

this little article to go into a lengthy explanation of the requirements of the colony, or of the way and wherefore of each requirement. Such information, to be complete and comprehensive, to a "green" reader, would fill a dozen or more pages of this journal. The only right way to learn what is required is to learn it from a book, where it is always ready for reference. A great deal could be learned for quick use, however, by a visit to a well-managed apiary, as mentioned before.

WHAT TO DO NOW

To one who is in a quandary as to what to do with his bees in order to assure their successful wintering, such a visit would perhaps help him more than anything else. A few of the prime essentials at this season, however, are: First, each colony should be examined at once to see that it has a good, laying queen. If a queen is present but is not laying, a small quantity of this feed, say half a pint, should be given each night for a week or ten days. This will induce the queen to lay a batch of eggs, which will provide young bees for winter and next spring. Where brood-rearing ceases early in the fall, and is not recommended, the bees in the hive are so old by the following spring that they are not much use, and die off at a very critical time. They would perhaps leave the hive depopulated at a time when, if they had lived ten days longer, the next "generation" would have been hatched to take their places. If no queen is present in a hive now, the colony should be united with a colony having a good laying queen, or they should have such a queen introduced, and then be fed as stated.

MUST HAVE ABUNDANCE OF FOOD

Having a good queen and a large number of young bees, the other prime essential for successful wintering is abundance of good honey, or sugar syrup. Honey gathered from buckwheat is apt to be followed by "honey dew." This when placed in the combs on top of the buckwheat honey, and eaten first by the bees when in their winter quarters, is very liable, in fact, almost certain, to produce unfavorable conditions in the bee's body before spring. Honey

essary to place floats on the syrup so that the bees can take it without falling in and getting drowned. Don't be afraid of making the hives too heavy when feeding. They will be light enough before clover blooms again.

Cutting Corn for Silage

N. C. Campbell, Brant County, Ont.

The season of corn harvest is again at hand. With most this season is forced upon them owing to the early frosts. Others cut their corn according to the knowledge which they have regarding the most profitable stage at which to cut. Too frequently much feeding value is lost that might just as well be saved were the corn allowed to become more fully matured. If the corn is frost-killed one has no other alternative than to cut at the earliest possible moment. In such a case one must cut it at once or suffer loss. This year, owing to the unfavorable wet season at the time of planting, which delayed the seeding operations, much of the corn will require all the time available to properly mature.

Analyses of corn at different stages of maturity show a wide variance in the food elements contained. Between the milk and the glazing stage and on to the final period of ripening there is a constant and remarkable increase in the nutrients stored in corn. In corn that has not reached the glazing stage a large percentage of the albumenoids, or "flesh formers," are in the form of amides. These are of but comparatively little value to the animal. To get the best results we should have this nitrogenous product in the form of albumenoids. This we secure by allowing the corn to reach, or even go slightly past, the glazed state.

Much of the dissatisfaction that has been experienced with silage has been due to cutting the corn too soon. When not matured enough, there is too much sugar present. This ferments and turns to acid making a very unsatisfactory silage. When more fully matured this sugar and other carbohydrates, which are in a transitory stage, become translocated and transformed into starch and other more stable compounds.

Harvesting the corn crop should be delayed until the plants have been allowed to accomplish their full work of gathering, elaborating and loc-

corn harvest until the ear has passed well into the glazing stage. You will then get the best of your corn crop and you will have the most satisfactory fodder or silage.

The Planting of a Family Orchard in Eastern Quebec

J. C. Chapais, Asst. Dominion Dairy Commissioner St. Denis, Que.

In my capacity as a member of the Pomological and Fruit Growing Society of the Province of Quebec, I have always thought it my duty to give all possible information to those of its members and even to outsiders who make a request for it. It is for such a reason that to-day I am here to read before this convention a paper on the creation of the family orchard. I do it to answer numerous questions very often put by those of our members of the eastern section of our province who, knowing that I belong to that section, and that I own an orchard of some extent and of which I have had occasion to speak in the reports of our society, suppose that I can answer them. I do it the more willingly because I have always advocated the creation of an orchard on the land of every farmer.

From the western boundary of our province as far as the Gulf, making an exception for the Lake St. John region and the section contiguous to it in the West under the same latitude, we can grow grafted apple trees, if we make a good selection of those fit to grow under the various latitudes. With respect to my own region, I have for a long time, made the proof of my assertion. To-day, I come to indicate in a few words, what is to be done to plant, almost everywhere, in the eastern part of our province, taking notice of the exception I have just made, an orchard sufficient to provide a large enough quantity of various fruits to permit the introduction in the dietary of the family, of an agreeable and hygienic element of variety.

SITE AND SOIL

The section I have in my mind, while writing this paper, is the one lying east of a line drawn on the map of the Province of Quebec, from top to bottom, passing alongside of 72 degrees 30 minutes of longitude, through the city of Three Rivers on the north shore of the St. Lawrence, and by about the middle of Compton county on the southern boundary line of the province. In that section, we must select a light, rather than a heavy soil; a well drained piece of land and a site offering shelter against Eastern winds.

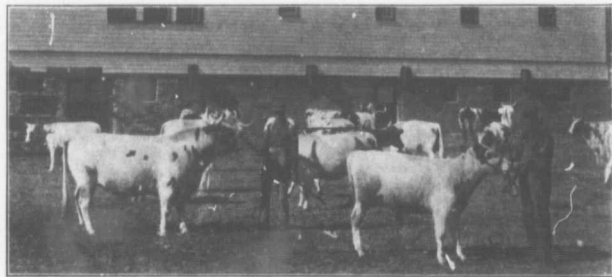
SIZE OF THE ORCHARD

From what we know about the number of persons composing the average eastern family, we count that, taking the helping hands and all, there are eight persons per home. For such a family, a piece of land measuring an arpent in length by half, in orchard, supposed to contain the various kinds of large and small fruits, it would provide the fruit they would eat during one year. We give here an outline of the place of such an orchard, with reference figures and letters showing how it should be planted. We use the arpent for measure, because, in the largest part of the region for which we are writing, it is the common measure used by all land-owners.

The square arpent is 180 by 180 French feet and covers an area of 32,400 square feet, giving for half an arpent an area of 16,200 square French feet. For those who would like to make the comparison between the measure of the arpent and that of the acre, let us say that the acre is 1.7937 arpent and an arpent is .5580 of an acre.

The French foot is 12.79 English inches so that, in English measure, the arpent is really 191.85 English or Canadian feet in length.

(To be continued next week)



A Few of the Ayreshires at Monte Belle, Que.

The Ayreshire herd owned by Senator W. W. Orwa, comprises 65 head of pure bred stock. His cattle are of true dairy type; the cows possess good, large udders with well placed teats. See *Gossip, Ayreshires at Monte Belle*, page 19, of this issue.

dew is not a perfect food, such as honey is. Solid, sealed combs of clover honey are safe feed, but they are expensive, with honey retailing at 15 cents a pound. Solid combs of sugar syrup are just as safe, if not safer, and the cost is little more than half that of honey.

The sugar syrup is made by dissolving granulated sugar in good, clean water in the proportion of two parts of sugar to one of water, by weight. It may be fed in a vessel or feeder placed in an empty sugar or hive body over the colony. If fed in a dish or open vessel it is nec-

essary to place floats on the syrup so that the bees can take it without falling in and getting drowned. Don't be afraid of making the hives too heavy when feeding. They will be light enough before clover blooms again.

Unless forced to do so by frosts, delay your

*A paper read at the summer meeting of the Quebec Pomological Society.