

The Dairy.

Preservation of Green Fodder for Dairy Cattle.

A supply of succulent and nutritious fodder for winter use is or ought to be one of the chief objects of the dairyman; for how ever successful he may be in securing his hay and other fodder crops in the dry state, these can never produce the same quality or quantity of milk that the same substances do when fed in their green and natural condition. A method of preserving fodder crops by *ensilage* or pitting has of late years been tried successfully in France, the process being, with some slight variations, as follows: A quantity of lucern is cut late in autumn and immediately thrown into an ordinary pit (*silos*) of about twelve inches in depth. Here it is trodden down firmly and covered with a layer of one and a-half or two inches thick of clay, the whole being afterwards covered with a fourteen to sixteen inch coating of common earth. Seventy-five tons of green clover treated in much the same manner with the exception that the pits were thirty inches in depth, turned out well, and was eaten with avidity. The same with the leaves of beets, carrots, &c.

The advocates of the "*cushage*" system claim that the process prevents the loss of the leaves which occurs when it is made into hay, and that although the cost of the process is greater than that of haying, yet it has the advantage that the work can be done at any season when the weather is neither dry nor warm enough to make hay, and that the latest cuttings may be saved without damage or loss of quality.

Maintaining the Full Flow of Milk.

During September and October they who have good cows and know how to make prime butter, should not allow the yield of milk to run down if it lies in their power to prevent it. As the pastures begin to fail in supplying food of the best quality for the production of milk, they should produce food from some other source. It is not well, as a general rule, to turn cattle into mown fields after haying, on account of the damage likely to be done to the next crop of hay. Still, if the grass was cut early and a second crop is abundant, it is well to allow cows to feed down the grass when it is in the best condition to produce milk. The supply of milk may be kept up in this way and an opportunity be given to get the pastures in better condition to produce feed. This may be done by the use of the scythe or mowing machine. The seed stalks of the grass will be cut as well as the weeds, thistles and bushes. When this is done the grass will be of better quality. By keeping the cattle out of the pasture a week or two after it is mown, they may be returned to it. At this time in the season it is well to cut the suckers out of the corn field on account of the advantage to the corn crop. No better use can be made of these than to feed them to the milch cows. It is also well to allow the cows a small feed of cornmeal or bran once a day. Cows often crave some sort of dry food at this time of the year. They relish an occasional feed of dry hay and derive a good deal of benefit from it. Of course attention should be given to the supply of salt and water. If insects are troublesome it is well to milk the cows in the barn. By attention of this kind the flow of milk may be kept up till the latter part of the growing season, when butter may be made that will keep till the next summer. —*New York Herald*.

Roquefort Cheese.

The *American Grocer* thus translates from the French the manufacture of Roquefort cheese, said to be the finest in France. It is the product of ewes tended with great care, being fed in the winter or preserved grapes, and their drink consisting of water whitened with barley flour.

In the summer they feed on the choicest artificial pastures, and are watered at brooks warmed by the rays of the sun; they are carefully guarded from all excitement from dogs or other animals, and every detail is studied that can affect the quality of their milk. The milk is taken from the sheep morning and evening, in iron pots lined with tin. It is carried in these to the farm house, where it is skimmed, strained and warmed, though never to the boiling point, the temperature depending upon the state of the weather. After this it is placed in large, deep pans for the cream to accumulate. A great amount of ex-

perience as well as a fine discriminating sense, is required to decide as to the milk which is fittest for cheese and for butter respectively. This point having been decided, the morning and evening milk, which had hitherto been kept apart, is mixed, and the milk in the pans is then stirred with willow sticks by the milkmaids. The covers are put on the pans and the pans and the milk is allowed to rest, rennet having been added. Following this are several processes, such as breaking, squeezing, and filtering the curd, moulding, milling and draining. In one of these processes the new cheeses are rubbed with mouldy bread, the latter entering into the composition of the cheese, and imparting to it the necessary green ripeness.

This bread is made from the finest wheat or barley; it contains a quantity of the strongest yeast; it is thoroughly baked; after the crust has been removed it is pounded in a mortar; it is then allowed to be in a damp place until every crumb is touched; it is sifted, and when so prepared the mould actually grows through the cheese like a plant. The remaining milk is next drained off, the cheeses being placed on ground shelves for the purpose. After this the cheeses are turned twice a day for a week, and subsequently go to the drying room, an excavation facing the north, kept perfectly clean, and having metal or canvas blinds for the exclusion of dust and flies, and lined with linen-covered shelves, on which the cheeses are kept warm by relays of pails of boiling water.

The cheeses next pass into the cellar, being packed in cases of special construction, and loaded in vans slung below the axles to avoid the jolting, which would ruin them. The transit to the cellar also takes place in the night to avoid the heat of the sun. At the scale chamber the cheeses are examined, weighed and registered. This, however, is not the last stage a Roquefort cheese goes through. They are covered with salt, one surface at a time, and after two days have elapsed the salt not absorbed is rubbed in with a rough Dutch cloth. The cheese is afterwards scraped over to remove a glutinous covering or crust, and in a little over a month the cheese is ready for market. The removal of this coating of the cheese affords ample employment to a number of girls called *Cabaneres*, from the ancient designation of the Roquefort cellar, which was "cabin." The chief brand of the Roquefort cheese is that of the *Societe des Caves Reunies*, which brings from fifteen to twenty-five francs per cwt. more than any other brand of the same. About 400,000 sheep contribute their milk to make this cheese, which is the choicest French kind.

Food for Dairy Stock.

From advance sheets of "*American Dairying*," by L. B. Arnold, we copy as follows:

We copy from the table of Wolff & Knop, as quoted by S. W. Johnson, the nutritive and heat-producing values of some of the different kinds of winter food in common use. It may be of some advantage in adapting the different values to each other. They are arranged in the order of flesh forming material:

	Albuminoids.	Starch, Sugar, Gum, etc.	Fat.
Oil Cake	23.3	41.3	10.0
Bean Meal	25.5	45.0	2.0
Pea Meal	23.4	52.3	2.5
Alfalfa Clover in blossom	12.3	20.2	3.5
White Clover in blossom	14.9	31.3	3.5
Rye Bran	14.5	53.5	3.5
Lucerne in blossom	14.4	22.5	2.5
Wheat Bran	14.0	50.0	3.3
Red Clover in blossom	13.4	23.6	3.2
Oats	12.0	40.9	6.0
Orchard Grass	11.6	40.7	2.5
Rye Meal	11.0	60.2	2.0
Meadow Fox Tail	10.6	39.5	2.6
Corn Meal	10.0	65.0	7.0
Timothy Hay	9.7	44.8	3.0
Barley	9.5	60.6	2.5
Buckwheat	9.0	22.6	2.5
Common Hay	8.2	41.3	2.0
Pea Straw	6.5	35.2	2.0
Corn Stalks	3.0	39.0	1.1
Barley Straw	3.0	32.7	1.4
Oat Straw	2.5	33.2	2.0
Wheat Straw	2.0	30.2	1.5
Potatoes	2.0	21.0	0.3
Ruta Baga	1.8	9.3	0.1
Carrots	1.5	10.8	0.3
Turnips	1.1	5.1	0.1
Beets (Sugar)	0.8	15.4	0.1

As a part of the heat-producing food must be fat, it has been placed in a separate column.

There are so many circumstances that vary the quantity of food required for the daily use of a cow, that no precise figures can be set down as representing the exact amount of the different elements necessary for her to subsist upon, but the following may be regarded as approximately correct for a cow weighing 800 lbs. when not in milk. Her daily food should contain at least—albuminoids, $1\frac{1}{2}$ lb.; starch, sugar, etc., 8 to 10 lbs.; fat, $\frac{1}{2}$ lb. With a large flow of milk the albuminoids would need to be doubled, the starch, etc., increased one-half, and the fat doubled. From this it may be seen how to proportion the several kinds of food to adapt them to each other, so as to use them with economy. If the food be used dry an allowance of $\frac{1}{2}$ should be made for imperfect digestion. If cooked or steamed the digestion will be perfect and the whole amount may be counted. This amount will be re-

quired for cattle provided with warm and comfortable stables and kindly cared for. If they have no other protection than an open yard or shed, one-half more should be added to the quantity named. This may seem a large allowance, but experiments made at the barn of the writer, and tested by actual weights, have demonstrated this difference between comfort and exposure, and the experience of hundreds of others have corroborated it. —*Boston Cultivator*.

JUMPING COWS.—I had a steer a few years ago that was in the habit of jumping, and I tried the horse tamer's girdle, made like any blanket surcingle, only stouter; and attached to the girth, on a level with the forearm of the creature, a wide strap at right angles, one on each side, and these straps passed around the fore arm, passing between arms on inside, and coming round to buckle on girdle on the outside, and buckling up tight enough to shorten steps some. Do not put it on too tight; they would stumble over a six inch rail lying on the ground. Any person can make one by passing over the back a girdle, and then the right angle strap each side of brisket as high as can be on a level, and bring strap around forearm to girdle and buckle the fore arm back to the girdle where the strap is fastened on. This fetter is out of danger of getting hung by, and does not obstruct feeding in the least, and yet they cannot jump a two-foot fence, for they won't dare. I believe this sureproof. There is only one objection to it; it will wear off the hair on the forearm. I should recommend taking off every night and yarding to rest them. —*Cor. Massachusetts Ploughman*.

COTTAGE CHEESE.—Those who have plenty of milk and make butter have an abundance of sour or clabbered milk daily, clean and fresh, which is the article desired to make cottage cheese. The true way to make this sort of cheese is to skim the sour milk and set a gallon or two of the milk on the stove in a milk pan and let it gradually warm till it is lukewarm all through. Stir it occasionally to prevent its hardening at the bottom. When it is a little warmer than new milk, and the whey begins to show clear around the curd, pour it all into a coarse, thin bag, tie close and hang up to strain. Let it hang up two or three hours in a cool, shady place, then take from the bag and put the contents in a covered dish. When preparing it for a meal mix with the curd rich, sweet cream, sugar and nutmeg. Some prefer salt and pepper, but the sugar will give it the flavor of fruits or acids. This preparation of milk will often be found most salutary and wholesome for dyspeptics and weak, inflamed stomachs. The clabber is also very nutritious and easily digested.

BRINGING THE MILK.—Mr. Fawcett said his men had frequently come to him and said, "Such and such a cow was dry; I cannot get a drop of milk from her." His answer was: "Go and get a can and come with me." The man had laughed and said: "It's no use, Sir." However, he had placed the man on one side of the cow to milk and her calf on the other side to suck, and they had come away with six or eight quarts of milk from one side of the cow. Therefore, they must not form a hasty conclusion that they had got a very bad milker, for he had often found that by letting the cow's own calf suck on one side they got double the milk from the other side. He always lets a young calf suck on one side while they milked on the other, and one of his cows called Ruby had frequently had two calves sucking, and supplied the whole of his household, consisting of 12 persons, with milk and butter. (?) But if they had taken her calves away from her they could not possibly have got the quantity of milk. They had no idea how it encouraged a cow to give her milk by placing her calf by her side and letting it suck. —*London Agricultural Gazette*.

CURIOUS CHEESE-MAKING PROCESS.—Among the curious methods for the manufacture of fine cheese, the process adopted by Mr. Joseph Harrison of Derbyshire, England, will be of interest. The curds are not scalded, no heat being applied after the milk is set for coagulation. The expulsion of the whey, or its separation from the curds before being put in the hoop and under press, is being accomplished by a process quite different from anything known in practice in this country. But what will be surprising, perhaps, to most of our factory cheese makers is the fact that the cheese made under this process is of the finest flavor and quality and sells in the best markets of England for "top prices" on a par with English Cheddar, which ranges from twenty shillings higher than American cheese.

MR. ARNOLD gives the following characteristics of properly ripened cheese: "Well ripened cheese has no elasticity when pressed with the finger; it feels as if breaking under the pressure, and the dent remains; it has a salvy, oily appearance when worked between the thumb and finger and melts on the tongue like a ripe pear; the cut surface remains soft and oily for a long time, not readily drying up. Unripe cheese, on the contrary, is elastic when pressed, hard or tough when worked between the thumb and finger; soon dries and cracks when exposed to the air; when tasted by the tongue is found deficient in fat and does not dissolve readily."