

THE ENTOMOLOGICAL SOCIETY OF ONTARIO.

The forty-fourth annual meeting of the Entomological Society of Ontario was held at the Ontario Agricultural College, Guelph, on Thursday, Oct. 31, and Friday, Nov. 1st.

The meetings were opened by Dr. Fletcher, as President, and commenced by a conference on fruit-tree insects, in course of which several points of interest to fruit-growers were brought up. A small dark beetle (*Solytus rugulosus*) has been attacking cherry trees in the Niagara district during the past year, so that large numbers of the growers thought the trees had been blighted. The insect cuts into the bark, and tunnels beneath it. Gummy exudations at the injured points enable it to be readily detected. The branches in which the beetles have tunneled, die, thus severely injuring the tree. The remedies suggested were: (1) Chopping out and burning all dead trees and limbs and affected portions, and (2) applying carbolic washes early in spring. The codling moth (*Carpocapsa pomonella*) has also been exceedingly abundant in the Niagara district during the past year, so that in some cases nearly fifty per cent. of the apple crop was ruined. This is attributed to the lack of care on the part of the fruit-growers in applying the remedies, since, on the Central Experimental Farm, at Ottawa, where spraying and bandaging are systematically persisted in, there have been no attacks of codling moth for ten years, while a short distance away they are very numerous. The oyster-shell bark-louse, although plentiful this season, has been quite reduced in numbers by the cold rains, which came on shortly after the larvæ had hatched. The scarcity of bees, for fertilizing the apple and other fruit-tree blossoms, was also attributed to the late cold weather in the early part of the year.

Various other insects were discussed, and the reports of the directors from the various points through the country were read, as follows: Mr. Young, from the Ottawa district; Mr. C. E. Grant, Midland district; Mr. Williams, Toronto; Mr. Nash, Toronto; Mr. Fisher, Burlington, and Mr. Balkwill, from London. The general opinion of these gentlemen appeared to be that, although some insects had appeared abundantly, the great majority of them had been greatly retarded in development by the late cold spring.

In the evening, a very interesting account was given by Prof. Kirkland, of Massachusetts, on the work carried on there in fighting the two important pests, the Gypsy and the Brown-tail moths, which had covered large areas and devastated them, but which have now been very greatly reduced in numbers. This is of great interest to Canadians, as the Brown-tail moth has already appeared in Nova Scotia, and there is no reason why it should not appear here, unless carefully attended to. A charming paper was then given by Dr. Fyles, of Quebec, entitled "Voices of the Night."

On Friday morning, the reports of the council and officers were given, showing a very satisfactory year's work; after which the officers for the previous year

were re-elected, with the exception of the delegate to the Royal Society of Canada, who was replaced by Mr. Gibson, of Ottawa. Rev. Dr. Fyles then read a very interesting and instructive paper, treating of the two-winged flies of Quebec, taking up many interesting and important forms, such as the bot fly, horse fly, cheese maggot and many others.

On Friday afternoon, the meeting opened with a paper by Mr. T. D. Jarvis, on the scale insects of Ontario, which dealt chiefly with the distribution of these insects—a most important group, numbering, as it does, amongst its many forms, such pests as the San Jose scale, the oyster-shell bark-louse and the cottony maple scale. Mr. Jarvis' list for Ontario is the largest by far that has ever been compiled, and affords an excellent working basis for future students of this group. Two technical papers on a rare moth (*Hepialus thule*), by Messrs. Lyman and Denny, were then given; after which, Mr. Gibson, of Ottawa, gave an account of an outbreak of *Halisidota tessalaris* and *Halisidota caryæ*, two moths, the caterpillars of which are not usually troublesome, but which appear to have caused considerable trouble during the past year. The remedy for these insects is a poisonous arsenical spray like Paris green.

Another insect, which has given considerable trouble during the past year, is the variegated cutworm. Dr. Bethune and Mr. L. Caesar, of the College, gave an account of the ravages of this insect. It appeared in the district around Leamington, Hamilton, and other points, and devoured almost every available food material, even destroying tobacco and climbing peach trees and evergreens. Mr. L. Caesar, who was sent down to the district to investigate the trouble, advised plowing trenches or furrows in front of the advancing caterpillars, and killing them when they had gathered there. This plan proved very satisfactory, and the insect was prevented from doing any more serious damage. After this, however, reports came in from many other sections regarding its attacks on garden and orchard crops, so that a small leaflet was printed by Dr. Bethune and distributed to the newspapers, giving an account of the insect, and a satisfactory method of dealing with it.

This paper having been concluded, Dr. Fletcher gave an address upon the advantages of the Entomological Record, a record of the working entomologists and their specialties, to the investigators, since, by reference to it, one can readily find addresses of those interested in the same lines as is he himself. He then gave his presidential address upon "The Entomological Outlook in Canada," which he considered extremely favorable. He emphasized the value of good grounding in producing specialists in various lines, and the extreme value to the agriculturist of economic entomological work, systematically and thoroughly carried out, and having as its final aim the practical application of scientific methods in subduing and controlling our insect pests.

In the evening, a lecture was given by Dr. E. M. Walker, of Toronto, on the collecting and rearing of dragon flies at the Georgian Bay Biological Station. This lecture was illustrated by lantern views, and proved to be a very instructive account of these insects, their habits, and the manner of studying them, which have been little worked upon in Canada up till this time. With this paper, the meetings were brought to a close. In spite of the fact that the holiday season interfered somewhat with the regular attendance, a very fair number were present at the meetings, and an extremely profitable series of papers and discussions was held.

OFFICERS-ELECTED.

The election of officers resulted as follows: President, Dr. James Fletcher, Ottawa; Vice-President, T. D. Jarvis, O. A. C.; Secretary, L. Caesar, O. A. C.; Treasurer, Prof. S. B. McCready, O. A. C.; Librarian, Prof. C. J. S. Bethune, O. A. C.; Curator, J. Eaton Howitt. Directors—C. H. Young, Ottawa; C. E. Grant, Orillia; J. B. Williams, Toronto; C. W. Nash, Toronto; G. E. Fisher, Freeman; J. A. Balkwill, London. Auditors—M. B. Barlow and J. Crow, O. A. C. Delegate to Royal Society—A. Gibson, Ottawa.

THE PAST SEASON ON P. E. ISLAND.

Editor "The Farmer's Advocate":

The spring with us was late and cold. Seeding was very backward, only a small proportion of the grain being sown in May. June was dry; but, beginning with July, we have had a very wet summer. The hay crop was light, the clover being nearly all winter-killed. Consequently, there was no after-grass to help keep up the milk flow. Cheese and butter have ruled high in price here this year. Beef and pork also command a good price. The grain crop on high ground was good. Wheat was damaged by the joint-worm in some sections. The early oats were good. The late grain was considerably damaged by rust. Grain on low, wet land had to be cut by the scythe, the ground being too soft to carry a binder. Potatoes were a fair crop. Turnips will only be an average crop, as they were damaged by an insect which cut them off above the ground. Turnips as large as an egg were sometimes girdled by the pest. The snowstorm, on the 21st of October, was quite unexpected, a large percentage of the potato crop being still in the ground. Fortunately, it turned mild on the following day, and the remainder of the week being fine enabled the farmers to get the bulk of their potatoes safely housed. Oats are moving at from 50c. to 53c. a bushel. Potatoes are about 25c. a bushel. There is practically no hay being shipped at present. Queen's County, P. E. I. E. R. Y.

QUESTIONS AND ANSWERS.

Miscellaneous.

A BOY'S ACRE PLOT.

My father is giving me one acre on which to raise whatever I wish. I want to get a pneumatic-tired buggy, costing \$150, and a set of rubber-trimmed harness, costing \$25. What would you advise me to raise on that acre?

FARMER'S SON.

Ans.—It looks as though you will need to raise greenbacks. Perhaps some successful strawberry-grower or market gardener will venture suggestions.

RATION FOR DAIRY COWS.

1. Can you give me the names of the officers of the Milk-producers' Association doing business at, or in, Hamilton or Toronto?

2. Considering the prices of different kinds of grain, what would make a good balanced ration, fed with corn silage for buttermaking?

Ans.—1. The secretary of the Toronto Milk-producers' Association is A. J. Reynolds, Scarborough Junction, Ont. Perhaps some reader will advise us whether there is a similar organization at Hamilton, and the name of the secretary, if there is one.

2. Oil meal at \$32 or \$33 per ton (the price quoted by a local feed dealer) is one of the cheapest concentrates to buy, especially where the bulky part of the ration consists of corn silage or fodder and straw. As, however, it will not do to feed too heavily of the strong foods, we would suggest the following as the basis for a ration: Corn silage, 35 pounds; clover or alfalfa hay, 6 pounds; straw, ad libitum (all they want); and one pound each of bran, shorts, corn meal, pea meal and oil meal. If no clover or alfalfa hay is available, omit the corn meal and add half a pound more oil meal, or ground cottonseed. If frozen wheat can be obtained at \$1.25 per cwt., it could be used to advantage in place of the corn meal and shorts. Of

course, the quantity of roughage will depend on the cow's appetite, and the quantity of concentrates should be varied according to the roughage consumed and the cow's response at the pail. Where available, half a bushel of mangels or sugar beets could be used to advantage in addition to the above.

FOUNDING A FLOCK.

I am laying the foundation for a flock of short-woolled sheep. Which do you consider the best for me to buy, Shropshire Downs or Oxford Downs, and what is the difference between them?

SUBSCRIBER.

Ans.—Oxford Downs are larger and heavier, as a rule, than Shropshires, and their wool is not so fine in fibre as that of the latter, but their fleece and carcass are heavier. Shropshires are a medium in size and in fineness of fleece between the Oxford and Southdown. The choice should be governed largely by the available market for each. If one has been found more in demand than the other in your district, or if one has proven more suitable to the soil and pasturage of the district than another, that breed should be chosen. It is often an advantage to raise the class that is looked for in carload lots in the district for breeding purposes, as buyers prefer to go where they can secure a carload or two with the least loss of time and of a uniform class.

VALUE OF DRIED BEET PULP.

Can you give me any information concerning the feeding qualities of beet meal, as advertised in "The Farmer's Advocate"?

G. F.

Ans.—From experiments with dried beet pulp, in comparison with silage, the New Jersey Experiment Station concluded that, for milk production, beet pulp at \$20 per ton would be a fairly-good substitute for corn silage at \$4 per ton. It should be explained, however, that \$4 a ton is almost twice the valuation usually placed on silage, and would be high even for a season like the present. There

is fair money, under average circumstances, producing corn silage for \$2 per ton. In the above experiments, the beet pulp was saturated with water, at least three hours before feeding. Turning to the results of chemical analyses, we find the following supplied by Frank T. Shutt, of Ottawa, and some other authorities:

DIGESTIBLE NUTRIENTS IN 100 POUNDS.		
	Lbs. protein.	Lbs. fat.
Beet-root feed	9.48	1.39
Bran	12.9	3.4
Shorts	12.8	3.8

The percentages of carbohydrates were omitted in the data submitted to us by Prof. Shutt, but basing our estimate on the percentages of digestible protein and fat, the relative values of dried beet and bran would be about as 9 to 12. In other words, beet pulp at \$18 per ton should be approximately as good value as bran at \$24. Let us hear from Canadian farmers who have used dried-beet pulp.

INDIGESTION.

Mare, three years old, stabled, and fed hay and oats all summer, keeps very loose in her bowels; sometimes a slightly offensive smell from manure. She is of a slightly nervous temperament. What can I do to harden manure, as she keeps very loose all the time?

SUBSCRIBER.

Ans.—It may be that her teeth need attention. If she fails to masticate properly, indigestion will result. Have her teeth examined by a veterinarian, and treated, if necessary. Her nervous temperament may, to some extent, cause the looseness mentioned, in which case treat her kindly, and make sure her harness fits easily in every particular. Give crushed oats and dry bran, and the following: Powdered gentian, 2 ounces; ferri sulph., 2 ounces; sodium hyposulphite, 2 ounces. Mix, and divide into twenty-four powders. Give one powder night and morning.

GOSSIP.

H. M. Vanderlip, Cainsville, Ont., writes: "Our herd of Berkshires, which now numbers over 100 head, are going into winter quarters in fine condition. The young stuff, imported in dam, are the right sort, and are growing nicely. We are getting ready for our first annual sale, which will be held at the farm on Wednesday, Jan. 8th. Catalogues will be ready about the first of December, and may be had for the asking. Announcement will be made later."

Mr. Israel Groff, Elmira, Ont., writes: "My Shorthorns have come into winter quarters in fine condition. I have some of the best young things coming on that the Maple Leaf herd ever produced. The matrons have also kept in fine condition, considering that all nursed calves. The imported cow, Bessie Wenlock, has raised a fine roan bull calf, a herd-header that will, no doubt, be heard from in the future. Joy Belle, the Miss Ramadan cow, has also nursed a fine heifer. Rosemary has reared one from Springhurst. The Marr Blythsone raised a very promising red bull calf, from my present stock bull, Chancellor's Model, by Bapton Chancellor, dam Marchioness 22nd, by Wanderer's Heir, he by Old Wanderer. Have several other promising young bulls and heifers from the Crimson Flower, Matchless, Diamond and Lady Fanny families. My motto is a price for every animal within reach of every buyer."

AN IMPORTANT SALE OF LINCOLNS.

Mr. A. D. McGugan, of Rodney, Elgin Co., Ont., is reported to have recently sold to John B. Stumpf, of Oregon, U. S., 151 head of pure-bred Lincoln sheep, the price paid being stated as \$3,450. Such sales as these should tempt farmers to start a flock of some of the breeds of sheep that are now so much in demand, and are proving so profitable to their owners.