

dairies, famous for "Isigny butter" of the highest quality, the practice is to skim the milk after it has stood twelve hours. Of course the total yield of butter is not so great as it would be if the skimming took place after the milk had been longer set, but the butter made from this early-skimmed cream is so excellent and delicate in flavor that the loss in quantity is more than made up by the good prices the makers obtain. In other dairies the cream is allowed to sour, and is not taken off the milk until the milk has "turned." The farmers believe that they obtain a larger yield of butter by this means, and they find that it induces a fuller flavor, which finds favor with some consumers. This butter also keeps better if thoroughly well made.

The cream is churned twice or three times a week, the days being regulated by the weekly markets of the district. Generally the true Norman barrel churn is used. The axle of this churn is horizontal, and the motion is generally obtained by horse-power, except on the larger farms, where water or steam is available. The churn is about half filled with cream at a temperature of about 57 degs. to 59 degs. Fahr., and from 30 to 40 revolutions per minute, according to the season, is the usual pace. As a rule, the butter comes in about 40 minutes, the slightest alteration in the sound of the churning cream being most intently waited for by the attendant dairy-maid. As soon as ever the small granules show on the tester, the churn is stopped, the greatest importance being attached to stopping the churn exactly when the butter has formed. To churn the butter into a lump is considered very bad management. The butter having come, the butter milk is run out at an opening in the bottom fitted with a sieve to intercept the butter particles. When most of the butter milk has been withdrawn, fresh spring water is put into the churn until it is half full. Three or four turns of the dashers are given, and the mixture of milk and water is again withdrawn as before. This process is repeated four or five times till the water which comes out of the churn is as bright and clear as when it was put in.

Where salt is used, it is almost invariably mixed with the butter in the churn in the form of brine, the granular form of the butter greatly favoring its thorough amalgamation. In this way the butter can be salted to the greatest nicety by means of careful washing after the brining process, thus modifying the strength of the salt to the required taste.

When removed from the churn the butter requires no more working than what is necessary to consolidate it and press out the particles of clear water. In some dairies the *de'aiteuse* is used to dry out this water; in others again it is used at an earlier stage instead of the frequent washings. When so used it is claimed that the final flavor is not so apt to be lost as by so much washing, and I incline to favor its use at the early stage.

It is perhaps not possible in every district in Scotland to produce such good butter as is made in Normandy, for there are few districts where the pastures are as rich. But careful enquiry and observation during a recent visit convince me that, other things being equal, the scrupulous care not to overchurn the butter is probably the great secret of success. The cleansing, and we may almost say the working, of the butter is performed within the churn, a thing that would be impossible were the granules destroyed, and the butter churned into a lump. Another point to be noted in their practice is the careful attention bestowed on maintaining the temperature of the milk room, where the cream is set as even as possible. The influence of temperature in hastening or retarding the use of cream is, I am afraid, a point much neglected by Scotch butter-makers. The flavor of butter is not a little intensified by atmospheric action.

One other point forced itself on my attention. I could not but notice the pride every Norman farmer's wife takes in the dairy, and how delighted she was to conduct the visitor over every part of the premises, and to call his attention to every portion of the work. It was very suggestive, too, to see how eagerly they enquired about the new processes and improvements. Their criticisms convinced me that it is the Norman farmer's wife that is the greatest secret of his success as a butter-maker.

### The Farm.

#### Grass and Clovers.

III.

Having in the previous issues briefly described the principal grasses, we will now review the most important clovers.

RED CLOVER (*Trifolium pratense*) is a plant that was already known to the Greeks and Romans before the Christian era, and was cultivated in Britain more than two and a half centuries ago. It belongs to the leguminous family, which although very rich in nitrogenous compounds (albumen and gluten), have, unlike the cereals (which are comparatively poor in these compounds), not much difficulty in obtaining their supply of nitrogen. Red clover, possessing this characteristic of the group to a very marked degree, and having a very extensive network of roots, enriches the surface soil in vegetable matter, even if the upper portion of the plant has been entirely removed. If grown under favorable conditions, this plant is very valuable in the destruction of weeds, for by its vigorous growth it chokes, or at least checks, them. These qualities make it very valuable for green manuring. A rich heavy soil, possessing an abundance of calcareous matter, is best adapted for its cultivation, and light sandy or water logged soils are least suited for its growth. Its roots are very long and have been found to weigh as much as the remainder of the plant. They reach their greatest size if the plant is left to mature its seeds, and are least developed if the plant is continuously cropped. There are two varieties of red clover grown here; one is a biennial and the other a perennial. The former is what is known as the Common Red Clover, Broad-leaved Clover, or Meadow Trefoil. To this variety botanists give the above Latin name. The other variety, botanically known as *Trifolium pratense perenne*, is called Mammoth Red Clover, Perennial Red Clover, and in some parts of England, Cow Grass. The difference between these two varieties is that the Mammoth Red Clover blooms about three weeks later (about the same time as Timothy), is somewhat coarser, possesses narrower leaves, larger, opener, and brighter heads, bears seeds more abundantly, and is supposed to grow on poorer soils than the Common Red Clover. To obtain a catch of clover, the seed-bed should be well prepared, and the seed sown early in spring. Dressings of gypsum in quantities of 150 to 200 lbs. per acre are very beneficial to this crop.

ALSIKE CLOVER (*Trifolium hybridum*), is a plant, which in appearance is intermediate between the Red and the White Clover. This intermediate position had led to the belief that it was a cross between these two plants, but this opinion is now generally abandoned. It grows indigenous in several European countries; but being first cultivated in Sweden, it was first exported by that nation. A heavy low-lying soil is best adapted for its cultivation, and it thrives better in a moist than a dry season. It is a hardy plant and a true perennial, producing the greater bulk of its growth in the fore part of the season. Although quickly regaining its growth after being cut, it produces but a small aftermath. Unlike Red Clover, it does not turn quickly to woody fibre if allowed to grow after the commencement of bloom. It is fit to cut at about the same time as Timothy, and thrives well together with this grass, which is a friend of the

same rich, deep, low-lying soils. The Alsike, having an abundance of leaves and a fine and slender stem, frequently lodges, unless kept in its upright position by some strong grass. If lodged it should be cut as soon as possible, for in this position it is very liable to rot at its base. It frequently grows on a cloversick soil. The plant produces a large quantity of seed, easily collected, and has not been known to suffer much from the clover midge. The straw after being threshed is still very unwholesome. The seed must be taken from the first crop, the aftermath not being adapted for this purpose. This clover blooming for a long period of time, and the bees being able to reach the nectaries to extract the honey, is much recommended by bee-keepers. It is a very valuable clover for agricultural purposes, but requires two or three years growth before giving the best returns.

(To be continued.)

#### Ensilage.

In the report of the Elmira Farmers' Club, as given in one of our exchanges, we find the following reference, which very largely agrees with what we have said on the subject in previous issues of the ADVOCATE:—

"No member considered corn ensilage to be superior in feeding value to the dried stalks. One of the members said that in both methods of preservation there was some loss. Authorities did not agree as to the relative feeding value of a ton of green stalks saved by ensilage and the same weight saved by drying. In both cases loss was perceptible, but probably less by proper drying than in ensilage, but the condition of ensilage secured consumption more fully, and, perhaps, more than compensated for the difference in assimilable nutriment. As to saving grass from meadows in silos it was safe to say no economy would be found in the process, especially as ensilage, no matter what substance be employed, was not good as a whole diet. Well-cured grass of the best varieties was worth more in the form of hay than it could be if saved in silos, for if dried, it was subjected to less injurious changes in its composition and was quite as palatable as the best ensilage, while it was safer to feed. It was possible that enthusiastic advocates of silos might say that they offer the best means of preserving good grass, but it was doubtful if there was one good reason for the claim. The experiment had been tried, but never with profitable results."

Sprinkling plaster in the stables will absorb the ammonia and preserve it and the horse's eyes.

In a report of a Farmers' Club in one of our American exchanges, a speaker recommends scattering over a newly-planted potato field slices of potatoes poisoned with Paris green. By this method the potato beetles were frequently entirely destroyed before the newly-planted potatoes appeared above ground. This plan is at least worth trying.

Farmers should do all they can to make their lives pleasant. One way to do this is to have our surroundings attractive and tasteful. Neatness and cleanliness will add much to the pleasure of a home. Unsightly objects should be removed and a few flowers planted. These things are not only beautiful to the eye, but they have a higher and better use in the way of sanitation.