Our Poultry Corner

If you have some things you do not understand in connection with your poultry and want some information, state your case briefly and to the point, writing on one side of paper only, and address it to THE MONITOR PUBLISHING COMPANY LIMITED, we will submit it to Prof. Landry, and when his answers are received we will publish them withholding your name if you so desire it.

DUCKS AND GEESE

Methods of Successful Women in Raising the Youngsters

Success With Pekin Ducks

My health failing me as a school teacher, the doctor ordered me out in the air and I took up the art of duck culture. Sister and I owned a farm on which was a piece of land sloping to the south, and at the foot of the slope was running water. So I started out in what they called my "wildcat scheme."

The first year I started with six breeders and from them I raised 498 ducks. The next year I had 17 breeders and raised nearly 800. The third year from 22 breeders I raised nearly 1000. I sold a number of them for breeders and the rest in Philadelphia at 16 to 27 cents per pound and the feathers at 38 cents per pound.

The Pekin duck is the most profitable variety, for it grows the largest, matures the quickest, has the finest plumage, lays the most eggs and dresses the easiest and nicest for market. Its color is a glossy, creamy white; it stands erect, neck not extremely long and slightly curved, head well formed, broad orange beak and dark bluish-gray eyes.

The Points of God Breeding Ducks

An important point is the breast, which should be protruding, large, broad and deep. The body should be long and wide to the stern, not running out to a point towards the tail. The average weight of the drake when in good condition is about 9½ pounds. The duck is shaped like the drake, only she is deeper in the stern, full and square. At the laying season, when in good condition, the back part of the body will very nearly touch the ground. The duck ought to weigh eight pounds. A good poultrykeeper will select his breeders from the earliest hatched, without regard to the tempting market price, for when a duck starts to lay in the early spring she lays the greatest number of fertile eggs.

The feed should differ at different seasons. I never feed whole grain of any kind. For an egg ration in early spring I use every morning and evening, the following formula: Five measures corn chop, five measures bran, two measures middlings, 1½ measures good beef scrap, three measures of cut green stuff and five per cent. oyster shell. Wet this to a crumble state and be sure to mix the grit or shell in all feeds, as that is the teeth to the ducks.

Feeding the Breeders

About three times a week in all feeds I mix fine charcoal. Be very careful at first with the beef scrap, to come up gradually, take four or five days to get to the required amount, or ducks might have some serious bowel trouble. This formula, with plenty of good clean water to drink will in three weeks start your ducks laying, and they will lay 140 to 160 eggs. The first 10 or 12 may not be fertile, but from then to July you can depend on them being fertile if you have a good drake for every five ducks.

I feed my breeders in a long slatted trough, which enables them to reach in and get the feed, and yet not scatter or trample upon it, or crowd each other I give my breeders free range plenty of shade and running water.

After hatching, which I do with incubators and chicken hens, too, leave the youngsters quiet for 24 to 36 hours according to the season, and then put them in a brooder heated to 90 to 95 degrees under the hover. Be sure to have it 95 in winter or early spring. Place each one carefully under the hover. I feed at first equal parts dried bread crumbs, and bran, and 10 per cent. sharp sand and under the hover I put wheat chaff. I feed on small dishes, placing them six to eight inches from the hover, also a fountain of clean water and keep food and water there all the time for the first 48 hours. After that the same feed is fed every two hours during the day, until they are 10 days old. Don't neglect the sharp sand or grit.

Care of the Young Ducklings

Beyond watching for the first few hours that none get away from the hover and become chilled do not fuss with them and keep your hands off the hard-boiled eggs. Be particular to keep drinking vessels clean and keep the brooders dry. I put feed and water saucers on an old clean sack and change it often. After they have had the food before them all the time for two or three days, I am very careful to give them just what they will clean up quickly and leave none for them to nibble at.

In nice warm weather after they are five days old I allow them out in a small pen about 6 x 8 feet. After they leave what I call the nursery, they are fed the growing feed four times a day, which is composed as follows: Four measures of bran, two measures middlings, one measure corn meal, three measures chopped green stuff, five per cent. grit and five per cent. beef scrap. Wet this with water but do not make it sloppy.

I keep them on this feed until they are seven weeks old. They have been in flocks of 25 to 50 in pens 12 x 50 feet, with boxes for shelter from rain, and to go in at night. I keep the boxes cleaned and bedded with chaff. They must be protected from heavy storms until fairly well feathered.

The Fattening Ration

I put them now in the fattening pens, with large store boxes for shelter. The fattening feed formula is two measures of corn meal, two measures middlings, one measure bran, one measure green stuff, 10 per cent. scrap and five per cent. grit. Wet with water to a dry crumbly state. This is a rich food and must be carefully fed or it will glut their appetites. I gather up any food left in the troughs, leave nothing for them to nibble at between meals and they will come up to the troughs hungry and greedy at feeding time, which now is morning, noon and night.

Keep up a strong appetite and at 10 weeks you have ducks ready for market, weighing from 4½ to 6 lbs dressed. Don't hold them over 10 weeks longer as the pin feathers start then and you must feed them three or four weeks longer to have them fit for market, with a loss of the feed for that month and no appreciable gain in weight. I allow my ducklings no water to paddle in. They are watered out of an A-shaped trough with a slat nailed over, so they can only dip the bill in past the nose holes. This is important, so they can keep them clean.—Mrs. A. E. R., Pennsylvania.

Feed and Care of Goslings

We take our goslings from the nest as soon as they are hatched and dry, and put them in a warm box or basket under the kitchen stove and if they are kept warm it is but a short time until they are up nodding their little green heads. When all are hatched and thoroughly dried, we take biddy—for we hatch all of our geese eggs under chicken hens—and put her in a large box.

We put some chopped straw in the bottom of the box and give the hen not over eight or 10 of these queer looking little green babies. After 24 hours comes the feeding. I have always fed dry bread soaked in water with a little black pepper sprinkled over it. After a few days they may be fed cooked corn meal pone, onions and lettuce leaves with occasionally a horseradish leaf.

This is about all they want except grass, water and sand. If you do not have a pond or stream for them to bathe in just give them a large trough and see that it is always full of water. On wet days when we cannot turn them out we gather grass and green food for them. Another important thing which must not be forgotten is the sand pile. I have seen them run to a pile of sand and fairly stuff themselves on it before filling up on the nice green juicy grass. The goslings must be protected from the rains until they are tolerably well feathered, as they drown easily. They may be picked four times, the last time being at butchering time. If the majority of our poultry raisers knew how easy it is to raise them and how little trouble they are there would be hundreds more found on our farms. Counting the income from the feathers, they are almost as profitable as the turkey, and to my notion are not half the trouble.—Mrs. J. S., Missouri.

Well made outdoor brooders can be safely run under shelters having entire open fronts no matter if it is zero weather. Keep the space under the hover warm enough to drive the chicks to the outside edge and part out from under the felts. This is a better guide than the thermometer. You can't measure comfort with a thermometer, and comfort for the chicks is necessary to success.

PRODUCTION AND THRIFT

Beef Cattle and Economy

"Big falling off in Beef Cattle," is a significant heading on page 108 of the Agricultural War Book for 1916. On page 91 there is this paragraph of equal significance:

"It is just in the interests of the Empire that everything possible should be done to foster the Canadian Live Stock industry in Canada, the number of cattle is about 6,000,000, besides 2,000,000 sheep—a total which, having regard to the population of the Dominion, does not at present leave a very large margin for export. With the probablity of preferential trade in food within the Empire there are great possibilities in the expansion of Canadian live stock production."

There was once an English Bishop who, being called upon to preach a sermon in aid of an Orphan asylum for boys and girls, pointed to the children arranged in full sight of the congregation, and, saying, "They're there"' left the pulpit. The quotation of the two foregoing paragraphs should in like manner almost be sufficient to indicate to Canadians the opportunity and duty that lie before them. There is, however, so much matter of similar import, and pointing in the same direction, in the book, that it is well worth while to look further into it. As to the falling off, the statistics show that the decrease of beef cattle during the years extending from 1910 to 1914, totalled 992,662, or 7,338 fewer than a million, or upwards of 23 per cent. Meantime the population increased and people went on eating as much beef as ever. The decline in number of cattle by provinces was: Nova Scotia 31,920; New Brunswick 11,133; Ontario 658,919; Manitoba 62,999; Alberta 293,905, and British Columbia 6,139. Against these decreases there has to be reckoned an increase of 25,681 in Quebec, of 43,272 in Saskatchewan and of 3,400 in Prince Edward Island. It will be noticed that the decline was in those provinces nearest to the United States and where packers are most in evidence.

Two morals are to be gathered from the foregoing figures considered in conjunction with existing conditions. One is that we must produce more and, the other, that we must eat less beef, that is if we have any desire to take rank as overseas exporters of live stock or live stock products of and importance. To accomplish the one farmers will need to pay additional attention to their breeding cows and to prize them to a greater extent than official returns would imply they have been doing. In connection with the other, it will be necessary for the people to cultivate and eat more field and garden produce, as well as to be more thrifty in their treatment of scraps and seemingly waste pieces, such as bones, skin and fat. They will need, so far as the War Book suggests, to produce all they can; to buy as little as possible; to replace meat by milk, cheese, peas, beans and lentils; to use more vegetables and to eat more fruit.

Have you noticed that the United States postage stamps have been paler of late? The ten billion that the government has printed in the past ten months have not had the benefit of German dyes; but those to be printed in the future will brighten up, for Great Britain has consented to let dyestuffs for government use come through the blockade.

England's problem of housing 200,000 Belgian refugees has been in part solved by the building of wooden houses so constructed that when the war is over they may readily be taken down and shipped to Belgium to replace dwellings razed by fire and artillery. The care of the Belgians in England require $5,000,000 a month. In addition there are 3,500,000 Belgians remaining in Belgium who must look to other countries for food. About half of these are able to pay for what they get.

Horticulture

(By Prof. W. Saxby Blair)

METHODS OF CONTROLLING CUTWORMS

Preventative Measures

Clean Cultivation.—The eggs of most of our cutworm moths are deposited soon after the adult insects appear in early or midsummer. As they are laid chiefly on weeds, or other nearby succulent vegetation or upon the remnants of crops, it is most advisable to plough deeply, in the early fall, all fields where cutworms have been troublesome. Such clean cultivation not only destroys many of the eggs and the young hibernating cutworms, but also numbers of other insects which winter beneath fallen plants, refuse, etc. Fall plowing should always be practiced where circumstances will permit, not only for the destruction of hibernating insects, but also because the land will be put into better condition for early spring sowing. In gardens and orchards, all remnants of crops, or other refuse, should be carefully gathered together and destroyed by burning. When such cleaning up is done as soon as possible after the crop is removed, useless plants, which would be suitable for the moths to lay their eggs are removed.

Protective Bands.—In fields or gardens where such plants as cabbages, cauliflowers, tomatoes, etc., are set out, protection against cutworm attack can be had by placing a band of tin, or wrapping a piece of paper, around the stem of each plant at the time of setting out. Tin, of course, lasts longer than paper, and is therefore, to be preferred. Pieces of tin about 6 inches long and 2½ inches wide are sufficiently large for this purpose and can easily be made into a cylindrical shape by bending them around a broom handle. Old tomato or other tins, in which canned vegetables have been preserved, are useful for this purpose and if thrown into a bonfire the tops and bottoms fall off, leaving the central piece of tin which, if cut down the middle, will be sufficient for protecting two plants. When paper is used, cut this into pieces about 3 inches square. The pieces may be threaded on to a loop of string, which may be tied to the box in which plants, such as cabbage and cauliflower are taken to the field. About 2 inches of the paper should be left above the ground.

To protect fruit and other trees from climbing cutworms, a band of cotton batting 4 inches in width may be fastened tightly around the tree near the bottom. The wire or strong string holding the cotton batting should be placed near the lower edge, so that the upper part of the band can be hung down thus forming a sort of funnel, or cone-shaped mass of batting. Bands of tree tangle-foot are also useful in preventing the caterpillars from gaining access to the foliage, etc., of trees.

Remedial Measures

Poisoned Baits.—The poisoned bran remedy is the one which is now used most extensively for the destruction of cutworms generally. This is made by moistening the bran with sweetened water and then dusting in Paris Green in the proportion of half a pound of Paris Green to fifty pounds of bran. It is important that the bran be noticeably moistened (but not made into a mash or moistened too much to prevent its being crumbled through the fingers) so that when the poison is added it will adhere to practically every particle. Two gallons of water, in which half a pound of sugar has been dissolved, is sufficient to moisten fifty pounds of bran. If more convenient, the same quantity of salt may be used instead of sugar, or even molasses may be employed. The mixture should be applied thinly as soon as cutworm injury is noticed. It is important, too, that the mixture be scattered after sundown, so that it will be in the very best condition when the cutworms come out to feed at night. This material is very attractive to them and when they crawl about in search of food they will eat it in preference to the growing vegetation. If the mixture is put out during a warm day, it soon becomes dry, and is not, of course, as attractive to the cutworms. In treating fields of hoed crops, such as beets, turnips, etc., a simple method is to have a sack filled with the bran, hung around the neck and by walking between the rows and using both hands, the mixture may be scattered along the row on either side. When cutworms are so numerous as to assume the walking habit, the poisoned bran may be sprayed just ahead of their line of march. In gardens, where vegetables or flowering plants are to be protected, a small quantity of the material may be put around, but not touching each plant. Fruit trees may be protected from climbing cutworms in the same way, but the mixture should, of course, not be thrown in quantity against the base of the tree, otherwise injury may result from the possible burning effect of the Paris green. As an instance of the remarkable effectiveness of the poisoned bran, I would mention that on one occasion when we used it to protect young tobacco plants in the Central Experimental Farm, Ottawa, we soon afterwards made careful counts of the dead cutworms near a number of the plants. Around one plant we found seventeen dead cutworms, around another eight, around still another nine, and so on. Only one-half of the tobacco plantation was treated. In the other half, where no poisoned bran had been distributed, the cutworms were extremely destructive, very many plants being destroyed.

The Kansas Grasshopper formula has been found of equal value in the destruction of the Variegated Cutworm, and it will undoubtdly prove a most useful remedy for other cutworms, particularly the surface feeding kinds. This formula is as follows:—

Bran	20 pounds
Paris green	1 pound
Molasses	2 quarts
Oranges or lemons	3
Water	3½ gallons

In preparing the bran mash, mix the bran and Paris green thoroughly in a wash tub while dry, squeeze the juice of the oranges or lemons into the water and chop the remaining pulp and peel into fine bits and add them to the water. Dissolve the molasses in the water and wet the bran and poison with the mixture, stirring at the same time so as to dampen the mash thoroughly. In our experiment near Ottawa on the control of locusts the farmers prepare the mixture on the cement floor of a stable or other outhouse, stirring it thoroughly by means of an ordinary field hoe. The mixture should be broadcasted early in the evening. In the control of the Variegated Cutworm in alfalfa fields in Kansas, the above quantity of bran was spread in such manner as to treat about 3 acres. Scattering the mixture thinly places it where it will reach the greatest number of cutworms, and when thus spread there is no danger of birds, poultry or live stock being poisoned.

Fresh bundles of any succulent weed, grass, clover or other tender vegetation, which have been dipped into a strong solution of Paris green (one ounce of Paris green to a pail of water), may be placed at short distances apart in an infested field, or between rows of vegetables, or roots, and will attract many cutworms and protect the crops from further injury. These bundles, also should be put out after sundown, so that the plants will not be too withered before the cutworms find them. As in the case of the poisoned bran, they should be applied just as soon as the presence of cutworms is detected.

The above poisoned baits have given excellent results for surface-feeding cutworms. For those kinds, however, as the Glassy Cutworm, which feed almost entirely underground, these habits, are of course, of little value. For such cutworms it is important to keep the land to be used for grain crops the following year as free as possible from long grass and weeds. If this is done, there will be no tall vegetation to attract the female moths for the purpose of egg-laying.

Furrows or Ditches.—As a rule, when cutworms assume the marching habit, they are nearly full-grown and, of course, are very ravenous. In such instances, as has already been mentioned, applications of poisoned bran have been extremely useful in stopping the attack Severe outbreaks may also be largely controlled by plowing deep furrows in advance of the line of march of the cutworms The progress of the caterpillars is thus stopped and when a furrow is entered by them, a log drawn by a horse may be dragged through it and the cutworms in this way will be crushed and killed. If a series of post holes about a foot deep and about 15 feet apart are dug in the furrow, hundreds of the cutworms will fall into them and they can then be easily killed by crushing them with the blunt end of a post or a piece of fence rail.

Handpicking.—In small gardens, as soon as cutworm injury is noticed, the culprits can, as a rule, be easily located in the soil, about an inch or so beneath the surface, and within a radius of a few inches of the plant, and destroyed by hand. Such handpicking should, of course, be always practised whenever a plant is seen to have been cut off. Where such a species as the Variegated Cutworm is occasionally troublesome in greenhouses, the simple method of digging them out by hand has given relief.

Poultry.—Flocks of chickens, turkeys, or other poultry, are useful in outbreaks of cutworms, and, if turned into infested fields or gardens, will soon find and devour not only many of the caterpillars but also the pupae.

The Red-Backed Cutworm, Euxoa ochrogaster Gn.

Appearance.—As its popular name indicates, this cutworm is red along the upper side or back. When full-grown, it is about 1½ inches long. The head and the shield behind are yellowish-brown, the former having two distinct black marks towards the centre. In the middle of the back there is a pale stripe, and at each side a dark stripe borders the red of the back. As in other cutworms, the body bears the usual series of rather small, dark tubercles, or wart-like excrescences, each of which bears a single hair. Three pairs of true legs from the three segments next to the head are similar in colour to the under surface of the body which varies from greyish to brownish as are also the heavier five pairs of pro-legs from the more central and anal segments. The reddish colour of the upper surface of this cutworm usually distinguishes it from our other common species.

The moth of this cutworm is extremely variable in colour and markings. In size, it ranges from about 1 3-8 inches to 1 5-8 inches. The ground colour of the wings varies from a pale yellow to a beautiful dark red. The front wings are each crossed by four or five irregular lines, some of which in some specimens are hardly traceable. These wings, in most examples, bear heavy conspicuous black markings, particularly near the base of the wing and on either side of the round and kidney shaped marks in the centre of the upper half of each wing. The hind wings are usually dark, paler in the centre and at the base. The body is of the same colour as the front wings.

Habits and Life-History.—The Red backed Cutworm is the most regularly occurring and, on the whole, the most destructive cutworm which we have in Canada. It is present in every Province of the Dominion, and attacks not only all kinds of garden and field crops, but practically every succulent plant which happens to be nearby, especially if the same is of any value. In flower beds, annuals are often entirely destroyed by the ravages of this cutworm. In Eastern Canada, vegetables, such as cabbages, cauliflowers, beats, radishes, etc., are destroyed each year, and in the Western Provinces much injury is done to oats, oftentimes whole fields being entirely ruined. Wheat, barley, etc., are also attacked.

The moths of this cutworm appear at the end of June and during July and August, some years even later, the actual time depending upon seasonal conditions. In ordinary years the moths occur in the largest numbers during the latter half of July and during early August. At Ottawa, the species has been found to pass the winter in the egg state, but whether this is always the case is not known. Eggs deposited in October did not hatch until April 20. Caterpillars from these eggs became full-grown and pupated on June 10, the first moths appearing on July 20. On another occasion, eggs which were laid late in August passed through warm weather in September and October and did not hatch until the following May, but at that time much larger larvae were found out-of-doors in the ground. In 1914 larvae received from Manitoba pupated on June 24 to 27 and the moths emerged on July 15 to 20. A specimen from Saskatchewan pupated on July 6, the moth emerging on July 31.

This cutworm does most damage in the latter half of May and during the first half of June. In most seasons the caterpillar becomes full grown in the latter half of June, and enters the ground to a short depth of about from 1 to 2 inches, where it makes an earthen cell in which it changes to a reddish-brown pupa, about three-quarters of an inch in length. In this inactive state it remains for about three or more weeks. In some years the moths will emerge in less than three weeks; other seasons it has been five weeks from the time the caterpillars entered the earth, before the adults appeared.

In one year (1909) these cutworms were very abundant in eastern Ontario in the first half of July, and did not become fully fed until the middle of that month. Such late occurances however, are unusual.

(To be continued)

Paper is so scarce and dear in some parts of England that butchers are asking their customers to bring platters on which to carry home their purchases; and in some parts of Prussia the authorities urge men to wear unstarched shirts, so that the potatoes from which starch is made may be used for foods.

While the Canadian troops are doing their part at the front and the Canadian business man is doing his part at home, it remains for the Canadian citizen also to do his part. It is patriotic and it is good business to buy goods, first that are made in our town, second, in our country, and third, in our British Empire.