

separator, the honey passes under a gate into the second compartment while the wax remains on the surface in the first chamber.

"The District Representative and How He can Help the Beekeeper" was handled by H. C. Duff of Markdale, Representative for Grey County. They could assist in advertising demonstrations and act as secretaries for the County Associations, but as they had no special training in beekeeping, they are not qualified to carry out any experiments or give very much information.

G. A. Deadman, Brussels, uses "Shallow Hives in conjunction With Those of Standard Size" and gave the results of his experience.

"Special Appliances and Motor Transportation for Apiary Work" by E. T. Bainard was very interesting for the extensive producer. Mr. Bainard uses the Heddon hive, and to lift off the supers has invented a hive lifter. He also uses a small iron pincher to move the supers slightly forward so that the burr combs between the supers were broken and the leaking honey might be cleaned up by the bees before the supers were taken off. A four-wheeled trailer behind a motor car was more satisfactory than a truck or two-wheeled trailer. The use of motor transports is annually increasing and before long almost every extensive producer of honey will have one or more.

The social side of the Convention was not overlooked. At a banquet on Wednesday evening, Wm. Couss, Streetsville, a member of the Ontario Association since it was organized, gave an illustrated address on "The Past Presidents of the Ontario Beekeepers' Association." His personal acquaintance enabled him to give at first hand a few of the many interesting incidents in connection with each president. "It is due to the untiring efforts of these men that our Association is so prosperous to-day. Each one did in his way a little to help it along. At no time was the progress very rapid, yet constantly did we advance, and now, with the foundation so firmly built and the material so carefully selected, it rests with us to build for those who are to follow."

The following officers were elected: President, F. W. Krouse; 1st Vice-President, James Armstrong; 2nd Vice-President, W. W. Webster; Secretary-Treasurer, Morley Pettit.

The election of directors resulted as follows: R. E. L. Harkness, Iroquois; A. McTavish, Carleton Place; M. B. Holmes, Athens; John Chisholm, Belleville; W. W. Webster, Little Britain; H. G. Sibbald, Toronto; F. W. Krouse, Guelph; James Armstrong, Selkirk; John Newton, Thamesford; Jacob Harberer, Zurich; C. E. Chrysler, Chatham; R. G. Houghton, Newton; Robinson and Morley Pettit, Ontario Agricultural College, Guelph.

HORTICULTURE.

Robbing the Marshland to Enrich the Orchard.

EDITOR "THE FARMER'S ADVOCATE":

The question has come to my mind as to the wisdom, from an economic viewpoint, of using stable manure in the orchard, and I would like to hear the views of some of our older farmers on this subject.

The district in which I live is in the centre of the Cornwallis Valley. The upland soil for the most part is a sandy loam, well adapted to the growth of apple trees, and in the past year has grown large crops of potatoes. Of late years, however, apples have been the principal crop marketed. A very valuable, natural asset to the agricultural industry is found in the dikes. I do not propose going into a lengthy description. Suffice it to say that the dike soil is a very rich, alluvial deposit, eminently adapted to the growing of hay and oats, and is looked upon as permanent hay land. Much of this dike soil has been continually cropped with hay and grain for over one hundred years without fertilizer, and excellent crops are still grown, although it is now necessary for the ground to be re-seeded every few years. Basic slag or ground bone is generally used when seeding down, to insure a good catch of grass as well as grain.

With such a natural store-house of fertility as the dike lands, why is it that our upland soil is little, if any, richer, and our dike soil is poorer than fifty years ago? There must be something radically wrong with the farming methods in vogue when this is the case on so many farms. It may be said that lack of live stock is the answer to this question, but large numbers of cattle are kept, and practically all of the hay and grain is fed out by the farmers. As a result of observation, I have come to the conclusion that one of the chief causes of the deterioration of the soil is to be found in the very common practice of manuring the orchard. The majority of our farmers having five, ten, fifteen or more acres of orchard to care for, give it a coat of manure as the simplest and cheapest fertilizer available. Usually a small piece of potatoes or turnips is grown which receives a fair amount of manure, but the bulk of the manure goes in the orchard. And anyone would be shocked to see manure being hauled to the dike. This system goes on year after year, taking the crop from the dike and upland, feeding it to stock and returning the manure to the orchard. If humus is as valuable in the land as we are told, and as our up-to-date farmers would have us believe, is it any wonder that there is so much talk of the need of lime in the soil to make legumes grow, while daisies, fall dandelion, etc., are spreading over land which should be growing larger crops of roots, grain, clover and timothy with every year that passes?

I am a believer in the future of the live-stock industry, and I am also a believer in the future of orcharding; but I do not believe in the short-sighted policy of bleeding other parts of the farm for the benefit of the orchard.

King's Co., N. S.

E. L. EATON.

A Six Weeks' Course in Horticulture.

EDITOR "THE FARMER'S ADVOCATE":

The Horticultural Department of the Ontario Agricultural College, Guelph, offers a New Special Six Weeks' Course in General Horticulture, January 8 to February 16, 1917, beginning 10 a.m., January 8. The subjects covered will include: Cultural methods for fruits, vegetables, flowers, ornamental shrubs, trees, etc. One: a full, practical course in the propagation of the same, in which students will perform for themselves all the operations involved. Two: construction and management of green-houses, hot-beds and cold frames. Three: use of fertilizers and manures. Four: soils and soil management. Five: control of insect pests and diseases. Six: preparation and use of sprays. Seven: how to order planting material. Eight: recommended varieties of fruits, vegetables, flowers, shrubs, trees, etc., for various purposes. Nine: planting and transplanting. Ten: burning and training.

Bring your working clothes, also a good pocket knife. A schedule of lectures will be drawn up, giving so many hours per week to fruit growing, so many to floriculture, etc. We cannot tell in advance when specific subjects like "The pruning of fruit trees" or "the growing of lettuce under glass," will be discussed. Students should, therefore, come prepared to take the full course. The practical work of propagation will be commenced early in the course, so be in at the beginning, even if you cannot stay the full time. Instruction will be by demonstration and actual practice whenever possible. Tuition free. Board may be secured near the College or in Guelph at reasonable rates. Apply early and perhaps we can help you. Railway rates—fare and one-third for the round trip, on the standard-certificate plan. Send in your name in advance.

O. A. C., Guelph.

J. W. CROW.

The Western New York Horticultural Convention.

Fruit growers will be interested to learn that the annual convention of The Western New York Horticultural Society will occur on January 24, 25 and 26, in Rochester, N.Y. We are advised that the program will be an unusually attractive one, with speakers of much experience and well-known ability. In addition to the valuable information brought out in addresses and discussion at this convention, there is brought together a very considerable display of fruit-growing implements and apparatus. The secretary of the Society is John Hall, Granite Building, Rochester, N.Y.

POULTRY.

A Little Extra Attention May Mean Increased Egg Production.

With eggs retailing round five cents apiece, the hen is receiving a good deal of publicity. If it holds true that the supply and demand rule the market, it is a safe conclusion that the majority of hens are off duty at this season of the year. It is really unnatural for a hen to lay eggs during the cold winter months. However, by careful selection, breeding, housing and feeding, birds have been produced which lay every month of the year. It is especially desirable that "biddy" be induced to lay when eggs are high in price. To do this it is necessary to start the bird on its journey in life early in the spring. It has been proven that the April-hatched pullet is much more likely to lay during the cold weather than the chick hatched the latter part of May or June. The pullet must be developed before she can turn the feed she receives to the production of eggs. With good feed and attention this development should be reached by the time the bird is six months of age. However, many pullets do not commence laying at this age, for the reason that they have not received the proper amount of the right kinds of feeds. It is too late now to rectify any mistakes made along this line for this year, but an endeavor can be made the coming spring to hatch chicks early and feed them properly. There are certain treatments which are essential for winter egg production, even with the early-hatched pullet. In the first place she requires to be fed feeds which contain the material found in the egg. Wheat and corn make satisfactory grains for winter feeding, but good results follow the feeding of a greater variety. Oats are an excellent grain for poultry; their chief fault being that they contain too much hull. However, we know of poultrymen who feed no other grain through the winter and yet they are able to secure a large percentage of eggs. One of the best ways of feeding this grain is to crush it and keep it before the birds, in a hopper. They will seldom eat too much of this material. It seems strange that two poultrymen can be located side by side, keep the same breed of fowl hatched about the same time, and feed the same varieties of grain in the same proportion, and yet one secures a large percentage of eggs while the other gets hardly any. There is a good deal in how the birds are looked after. It is the little attentions which count a good

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deal; for instance, one poultryman will heat the drinking water and give a warm mash every day. Another will sprinkle a little pepper in the mash, and it is possible that this may act as a stimulant to egg production, although one must be careful not to overdo it. There is a difference in the way mashes are prepared, and it is believed to be as essential to make feed appetizing for the hens as it is for other kinds of live stock. Too many neglect to supply meat and green feed during the winter. Without these the bird cannot produce many eggs, even though she is fed an abundance of grain. There are various ways of supplying the meat. Linseed meal, blood meal, or beef scrap, may be fed in the hopper or mixed in the mash. On many farms an animal is slaughtered for meat during the winter and there are certain portions of the carcass not fit for human consumption which may be cooked and hung up in the poultry house for the birds to pick at. Sometimes an animal is accidentally killed and the carcass can be cut up and frozen and fed to the birds during the winter, care being taken that the meat is not diseased. There is usually a supply of green feed about the farm. Mangels, turnips, cabbage, clover leaves, etc. are all good. The ration may be varied by sprouting some oats, which will be much relished by the birds. A little charcoal might profitably be added to the feeds. It is really necessary to the health of the birds. This material may be purchased, or it may be secured from wood ashes from the cook stove. It has often been noticed that where only a few birds are kept, so that the table scraps furnish a considerable portion of the feed, a higher percentage of eggs are produced than in a larger flock. This goes to prove that the proper feed for a laying hen is similar to that on which humans subsist.

A dry, well ventilated pen is essential, and it is advisable to cover the floor with about a foot of chaff or straw. Scatter the grain in this, and the birds get necessary exercise in searching for their feed. If milk is available, by all means let the poultry have a liberal supply, and this will permit of decreasing the amount of meat feeds. A large portion of the egg is water, which points to the fact that the hen requires a constant supply of clean water. Grit, oyster shell and a dust bath are other things which should be found in every poultry house. Poultry requires attention and good care if it is to be a paying proposition.

Dwarf Eggs.

At the Maine Agricultural Experiment Station, considerable investigation work regarding the cause of small, poorly shaped, or dwarf eggs has been made under the direction of Charles D. Wood, and results are published in bulletin form. It was found that these small eggs are occasionally produced by domestic fowls of all breeds. They frequently contain little or no yolk and the albumen is of a thicker consistency than the albumen of a normal egg. Some poultrymen claim that these eggs are produced by birds commencing to lay, while others firmly believe that they indicate that the birds are about to cease laying. The subject was studied in order to find out the frequency of the occurrence of these eggs as compared with the normal eggs, and to find out whether or not certain birds were predisposed to laying abnormal eggs, and whether or not it was hereditary; also in regard to the seasonal distribution of dwarf eggs; their production by birds with normal or abnormal oviducts; the relation of production to the age of the bird, and physiological conditions which might lead to their production. At the Maine Experiment Station the ratio has been about one abnormal egg to 1,158 normal eggs, and it was found that all the birds kept, produced at least one dwarf egg. The production of it, however, is an isolated phenomenon and occurs only once or twice during the life of a bird. They occur less frequently during the winter months than during the summer. The results of the investigation indicate that one of these eggs may be produced whenever, in an actively laying hen with all the egg-producing organs in functional condition, an accident results in some substance or body other than a normal, full-sized yolk getting started down the oviduct or egg tube. They may also be produced as a result of the stimulation of an active duct by some material which is not yolk. In most cases the disturbance which causes the production of the abnormal egg is only of temporary character, and is not associated with any permanent anatomical derangement of the egg-producing organs.

FARM BULLETIN.

We Want the Plan of Your House.

Readers, attention! If you have a good house built on a good plan we would like to publish the plan. We desire also to get good photographs of farm houses. Send us the photograph and plan with a short description. Show the layout and be careful to mark dimensions, size of rooms etc. plainly. Give an approximate idea of stone, cement blocks, bricks and lumber necessary. Draw the plan with lead pencil. Describe it in detail. We'll have it redrawn by an artist and published in the best possible form. You can help our readers, and we will pay for all plans accepted, two dollars, and will allow extra for the description, up to five dollars. Tell us how you made your new home handy or how you improved your old house. A ruler and lead pencil is all you need. Give us the plan with dimensions and we'll work it out to scale in India ink. Do not forget to send photographs, too, if you have them. If not, send the plan anyway. Get the plans in early.

Topics

Each week in this department during the winter months a manuscript is published to discuss one of the boys' and girls' topics.

1. What is a community?

Discuss a community, people left to their own devices? Is there a lack of the community? A remedy? Answer by December 1st.

2. What is a better life?

Is it conv. better live st. give an opp. atmosphere, on the land lacking? Answer by December 1st.

3. By-product

Give your buttermilk to comparative Give weights Have you e how much d do compare have you hauled to st clover straw What value l to hogs? W pulped or co apples for v profitably fe office by Jan

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The elec Breeders' As Association l counted in t Parliament R 18, 1916. T of Ontario. Breeders' As follows: Ma Verta, N. Que.; Prof. Sylvestre, Cl English, Har Indian Head, Alta.; Britis The 1917 Association, Maritime Pro M. W. Miller Que.; Manit Saskatchewan G. H. Hutto Knight, Sard

Fights

EDITOR "THE FARMER'S ADVOCATE": Your paper and the farmer's paper are is Norfolk Co

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Owing to t no market a West Toronto this week. and prices wh absent from t ber expected effect was a the influence tail the mov hogs for the v

Trade in ca view was any past week. Stock Yards sale. This v number pack