

the first question of my correspondent would be—much, every way. From the time that the cheese-factory system began to extend beyond the immediate region where it originated, and American cheese became an article of export in any considerable quantity—say, from 1861 down to the year 1865, the great complaint of cheese-dealers, shippers, and English consumers, was the porosity, bad flavour, and ill-keeping quality of American cheese. These three ailments seemed to exist together almost invariably, and they condemned the product of our dairies to a very humble place in the markets of Great Britain. How to avoid these ills became the study of cheese-makers, but up to about 1865 the agency of acidity or souring the curd to a certain extent, to accomplish this purpose, was little understood and less practised. The fear of having sour cheese had deterred cheese-makers from venturing into this unexplored and forbidding field of inquiry. The cheese generally produced at that time was full of holes, and if not used when about thirty days old, it speedily took on a sharp, pungent, acid flavour, very objectionable to those whose tastes in cheese are educated to appreciate a really fine article. Thoughtful cheese-makers noticed that sour cheeses were invariably solid—very nearly or quite free from these pores or holes—and this observation led them at length gradually to experiment and see whether this same acidity, which in the form of sour cheese was very objectionable and dangerous, might not be used to advantage if carried to a certain limit and kept well under control. The result was successful beyond the highest expectations of the few cheese-makers who here and there had been investigating the matter, and eventually there was wrought a revolution, quiet and unostentatious, and yet real and wide-spread, in the system of cheese-making in the best dairy regions, and in the principles governing that system. At first the idea met with opposition, sometimes with ridicule, but it has won its way into almost universal practice. I remember that at the Dairymen's Convention in 1864, when this idea of purposely souring curd slightly first began to be broached, a gentleman largely and successfully engaged in the manufacture of cheese in Western New York opposed the new idea very strenuously, and in the report of the operations of his factory for that year, he says:—"I want the milk to be sweet when set, want it sweet during the working, and want the curd sweet when put in press. I have no sympathy for sour milk or sour cheese." The next year he came to the Convention a thorough convert to the new principle in cheese-making, which he had before so vigorously opposed. A proper degree of acidity or souring or "changing" in the curd before removing it from the whey, or at least before salting, results in a cheese close and solid in texture, purer and cleaner in flavour, and of a character to retain that

purity of flavour in our warm climate a much longer time than it otherwise would. With such cheese, too, there is far less trouble from huffing or bulging and from getting out of shape, than with softer descriptions of cheese. Of course it is a fine point to be able to tell precisely the condition of the curd at this stage, and to know how far it is safe to allow the acidity to advance. And it is just here that bungling and incompetent makers fail, and it is here that the arguments of those who consider cheese-making merely a mechanical operation, are refuted. To the second question advanced by this cheese-maker, I will give a moment's attention. Ordinarily the hardening of the curd takes place at the same time that the acidity or "change" mildly puts in an appearance. Indeed the former is an indication of the presence of the latter. And yet the hardening may occur without the souring, at least to a good degree, for the term "hardening" is too general and indefinite a term when applied to curd, to enable one cheese-maker to determine just what is the condition of a curd which another maker calls "hard," unless he can see and handle it. If I was troubled with curds hardening prematurely I would use less heat, and apply it very slowly and gradually. Many good cheese-makers believe that a temperature of 90 degrees to 94 degrees gives better results in cheese-making than to warm the curd to 98 degrees or 100 degrees, always provided the milk is in a condition to give full and ample time in elaborating it into cheese. The third question proposed has been partially answered in the remarks that have preceded. Curds taken out when perfectly sweet, cure faster than those which are allowed to sour a little; indeed, such cheeses are generally fully ripe and ready for the knife when thirty days old. If not promptly used then, they deteriorate in quality and assume a sharp flavour—go into a species of decay, in fact. Cheeses thus made are quite unfit for export, but frequently are better liked by retailers in our home market than the closer-made and more tasteless ones which suit the foreign market so well. Where such cheeses are preferred, and meet with ready sale and full prices, it is more profitable to manufacture them, because a slightly larger yield of cheese is obtained from the milk than by the other process.—GARDNER B. WEEKS, in *Cultivator*.

PHILADELPHIA BUTTER.—One of the Philadelphia dairymen, who never sells for less than a dollar a pound, puts up his butter in pound rolls stamped with the same stamp his father used, and it is said that not a pound of inferior butter ever went to market with that sign upon it. He keeps his milk pantry at a temperature of 55 degrees Fahr. Philadelphia butter has obtained a high reputation for its delicate colour and exquisite flavour, which in all first-class butter are due almost entirely to the cleanliness and care used in the manufacture.

Horticulture.

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Fruit Growers' Association—Autumn Meeting.

DISPLAY OF FRUIT.

The Fruit Growers' Association of Ontario held their autumn meeting at Goderich on Friday, the 15th September. There was an extensive display of fruit, which was exhibited in the Drill Shed, where the Goderich Horticultural Society were holding their Fall Show. The combined collections of fruit were very fine. Most of the day was taken up in the examination of the fruit on exhibition, and it was not until four o'clock in the afternoon that the Association met in the Court House for the discussion of matters of interest to themselves.

The prizes offered by the Association were keenly contested. In the twenty varieties of apples the prize was taken by Mr. John Freed, of Hamilton, who also carried off the premier prize for the best twenty varieties of pears, and for the best dozen quinces. In apples, Mr. J. Stewart, of Goderich, was second, and Mr. James Terrance, of Porter Hill, was third. These were all very fine samples of fruit. In the twenty varieties of pears, Mr. Geo. Leslie, Jr., of Toronto, was second, and Mr. M. D. Baldwin, of Brantford, was third. The collection of pears to which the premier prize was given was one of the finest samples ever exhibited in this Province.

The collections of grapes were exceedingly fine, and some of the samples laid upon the table for exhibition merely were such as to call forth expressions of astonishment from every one. Three bunches of the Wilder grape (Rogers' No. 4) were of surpassing size and beauty. They weighed respectively sixteen, eighteen, and twenty ounces, and were the growth of Mr. Matthew Bell, of Hamilton. It was stated by gentlemen at the meeting, who had seen the grapes growing on the vines, that no ringing of the vines had been practised. The highest prize for the best collection of ten varieties of grapes was given to Mr. W. Haskins, of Hamilton; the second to Mr. John Freed, of the same place; and the third to Mr. A. M. Ross, of Goderich.

The display of plums was very fine, though the greater number of fine varieties had been ripe for some time, and were mostly gone. Goderich and vicinity has been famed for fine crops of plums of the highest quality, and it was to be expected that the prizes in this fruit would be carried off by gentlemen resident there. The highest prize was won by Mr. A. Watson, of Goderich, and the