

From information at present available it would appear that the increase in fuel-consumption when pasteurizing with live steam is from 15 to 20 per cent. A saving, however, may be effected in this direction by having exhaust steam from the engine connected to the heater.

Some dairy companies contemplating the installation of a pasteurizing plant may be inclined to delay on account of the scarcity of water available for cooling purposes; but as the regenerative heater delivers the milk to the cooler at a temperature of 125°, and it requires only to be further cooled to setting-temperature—86° to 90°—it will be seen that no very great quantity of water is required. Where water is somewhat scarce a saving can be effected by installing a small pump, and pumping the waste water from the cooler to overhead tanks. This water is, of course, perfectly clean, though slightly warm.

In the manufacture of cheese from pasteurized milk practically the same treatment should be applied as in dealing with non-pasteurized milk under normal conditions. Extreme care must be taken to guard against the possibility of the milk becoming in any way contaminated during the process of pasteurization. Only the best-quality drawn brass piping should be used where piping is required. In order to facilitate cleaning, the piping should be joined by brass unions in fairly short lengths. Every part of the plant with which the milk comes in contact should be thoroughly cleaned as soon as possible after the machine is stopped.

A good starter is, of course, essential in either case; but in working with pasteurized milk, which is practically free from bacteria, the influence of the starter is naturally much more prominent. Consequently, in the manufacture of cheese from pasteurized milk only the best-quality starters should be used.

The best pasteurizing-temperature to aim at is from 160° to 168° F. In the very late autumn it will be found advisable to fix the maximum temperature at 160°. A temperature lower than 160° is not sufficient to destroy all the injurious germs, while, on the other hand, the curds obtained from milk heated to 175°–180° are always more or less broken, and, in addition, usually develop a slightly scorched flavour.

The use of a quantity of hydrochloric acid for acidulating the milk before adding the rennet has been tried in some cases; but, except when the milk was heated to high temperatures, practically no difference in the nature of the curds was observed. When heating the milk to temperatures of 175° or over, the addition of