLY VENTILATED				
	Odor		Flavor	
	Total		Total	
Hours	24:30	48:00	72:00	24:30
Cheese	1	2	10	3
Sour	1	2	10	3
Butter	1	2	10	3
Ensilage	1	2	10	3
Stale	1	2	10	3
Clean	1	2	10	3

The ill effects of poor ventilation are well shown in the table as the objectionable qualities are much greater in the case of the poorly ventilated stables. The ensilage qualities were slightly noticeable in the well ventilated stables, but in each case they usually disappear after a few hours, while those of manure constantly increased with the age of the milk. Due to the rapid development of undesirable bacteria. While the object of this test was to show the effect on the milk kept in well ventilated and badly ventilated

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stables before it could be removed to more sanitary surroundings, it furnishes a valuable object lesson on the effect of unsanitary surroundings of any kind have on the odor and flavor of milk. Even in summer time, when cows are not stabled, they should be milked where the atmosphere is pure and where there is no danger of contamination by undesirable bacteria. Milk should be kept away from the stables or barnyard and also the whey or swill barrel. Often the milk stand is located near the barn so as to be convenient and the whey barrel is kept close by for the same reason. The milk is sure to be contaminated amid such surroundings. Patrons of these factories cannot too strongly feel on this point. It is just as easy to have milk kept in a pure atmosphere as in an impure one.

In cleaning the separator be sure and see that the parts are dried rapidly so as to prevent the breeding. Still the drying is better not done with a cloth, as this will leave many bacteria to work upon the next lot of cream. The best way is to wash the parts in lukewarm water, then scald and heat by immersing for a few minutes in boiling water, then put in the sun to dry. The heated milk will very soon dry off.

Keep the whey tank clean.

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OWNERS OF CHEESE FACTORIES AND CREAMERIES desiring to make direct shipments to Great Britain will have an opportunity of meeting a large British importer in July. Further particulars may be obtained by writing Box 7, Canadian Dairyman and Farming World, Toronto, Ont.

GIFFAN MILK-BY B. D. Belcher, M.D. in clean book, the author sets forth practical means for the exclusion of bacteria from the milk, and the prevention of contamination of milk from the stable to the consumer. Illustrated, by J. H. Belcher. Cdn. Dairyman and Farming World. Our complete catalog of dairy books sent free on request.