

Cheese-Making.

At the present time, it is an object of considerable consequence to the manufacturers of cheese in this country, to produce that which would be approved and meet with a ready sale in the English markets, whither a large quantity of that article is now being sent. One of the most esteemed varieties of English cheese, is that made in Cheshire; and, having had frequent inquiries in regard to the process of manufacturing this kind, from those who are desirous of imitating it, we give from the Journal of the Royal Agricultural Society, a brief sketch of a prize essay, by Mr. Whue, on Cheese-Making in Cheshire.

The number of cows belonging to a cheese-dairy, is stated to be seldom less than 8 or 10, or more than 70 or 80. From 18 cows, a cheese from 36 to 54 lbs. weight, is made daily for four or five months in the summer. The annual produce, however, varies with the cows and mode of keeping, and it is observed that *great loss is known to have been sustained by not feeding the animals well in winter*.

The milking is performed in cow-houses all the year, and it is usual to have a milker to every six or seven cows. The milk of newly calved cows is not mixed with that of other cows till four or five days after calving.

The evening's milk is seldom made into cheese till the following morning, and in small dairies, sometimes not till the second morning. A cool milk-house is necessary, and hence it is commonly placed on the side of the house (or other building) least exposed to the sun. Most milk-rooms have lattice or wire-woodwork for the circulation of air, and an inclination is given to the floors for the free escape of the cold water which is daily applied to them in summer. Precautions of this kind are necessary to prevent the milk from becoming sour. A temperature of fifty degrees Fahrenheit is thought the best throughout the year.

The dairy is generally near the milk-house, and fitted with two boilers; one for scalding whey, and another of less size for heating water. The salting and drying house should adjoin the dairy. Here cheeses are placed on stone or wooden benches, salted externally, and dried, before removal to the cheese room. Some dairy-maids dispense with external salting. Sometimes the cheese-room is over the dairy, and at others it is over the kitchen, or other apartment in which a fire is kept. Light and air always excluded from it by curtains or shutters; and one reason assigned for the practice, is its tendency to prevent the hurtful effects of the fly. Some of the larger cheese-rooms are warmed by stoves or hot-air, and in rare instances, from ordinary fire-places built in them.

Process of Cheese-Making—The extraction of the whey, and salting, occupy from five to seven hours, and it is therefore convenient to commence working in the morning. In this case, the evening's milk is kept over night, and in the morning the cream is skimmed off, and a portion of the milk warmed. The warming is effected by means

of a brass or tin pan, about 20 inches in diameter, and eight inches deep, in which the milk floated in the boiler, the water in which has been heated to a temperature of 101 degrees, a heat seldom exceeded, except with a view of saving trouble in the after process. The cold milk is poured into the cheese-tub, and the warm added to it. The temperature of the mixture may be about 75 degrees, but in warm weather 70° will be enough. It is, however, becoming the general practice, in summer, not to warm the evening's milk; and in very warm weather, even the temperature of the morning's milk is sometimes reduced. The cream, diluted in about double quantity of warm or new milk, is next put in. If a small portion of the cream is to be retained for butter, it is thought best to skim it off the whole surface of the cream before diluting, in order to remove froth and bubbles, which is considered prejudicial to the cheese. This leads to the conclusion, that fired air in the curd is detrimental, and suggests the inquiry whether it might not be better to heat the whole of the evening's milk to the required temperature, than to raise the temperature of a part of it to 100 degrees. The next step is to add the new or morning's milk, which is done by passing it through a sieve placed on the cheese-ladder over the cheese-tub. Bubbles seen floating on the surface are skimmed off, and passed through a sieve to break them.

An important point now demanding attention is the proper temperature of the milk when rennet is put in. Little is known among farmers and dairy-maids as to the precise heat which is best; and it is seldom that the temperature is tested otherwise than by hand. In some dairies in which observations were made, the lowest heat was 77 degrees. Even where what is called cold-cheese, which has a tendency to green-mould, is made, it is not supposed that a temperature is adopted at any season of the year, much under 74° or 75°. The evening's milk being about 70° and the morning's milk from 90 to 95 degrees, the temperature of the whole is found to be from 80 to 85 degrees. The exact heat at which milk ought to be coagulated is a matter of essential importance in cheese-making, and it can only be ascertained by a series of careful and judicious experiments, made by scientific and practical parties.

The rennet or steep is now to be added.

* The following is given as a good recipe for curing mow-skins. Procure fresh skins the day before they are wanted; free them from chyle and every impurity; turn them inside out and salt them, lay them one upon another, with salt between, in deep earthenware vessels; cover the whole over with salt, and lay a lid on the top. About a month before using them, take them out and drain the salt from them, then spread them on a table, and order them on each side with fine salt. In this state they are to be rolled with a paste roller, distended with splints of wood, and hung up to dry.