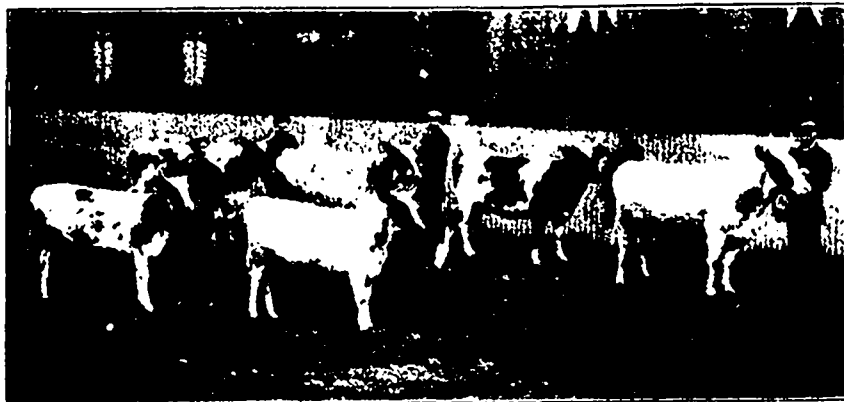


hay has lost much of its valuable protein and carbohydrates. Both in regard to cutting clover as well as timothy the farmer will have to be governed to a large extent by the acreage he has to cut in deciding upon the best time to do it. If, for example, he has a large acreage of clover it would be well to begin cutting on the early side so that none of the crop will get over ripe. The same would apply to timothy.

As to the methods of clover-haymaking three practices are largely followed. Under the first system the clover is mown as soon as the dew is off, and by frequent turnings, aided by bright, hot sunshine, it is ready for raking in the afternoon and housing before five o'clock in the afternoon, when the gathering dews prevent further operations. Under this plan the clover must be well ripened, indeed, past its prime, for hay, and the weather very favorable if good results are to be obtained. The second plan is to cut the clover so late in the afternoon that the dew does not materially affect the plants because they have as yet wilted but little. On the following day haymaking proceeds as quickly as possible, the crop being placed under cover before nightfall. Under the third plan clover is cut after the dew is off, and remains till the afternoon, when it is gathered into windrows, and from these into cocks before the dew falls, which stand several days, undergoing a sweating process. After sweating, the cocks are opened in flakes, which give off moisture rapidly, and the hay is soon ready for the barn. When curing in cocks it is a good plan to have caps for covering in case of rain.



Group of young Ayrshire Cows, imported by the Isaleigh Grange Stock Farm, now in quarantine at St. John, N.B. For particulars see our Stock Notes column in this issue.

As to the best plan to be adopted the hay-maker will have to be governed largely by his own conditions. In any case the utmost care should be exerted in preserving the leaves or finer parts of the plants, which are liable to be wasted, leaving only the coarse woody stems to be gathered. The clover plant should never be placed in barn or stack when carrying external moisture, dew or rain. This outside moisture seems to be more detrimental in curing hay than the natural sap of the plant. It is very injurious to allow clover hay that is any way wilted to be scattered over the ground when the dew is on. In harvesting Lucerne or alfalfa there is more danger of loss from the smaller parts of the plants falling off than with ordinary clovers. For this reason making hay from this plant should be carried on with the greatest care. Alsike clover continues longer in a condition to be cut than the others, even when the heads are nearly ripe the stalks and leaves are in a good condition to make very good hay.

Salt and lime scattered over hay when it is put into the mow tend to prevent fermentation and check the growth of moulds and mildews. Salt renders hay more palatable. These materials are not essentials in hay-making, but are helpful when partially cured hay is being stored during bad weather. Some recommend placing damp hay in alternate layers with dry straw. The straw absorbs moisture from the hay and so improves in quality.

Apple and Forest Tent Caterpillars

According to reports the apple tree and forest tent caterpillars are doing considerable injury in some localities. The ravages of these pests have become so bad in Eastern New York State that the Cornell University Experiment Station has issued a special bulletin on the subject. Nearly everyone is familiar with the apple tent caterpillar, and especially its large silken tent used as a nest. It is the work of only a few moments to wipe out with a rag or burn out one of these tents with its writhing mass of worms. The sooner this operation is performed after the nest is begun the easier and more effectual will it be.

Wild cherry trees along roadsides are a favorite breeding place for the apple tent caterpillars, fall web worms, and other injurious insects, and when they become affected should be destroyed. Farmers should familiarize themselves with the egg masses of this caterpillar for one of the easiest and most effectual methods of controlling the pest is to collect and burn these egg masses at any time between August and the following April. It is a good plan to pay the boys and girls a few cents for each score or hundred of the egg masses they collect.

Those who spray their orchards thoroughly with bordeaux mixture, to which paris green or some similar poison has been added at the rate of one pound to 150 gallons of the bordeaux, report little trouble in controlling apple tent caterpillars by this method alone. The first application should be made just before the blossoming period, when the caterpillars are very small and require but little poison to kill them; the second spraying should follow as soon as the blossoms have fallen, and a third application is usually necessary and advisable about a week or ten days after the second.

The apple and forest tent caterpillars are two distinct kinds of insects, but are closely related to each other, and have practically the same general life-history, differing only in some details of habits. During early June the caterpillars select a place where they undergo their wonderful transformation. This may be a leaf on or under the tree on which they feed, or some angle in a house or rail fence may afford a more suitable place. Here the caterpillar spins for itself a cocoon within which it soon changes to a curious brown object known as a pupa. In about ten days or two weeks after the cocoon is spun there emerges from it the adult insect, a buff brown colored moth, marked with a slightly darker band across each wing. These moths fly mostly at night, and are often attracted to lights. Soon after emerging the female moths deposit their eggs in masses of about two hundred each around the smaller twigs. The eggs thus deposited early in July, and which are covered with a varnish-like substance, will remain unhatched until the following April. Thus there is but one brood of caterpillars in the year.

The forest tent caterpillars never make any tent or nest like the apple tent caterpillar. The only approach to one is a thin carpet spun on the bark or sometimes over several terminal leaves on which the whole family usually rest in a cluster during the day or when they are shedding their skins.

Fortunately both caterpillars are preyed upon by many enemies, including insects, spiders, toads and birds. When the forest caterpillars confine their work to the forest trees we must depend upon their natural enemies to keep them in check. Where they are present in large numbers in fruit and shade trees the case is quite different, and prompt measures should be taken to keep them in check. In orchards, etc., the methods of gathering the egg clusters and spraying with bordeaux and paris green previously