

taining the breeding queen. In the meantime, prepare a number of artificial queen cells and fasten them on the top bar of a brood frame. Two days after putting the frame of eggs into the hive, take the frame which now contains larvae, into a warm room. Cut down the cell walls in this frame to aid in transplanting the eggs. With a toothpick gently take the larvae from the worker cells and put them on top of the previously supplied royal jelly in the artificial queen cells and then place this frame in the queenless hive in the place of the one removed, which is returned to the breeding stock. Ten days later place the queen cells, which are now sealed, into the queen cages which are in turn placed in the special frame and put back into the hive. The queens in these cages should hatch in about two or three days when they will be ready to mate. The virgin queens are mated, as stated before, by means of the nucleus box, which is large enough to hold three $4\frac{1}{4}$ by $4\frac{1}{4}$ sections. The box is opened at the front end which is removable. Two sections of comb honey are placed in this nucleus, and the other section contains worker brood, from a frame cut into squares to fit these sections. When the nucleus box is all ready, about a cupful of bees is taken from the hive that raised the queen cells and put into the box. A virgin is then allowed to go in by the entrance, which is then closed. When a number of these small nuclei are prepared, they are taken to the yard where the queen is to be mated and the entrances opened. The nucleus should be far enough from the parent hive to prevent the bees from returning to it. The boxes should also be set up some distance off the ground to keep the ants out. A final examination should be made about twelve or fifteen

days later. The mating boxes containing laying queens are ready to introduce into a full colony. The above method has been tried and used successfully by several beekeepers, for the rearing of a few queens for home use. About thirty queens can be reared from one hive and still leave sufficient bees to build up the parent colony for winter. The main point is to have your colony or colonies strong in the spring and if care and thoughtfulness is used in the process, success awaits you. In a later article we will describe some of the methods of introducing queens to full colonies. Middlesex Co., Ont.,
BEEKEEPER.

FARM BULLETIN.

The Red Cow's Calves.

BY PETER MCARTHUR.

Talk about excitement! When I came home from the excitements of the city to enjoy the quiet life on the farm I ran into more excitement than I had met with on my travels. Although it was after dark when I got home nothing would do but that I should go out to the stable to see the new calf. Although I wanted to have my supper first I was over-ruled and I followed the lantern, with the whole family at my side. I might have suspected that there was something unusual about Fenceviewer's new calf, but I put down the enthusiasm of the children to the fact that it was a brand new calf. The little comedy was

properly staged. I was not allowed to see anything until I had reached the calf pen. The lantern was then swung in front and everyone yelled at once. I got the situation at a glance, and I guess I yelled too. The red cow had given birth to twins! There they were, as nice a pair of red calves as anyone would wish to see. I couldn't blame the little folks for being excited. According to those who know, this is the first pair of twin calves that ever was born on the farm. But what interests me is this further development of the red cow strain. You may remember that when summing up their good qualities I recorded the fact that Fenceviewer and her progeny give me aid in farm work by testing the fences every spring so that I put them in good shape for the summer. Moreover, they almost invariably bear heifer calves, so that the flock increases rapidly. To these excellent qualities is now added the unexpected pair of twins. The strain is developing steadily, and some day Fenceviewer and her descendants will force the authorities to give them a corner in the herd book.

Unless there is a change in the weather before long the seeding will be delayed so much that we cannot expect much greater production. The rain has rained almost every day since spring began. Land that was fall plowed is as soft as mortar, and even sod is too wet for plowing. Of course, the country is well drained, and if we should get a few days of dry weather the work could go on, but at present the outlook is rather discouraging. Still, while waiting, I can feed the calves and watch them grow.

What the Ontario Legislature Did for Agriculture.

Much of agricultural interest transpired at the Session of the Ontario Legislature which has just concluded. As shown by the comparative statement, the regular appropriations for agricultural work have been made without very material change. The estimates, however, include one or two items of special interest. One was a special grant of \$1,000 to the Guelph Winter Fair to assist in clearing up the finances of the last show at which there was special expense due partially to war conditions. There was also provided a vote of \$1,000 to assist in the handling of co-operative live stock shipments to the West. As is well known by live-stock men, these shipments have in recent years been financed through the Live Stock Associations, but at the same time have been handled under the supervision of the Director of the Live Stock Branch of the Department. Owing to conditions which have arisen within these Associations in recent years, by reason of the proportion of the membership west of the Great Lakes, they felt that they could not continue using their funds for this purpose and hence an appeal was made to the Government during the February Live Stock meetings to assist in retaining for Ontario this very important trade. It is hoped, therefore, that the work will be not only maintained but developed.

In addition to the appropriations given in the statement, the Department is, of course, spending this year \$300,000 from the Federal Grant for agricultural instruction.

Changes in the Department.

As a result of legislation during the Session some changes have been made in the Department of Agriculture from the administrative standpoint. The Colonization Branch has been transferred from the Department of Agriculture to the Department of Lands, Forests and Mines. This Branch formerly belonged to the Department of Lands, Forests and Mines, but was transferred a few years ago. It has now been transferred back again in order to participate in the plans which the Department of Lands, Forests and Mines is working out in connection with New Ontario development. Needless to say the Department of Agriculture will continue to work in close co-operation especially in the matter of farm labor. Two other branches which for many years have been attached to the Department of Agriculture have also been transferred, namely, the Factory Inspection Branch and the Stationary Engineers' Branch. Legislation has been passed creating a Trades and Labor Branch of the Department of Public Works and combining all associated interests including the branches mentioned. While the administration entailed by these branches never constituted a very large part of the work of the Department, their removal leaves the Ontario Department of Agriculture one of the first, if not the first, exclusively agricultural departments in Canada.

Dairy Bill.

The most important agricultural legislation was, of course, that which dealt with the payment for milk at cheese and butter factories, which has already been reviewed in these columns. Briefly recapitulated this legislation provides that milk must be paid for on the basis of butter fat contained or butter fat plus 2 at cheese factories. Cream must be paid for at creameries on the basis of its quality, but no definite standard of quality has yet been laid down. The legislation in reference to cheese factories is timed to take effect April 1st, 1917, and that regarding creameries is to be brought into effect by proclamation of the Lieutenant-Governor-in-Council. At the present time, therefore, the bill is of an educational nature, but it was received with a marked degree of favor. A session of the Agricultural Committee was devoted to a discussion of this legislation and was participated in by many of the members. G. C. Publow and Frank Hearn, Chief

Dairy Instructors for Eastern and Western Ontario respectively, were present and gave evidence as to the conditions in the Dairy Industry and the need of something of legislation along the line of the Bill to stimulate a greater attention to quality and give Ontario products a better standing in competition in the world's markets. One point which was particularly discussed was as to the method of doing good testing. It was recognized that accurate and reliable testing was one of the crucial points in connection with the legislation. While many of the cheese makers employed in cheese factories are quite competent to do this, there are many who are not. After careful consideration it was found impracticable to lay down any definite method at the present time, but the Department undertook to acquire information during the summer and carry on an educational campaign which would enable them to be in a better position next winter to make definite suggestions on this point. In fact the Minister stated that every effort would be made through the summer to give the bill and all information bearing on it, the widest circulation so that there could be a general and intelligent discussion at the meetings next fall and winter before any attempt was made to carry out the provisions of the Act.

Sheep Damages.

Legislation was also introduced by the Minister providing that henceforth sheep destroyed by dogs shall be paid for in full by municipal councils. In the past the Act has made provisions for indemnity only up to two-thirds of the value. Municipal councils have collected taxes on dogs to meet this indemnity, and in the great majority of cases the revenue from this tax has always exceeded the amount paid out on account of the loss of sheep. Under these circumstances it was felt that it would be no hardship to the municipality, and only an act of fairness to the sheep owners to allow full damages. Permission, however, was given to the municipality to increase the dog tax if they saw fit or if they found it necessary in order to secure enough money to pay the indemnities. Another small change was made in the Act to make it compulsory for the assessors to include all the dogs in the assessment roll. A fine of \$10 is now made for remission of this duty on the part of the assessor. The bill was received without any dissenting voice as there is a general desire to do anything that can be done to stop the decline of the sheep industry in this Province.

Auctioneers' Bill.

For several years past owners of pure-bred live stock have been handicapped in conducting auction sales of pure-bred stock. It was usually desired to secure an auctioneer who had special knowledge of the particular breed or breeds being offered. These auctioneers could only conduct the sales by taking out a local license in each county in which the sale was held. Legislation received consideration empowering any person conducting an auction sale at which 75 per cent. is registered pure-bred stock to take out a provincial license at a fee of \$25 per annum, application to be made to the Director of the Live Stock Branch. Some criticism was heard of this measure, as it was argued, that it was unfair to the local auctioneers. The reply was that it could not do the local auctioneer any harm and was a matter of convenience to the owners of pure-bred stock and therefore a benefit to the live-stock industry in general. The bill, however, did not carry.

District Representatives.

In the consideration of some of the estimates, the Leader of the Opposition inquired as to the policy of the Department in regard to dispensing with the Assistant Representatives in most of the counties for the ensuing summer months. The Minister replied that it was a

war measure designed to free as many as possible for active service or farm labor and at the same time interfere as little as possible with the efficiency of the work by making other arrangements. The situation was thoroughly explained in the letter sent out under date of March 31st. by the Assistant Deputy Minister, C. F. Bailey, advising District Representatives of this step and the reasons for it as follows:—

"I beg to advise you that it has been decided to dispense with the services of Assistants in the District Representative offices this summer with the exception of a few of the larger counties. The reasons for this have probably already occurred to you, but if not, I am sure will appeal to you at once.

"In the first place there are a considerable number of vacancies caused by the enlistments, and it seems hardly fair to those who have enlisted to fill their positions with other young men of military age. The demand for men for military service and the need for men to work on the farms is such that the Department is anxious to do everything that can be done, without too much sacrifice to the work in hand, to leave young men free for these calls. This I think is quite in accord with the public sentiment of the rural districts. In fact this view has been urged upon me by a number of the District Representatives themselves who have already gauged public sentiment in this regard.

Under these circumstances we have decided not to appoint anyone to the vacancies which have occurred and to dispense, after the first of May, with the services of the few others who are at present at work, with the exceptions already noted. I quite realize that this means some extra work and responsibility, but under the circumstances I know I can rely on you to exert your very best efforts, and that is all anyone can be expected to do. You should make it a point early in the season to visit personally the experimental plots, acre profit fields and also the new districts in which arrangements are being made to hold School Fairs. During the summer months arrangements may be made to have junior farmers, school teachers or other competent persons assist with the inspection of the children's lots, and also in the fall with the School Fairs. In this and in other ways we will be very glad to meet your wishes and help you whenever possible to make the very best of the circumstances as we find them, and I feel that the results will abundantly justify this decision."

New Ontario.

Important plans were announced by the Minister of Lands, Forests and Mines in reference to the development of the agricultural resources of New Ontario. Some few years ago, it will be recalled, a bill was passed authorizing the borrowing of the sum of \$5,000,000 for New Ontario development. Up to the present about half of this amount of money has been spent on roads which were badly needed in the North Country, but this new proposition of the Hon. G. H. Ferguson utilizes a portion of the balance of the credit note to assist settlers in other ways. Loans will be granted for the purchase of stock or for improvements up to a maximum of \$500 in an individual case, being secured by a lien on the land cleared. The plan includes a possible organization of creameries and cheese factories and other methods of assisting settlers. A closer supervision is also to be made in a settlement in the selection of land so that settlers will fill up one township before another is opened instead of being scattered over a large area. A commissioner is to be appointed to supervise the whole work who will work through special agents and Crown Land agents and others who will be very closely in touch with the situation. The plan will be watched with much interest.

Annual Resolution.

So much for things done. Now for things talked about. The Opposition introduced its resolution on