

Province, had been injurious in other parts, particularly in the Niagara Peninsula, where about 75% of the fruit was said to be damaged in some orchards. The lesser apple worm, so called, had been found in a few localities, but no serious damage was reported. The apple maggot had done serious injury in Prince Edward County, and in near-by districts along the north shore of Lake Ontario. A certain remedy prescribed was having hogs or sheep in the orchard to eat the fallen fruit.

The tiny pear and apple-blister mite, that causes brown or black spots on the under side of the leaf had done much to lessen the production of fruit by depriving the trees of the power to produce plant food. A ready and effective remedy was found in spraying with lime and sulphur or kerosene emulsion in spring, when the buds begin to burst. The scale insects had not spread much, although San Jose scale was reported for the first time from Dresden. Many new treatments had been tried, but the trend of the discussion pointed to a unanimous verdict in favor of lime sulphur. Oyster-shell scale was said to be combated in Ontario County by the use of Gillet's lye. Mr. Casar, of the College, promised to test the treatment if possible this fall.

Dealing with malformations in fruits, insects were mentioned as the chief cause; apples and pears frequently were distorted by wounds made by one insect or another. The plum curculio was blamed for a large share. Leaf bugs also did part of the damage.

In reporting on insects and their work, Dr. Bethune referred to the increased tendency of farmers and fruit-growers to write to the College, or send specimens. The Hessian fly had been found in Norfolk, Brant and Essex counties. The precautionary measure was delay of sowing fall wheat until after the middle of September. The one-time dreaded pea weevil had been greatly reduced, and if fumigation with carbon bisulphide were practiced it could be exterminated. The potato-blister beetle had caused anxiety in some northern sections. This could be controlled by using arsenical poisons, but the larvæ were beneficial in that they destroy the eggs of the Colorado potato beetle.

Wireworms and white grubs had demanded attention in many sections. Short rotation of crops was recommended. For the latter when found in lawns, the treatment was a drenching with kerosene emulsion, followed by liberal watering. Some had exterminated the pest by drenching the lawn with water every evening for a week.

In the harvested crops some had reported the granary weevil, which could be destroyed by the use of carbon bisulphide. Millers had been called upon to fight the Mediterranean flour moth. Fumigation by hydrocyanic acid gas killed the insects, but not the eggs.

In dealing with the topic, "The Interpretation of Nature," Dr. E. P. Felt, of Albany, N. Y., said that the proper study of mankind was the study of man, the world and the fulness thereof. A difficulty in studying entomology was found in the various forms in which an insect appears. It was necessary to be able to identify the common destructive pests in all stages; then followed recommendations, giving due consideration to crops attacked, nature of season and other conditions. The address was made more interesting by the use of lantern slides, showing the various stages of insects, and the work done by bark beetles, scale insects, leaf beetles, tussock moths, codling moths, and others of economic importance.

"The Farmer's Wood-lot" was the subject of an address by Rev. Dr. Fyles, of Levis, Que. The value of mixed growth, as found in the original covering of the land, was referred to, and Canadians were urged to seize every opportunity of planting trees in waste places, as well as for shade, ornamentation and fruit production.

Farmers, fruit-growers and gardeners were urged by Prof. W. Lochhead, Macdonald College, P.Q., to study insect life more diligently. Each one should be able to identify those pests that attack his crops, the injuries done by the various insects, the characteristics of the chief orders of insects, and the effect of cultural methods in controlling insect life. Co-operation was what was needed. If business men paid as little attention to losses as the farmer does, they would go bankrupt in a very few seasons. The Entomological Society was endeavoring by annual meetings and reports to teach all to attend to the insect business, but the most effective work was being done through agricultural colleges.

Considerable attention was paid to the work being carried on in the United States in importing parasitic insects to combat the gypsy and brown-tailed moths. W. R. Thompson outlined the nature of the work done. Dr. Bethune read a paper from Dr. L. O. Howard, of Washington, D.C., in which it was pointed out that 57 species belonging to the Hymenoptera, Diptera and Coleoptera orders had been imported. Seven had acclimated themselves with native plants and indicated establishment. Ultimate success seems promising, but too rapid results should not be anticipated.

A NEW FARMERS' PACKING COMPANY.

The Port Milford Packing Company, with a capital stock of \$25,000, held and paid up by some 62 Prince Edward County, Ont., farmers, recently finished, in their splendidly-equipped new factory overlooking South Bay, an arm of Lake Ontario, and a fine shipping point, a pack of some 30,000 bushels of tomatoes. Prices per bushel to the growers ran as high as 27 cents, but declined as supplies became heavier, through the unfortunate destruction by fire of another large factory in the vicinity. The shareholders of the new Farmers' Factory have the priority over non-stockholders in the supplying of tomatoes. Next year other products will be canned, and if equal to the tomatoes they will be good. The President of the concern is A. McKee, and the Manager, D. J. Love. The stockholders elect five directors, and these in turn choose the officers to run the business. The company is independent of the Canadian Cannery Association. A large number of hands were employed during the canning season, wives and daughters from the adjacent farms earning excellent wages, in addition to the outside help employed, and living in cottages erected for the purpose. The produce of the factory is loaded on lake boats direct from the storehouse. The officers of the company were highly commended for the condition of things in the factory by the Government inspectors, under Meat and Canned Foods and the Ontario Factories Acts.

BIG CROP OF LARGE SQUASH.

In truck-gardening districts in particular, and more or less generally throughout Canada, squash of different kinds form a comparatively important crop. In recent years many farmers have grown squash for the milk cows, and claim satisfactory results.

On the farm of Wade & Son, of Lambton Co., Ont., last season, an excellent yield of high-class



Prize Squash.

Grown by C. A. Wade, Lambton County, Ontario.

mammoth field squash was produced. They were grown on a dark, sandy soil, liberally treated with well-rotted barnyard manure. Thorough cultivation was practiced as long as it was possible without injuring the vines. All weeds were kept down. This fall the crop harvested averaged eight squash to a vine. All were of great size, and many could be said to be enormous. A 280-pounder won first prize and a special at the West Lambton Fair.

POULTRY.

THREE GOOD PLANTS FOR POULTRY-KEEPERS.

I.—GIANT RUSSIAN SUNFLOWER.

Whilst spending a day at the Oka Agricultural Institute, La Trappe, Que., in charge of Trappist Fathers and lay instructors, between Ottawa and Montreal, on the bank of the Lake of Two Mountains, the large flock of fowl there, its location, and the simple and economic methods in vogue in the poultry plant attracted my attention, and led me to investigate somewhat.

In the midst of A-shaped colony brooder-houses, I noticed half an acre of Giant Russian sunflower, where about 2,000 fowl gathered at certain hours.

Asked how he liked the "Giant," with its only one but large flower, the poultry manager of the establishment emphatically replied, "Oh! it is a godsend! Poultrymen could not dream of a more all-round useful plant, especially for chicken-growers. These were sown very late last spring. Still, see their length, and the bulk of the flowers and seeds!"

In fact, the median length of the plant seemed to be 9 or 10 feet, and I measured quite a few of 13 feet. Some flowers were 18 and 20 inches in diameter, and I found one of 22 inches, full of large seeds. I took a photo of these, with students standing on one another's shoulders, to compare the length of the stalks.

"But what importance do you attach to height and length?" I asked the manager.

"The longer the plant is, the more leaves it bears, and in the fall, when the stalk has grown up large, I need quite a lot of leaves for forage or green food," was the answer.

And he explained to me that early in summer, the sunflower already provides shade for young chickens, and keeps providing it thicker and thicker as the heat grows stronger. "And good shade, too," the gentleman added, "as no grass and hardly any weeds will grow under the large leaves of the sunflower. Therefore, chickens can run under early in the morning, and even after showers, and not be interfered with by dampness or dew, as the soil is clean, free from grass and weeds. In fact, shade can be kept so dense that neither sun nor rain will easily reach the ground right under the leaves."

In the fall, when cooler days come, the lower leaves are gradually taken from the plant, run through the straw or root cutter, dampened with skim milk or slop-water from the kitchen, powdered with bran, and served to chickens, hens, ducks, etc., which are all fond of the stuff; in fact, relish it. They even prefer it to cabbage leaves.

As the days grow cooler in the fall, and the stock's appetite larger, more and more leaves are abraded from the stalks, and so the sun's rays freely enter the plot, and reach the soil exactly when they are needed—that is, when the fowl wants all the decreasing heat of the autumn sun.

By the end of October, stalks and flowers only are left, but some seed has already been fed to moulting birds, and more is served when the weather becomes cold and damp.

The remainder is stored and fed on very cold winter days, as the seed is oily, and therefore heating.

In short, this plant furnishes: (1) In the summer, shade, and also protection from dew in the runs; (2) in the fall it lets the sun shine on the flock, and supplies it, also, with good and abundant green food; (3) during moulting-time, and during winter, it provides heating food in the form of rich, oleaginous seed; (4) if the soil is naturally damp and low, the strong stalks and large bulk of leaves of the plant will likely dry the soil and the atmosphere in the premises to an appreciable extent.

On a portion of the plot I mentioned, the sunflower had been grown for three consecutive years, and seemed to be nearly as good and productive as the first year. It is true the stalks in the fall are dried, and used as fuel under the poultry-house boiler, and the ashes returned to the land in the spring, with a few other cinders and an addition of lime. The poultry manager claims that the droppings of the birds, left on the soil during summer, contain a sufficient amount of phosphates to keep the land fairly supplied with that fertilizer, although the sunflower is an exhausting plant.

II.—RAPE.

I also noticed a fine flock of Pekin and Aylesbury ducks, white geese, etc., several times in the day, marching in file up and down the hill from the river below, to a plot of rape above, and from the rape to the river again. They must have performed the journey ten times that day, filling themselves up with rape, and coming back to the river for a bath and exercise, and returning to the rape.

"Ducks and geese are extra fond of rape," says my poultry friend of La Trappe. "They will leave anything for it, and you can fatten them on it nearly as well as you can fatten sheep. Put them in a rape field, away from the water, and add a little mash, very little animal food, and you will have them fairly fat when you close them up for just a few days to finish them for the market. This rape here was not sown for them, but as a catch-crop around the apiary, after the buckwheat had been harvested. It is nearly five acres from the duck's yard, but as soon as they had once tasted the rape, I could not keep them from it, despite the hill and also the good food I may give them here below. Turkeys and hens like rape, also."

III.—JERUSALEM ARTICHOKE.

In the yards of the older hens one student was digging Jerusalem artichokes, which I supposed were allowed to grow there for shade, but I found out another object as I took the hoe myself and dug one of the three-foot-square bunches of stalks, or "quincees," as the French student said. I gathered from it exactly one bushel of tubers, whose size varied from that of a hen's egg to a duck's egg. The student, in only fairly good English, explained to me the feeding value and the economical qualities of the artichoke, he called topinambour.

I was then convinced that the topinambour, or Jerusalem artichoke, was a third good and profitable plant for fowl.

I now hope readers of "The Farmer's Advocate" will not grudge me if I make my story a bit longer just to show them how their paper is appreciated abroad amongst good people of another language.

As I noted the student I alluded to had the