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Award No. 3. For the group of ten cows of any competing breed producing the greatest net profit in churned butter, the quantity of such butter to be determined by chemical analysis upon the basis of 85% fat, and its value to be credited as provided under Award No. 1 above.

The group of ten competing for Award No. 3 must be designated not later than June 1st, 1901, by the representative of each association, from the herd of fifteen representing such association in the competition for Award No. 1.

Award No. 4. For the cow in each group producing the greatest net profit in the competition for Award No. 3.

Award No. 5. For the herd producing the greatest net profit, total solids alone considered.

Award No. 6. For the cow in each herd producing the greatest net profit, total solids alone considered.

Award No. 7.—Sweepstakes. For the cow producing the greatest net profit.

7. If in the opinion of the commission it becomes necessary during the tests to withdraw any animal on account of sickness, the loss to her breed, by reason of such withdrawal, will be credited on the basis of her product while in the test, provided she has taken part for five days, other, wise no credit will be given her.

8. If any association entering animals in these tests purposes placing upon the exhibition grounds, prior to the beginning of these tests, a greater number of animals than is herein specified as permissible to compete in the tests, notice of such fact shall be given the Superintendent of Live Stock not later than September 1st, 1900.

9. If any misunderstanding shall arise regarding the application or interpretation of any of the rules governing these tests, the subject matter in dispute shall be submitted to the Director-General, whose decision shall be final.

All records kept by the commission during these tests will be published by the Exposition.

(Signed) F. A. CONVERSE,
Superintendent of Live Stock.
(Approved) WILLIAM I. BUCHANAN,
Director-General.

The Season's Ontario Cheese Trade.

The make of cheese in Ontario west of Toronto, according to Mr. J. R. Brodie, a travelling instructor for a portion of that district, is quite equal to if not greater than up to the same period last year. The pastures have been more luxuriant than usual up to this season, and greater provision for soiling than usual having been made, the make is likely to keep up fairly well during the summer months when herbage usually fails. The factories are reported as being in fair to good condition, while there is a general movement towards a better class of curing rooms. The ice rack and sub-earth duct are coming more and more into use, which enables the cheesemaker to cure his cheese in the model temperature of about 65 degrees. Throughout a large portion of this district there has been a prevalence of a certain class of bitter flavor in the milk. Its cause is not well understood, nor is it easily gotten rid of. The most effective remedial treatment is a better cooking of the curd. The tendency is for this objectionable flavor to disappear in well-made cheese when properly cured. Throughout all Ontario the trade has been very active to date, a good deal of June make going off at over 10 cents per pound.

Regarding the condition of the cheese trade generally, the *New York Produce Review* has the following to say in its issue for June 20th:

"The situation of the cheese trade presents features which are both interesting and gratifying. Since the first of May, and up to the present writing, the receipts of cheese at New York made an increase of over 60,000 boxes, compared with the same period last year, and the increase in our export clearances was no less than 90,000 boxes. This is certainly a most gratifying enlargement of trade, and would be especially so if encouraged by conditions which might be lasting, and under which we might anticipate a continued growth toward the great volume which some years ago characterized the cheese trade of our city and State.

"But considering the causes which have led to the increase in the movement of cheese to and from New York, the most important factor was undoubtedly developed during the summer and fall of 1899, when the make of English cheese was shown to be unusually light, and in the closing months of marketing the American crop of 1899. The great consuming markets of Great Britain were more closely cleared of cheese last spring than they had been for a number of years; reserve stocks in this country and Canada, which were comparatively light at the turn of the year, were depleted with unusual rapidity by the excess of export demand incident to the lightly-stocked condition of British markets. Doubtless the world's stock of cheddar cheese at the opening of the present trade year was smaller than for many years, and British markets were more than usually dependent upon the early product of Canada and the States. And this dependence was made the greater by an unusually cold and backward season abroad, in consequence of which the early English make this year has been materially curtailed.

"The total volume of export trade from Canada and the States has exceeded that of last year over 50 per cent, up to the present time, and the relatively

high values prevailing in consequence have been most satisfactory to all selling interests, except to those Canadian operators who, failing to anticipate the strength of the demand, are said to have made large contracts with European buyers for June delivery at prices lower than they were able to cover themselves.

"The high prices resulting from the conditions before referred to have left many local operators in a quandary as to the future. There is usually a considerable storage of surplus June cheese here; but no one cares to pile up stock at present prices, and, in fact, up to this time there has been no surplus to accumulate. It is only very recently that Canada has been shipping very heavily, and it is to be expected that as soon as British markets feel the weight of supply on the basis of present shipments from this side of the water, together with the natural effects of a growing local production, softer markets will ensue, which can hardly fail to produce a corresponding weakening on this side."

APIARY.

Taking Comb and Extracted Honey.

BY MORLEY PETTIT.

Apparatus for taking comb and extracted honey is described on page 97 of February 15th FARMER'S ADVOCATE. Sections are not given to the bees until the beginning of the clover flow, as early or spring honey is usually dark and not plentiful enough to produce more than a few second or third rate sections. Where the brood chamber becomes full to the outside combs with honey and brood during the spring flow, put on an extracting super and mark the hive "For Comb," as it is strong and best fitted for that purpose. About one-third to one-half the number to be run for comb may in this way be chosen. For the remainder, put sections on all swarms which issue from extracting hives after clover starts, instead of transferring the extracting super from the parent hive. Get supers on all the hives as fast as they are ready for them. As soon as honey begins to come in from white clover, insert wedges in all hives except very weak ones, remove supers from those hives marked "For Comb," and put on sections. Extract spring honey from all the supers, that it may not color the clover.

To extract rapidly one requires a wheelbarrow containing a comb box full of empty combs, two or three goose or turkey quills to brush bees, some pry, like a screwdriver, for loosening combs, and a lighted smoker. Smoke at the entrance, then remove the cover and blow smoke between the frames, giving the bees time to run down. Examine the middle comb, and, if it is ready, give it two or three quick shakes before the entrance, jarring off most of the bees onto the alighting board, and set it on the ground behind the hive. In the same way quickly remove all combs that are ready. Honey should not be extracted before it is at least partly capped, unless it is dark and must be got out of the way of white honey. Even then it is a question whether unsalable thin honey is preferable to darkened clover honey to be sold at a reduction. Having removed all combs that are ready, shift the remainder to one side, complete the set with empties from the wheelbarrow, and close the hive. By practice this exchange may be made before the bees have time to recover from their first smoking and assume the offensive. Now pick up the combs one by one, from behind the hive, brush off the remaining bees and hang them in the comb box. On the back of the hive record the date of extracting. Thus X-7-2-40-R. means that the right side was extracted on July 2nd, 1900. On the next extracting day the cloth may be turned back from the left side, where the full combs will be found.

After clover honey comes that from linden or basswood. If much is to be sold, it is well to keep this separate, as the clover was kept separate from spring honey; although linden and clover are both first grade and command the same price in the market. These are the most reliable sources in this section; but often linden is followed by thistle honey, also a first grade article, and then, in some parts, buckwheat, whose redeeming feature is that it comes late and helps fill the brood chambers for winter.

Comb honey should not be removed until the close of the honey season; but wherever one super is filled and partly capped, lift it up and put a fresh one under next the brood chamber, and so tier up until they will just have time to finish the lot before the close of the flow. When a fresh super is put under, bees usually stop work on the others until they bring the new one up to the same stage, and then finish them all simultaneously. Now, if the flow stops before that time you have a lot of unfinished and unsalable sections. On the other hand, if you wait until the first super is completely finished before giving another, the bees will nearly stop work, lose valuable time and probable swarm. Thus a great deal of care must be exercised, and even the best beekeepers are sometimes caught with a lot of unfinished sections when the flow stops suddenly, as it often does.

To take off sections, blow smoke into the top of the super to drive most of the bees down, then lift it off and set on end near the entrance. By looking between the sections you can see where clusters of bees are, smoke these from one side and brush them off the other as they run out. Do not continue this too long, as the smoke may taint and discolor the honey; but leave the super standing a few minutes

and more of the bees will fly home. When several supers have been removed pile them one upon another, at various angles, in the extracting room near the door, and the remaining bees will fly to the screen.

By another method, supers are cleared of bees and removed with very little smoke. This requires a "bee-escape," of which there are several kinds, all involving the principle of separating the bees from their brood so they will leave the super and at the same time be unable to return. The queen-bar between super and brood chamber is replaced by a board of the same size, and having the same rim for bee space. In the center of this board is the "escape" proper. The Reese and Lareese escapes consist of wirecloth cones whose bases open into the super. The bees escape through the small end into the brood chamber, but do not find their way back. With the Porter escape every bee has to pass between the points of two very sensitive springs that readily yield as each one passes outward, closing up and absolutely preventing its return.

The best time to put on bee-escapes is in the evening, and by nine o'clock the next morning you may expect the bees to be all out.

GARDEN AND ORCHARD.

Fruit Prospects in Nova Scotia.

Never before in the history of fruit-growing in Nova Scotia has there been a better promise for fruit at this season of the year than at present. The weather was ideal throughout the blossoming period. There were only two rainy days in the whole time, the rest being bright and sunny, so that insects were out in full force. As a result, fruit of all kinds has set well, except in the case of sorts like Baldwin and Gravenstein, which bear heavy crops only biennially, and which last year bore heavily. The few peaches which are grown in the Province have come through remarkably well, with little winter-killing, and have set a very good crop.

Canker worms are very scarce indeed—unusually so, in fact—but in some districts the forest tent caterpillar (*Climacampa disstria*) has been a veritable scourge. This has usually occurred in the vicinity of villages and towns, where there are many small orchards or a few trees in the yards of town lots. In such cases the owners often neglect to spray, and the result has been that their trees have been stripped of leaves and they have furnished enough of the insects to stock the whole town the following year. But where spraying has been thorough and timely, there has been no difficulty in keeping them in check, even though abundant.

Thinning of fruit has not been practiced very generally, but in the few cases where it has been tried, it has been very successful. One grower with whom the writer is acquainted has been in the habit for several years past of thinning his apples, and is satisfied that it is money in his pocket. He thins when the fruit is about the size of hen eggs, so that he can tell which fruits give promise of making the best apples. All inferior ones are removed, and while this means going over the tree twice, once to thin and once to harvest, the grower claims that it does not require much more time, and the trees are thus relieved of the burden of maturing all this inferior fruit, and are consequently more vigorous and bear more regularly. Another orchardist, who grows a large number of Burbank plums, has thinned them for several years past. The first year he thinned the fruit on only a few trees to test the matter, and found that he had more fruit per tree on the average and much finer fruit from the thinned than from the trees not thinned. Not only that, but the following year those trees which had been thinned were again full of blossoms, while the unthinned trees, having exhausted themselves the previous year, bore few blossoms and less fruit. While this matter undoubtedly needs further investigation as to methods and results, my own opinion is that it unquestionably pays, especially if one has a market for choice fruit.

Wolfville, N. S.

F. C. SEARS.

The Onion Crop.

The onion patch should be kept clear of weeds and have the soil frequently stirred, especially after rains, in order to keep the crop growing well. The weight of crops depends to a great extent upon the care they will receive within the next few weeks. Cut off the seed tops wherever they appear. The bulbs of such plants should be first used, as they do not develop nor keep satisfactorily. Seedling onions, unless wanted for sets next year, should be thinned to give the plants a chance to fully develop. Good sized onions can be grown from seeds in one season if they get proper care, and they have better keeping qualities than those grown from sets.

To Increase and Improve the Potato Crop.

An expert potato grower points out, in *American Gardening*, that thinning the plants to a single stock in a hill, and then well apart, will materially increase the size and quality of the potatoes. It has been proven to be equally effective with the early and late crops. A test of this treatment may yet be made with a few rows of the late-planted crop which may have been put in up to the middle of June. The writer says he has procured as much as half a bushel from 7 single stalks. Three feet by 18 inches is recommended as a suitable distance apart for the single stalks.