

and the window adjustable for ventilation purposes. The second house is open in the front or south side and provided for canvas curtains for use on stormy days. The ends of this house are single ply matched lumber, but the back wall is of matched lumber lined with paper and sheeted again inside. The roosting coup may be protected at night with canvas curtains. The third house is the warm one, built of matched lumber and lined with paper. It is built as tight as possible. The fourth house is the airy one, built simply of one ply of boards, dressed on one side and the cracks battened. About half the front is open to the weather but may be closed in on stormy days. No protection is provided for the roosting quarters, the fowls roosting in the same temperature as they work in.

In each year's experiments since these houses were built the coldest and cheapest one has given best results. Prof. Graham in his present report compares the egg production of five White Wyandotte sisters of the same age in each of the four houses for December, January and February, 1907-1908.

	Dec.	Jan.	Feb.	Total
No. 4, Cold House	43	50	47	140
No. 2, Curtain Front House	15	50	50	115
No. 1, House with Adjustable Windows	2	37	31	70
No. 3, Warm House	..	23	21	44

Feeding and Management of Chickens

Chicks should not be fed until they are at least 36 hours old. It is a serious mistake to feed them earlier. Too early feeding is the cause of indigestion and bowel trouble in many cases. We try to keep the temperature of the brooder between 90 and 95 degrees at the chick level throughout the first week. After the first week the temperature is gradually lowered, generally speaking, about one degree a day.

The floor should be covered with clover chaff before the chicks are put into the brooder. Lukewarm water should also be put into the brooder for drink before the chickens are taken from the machine. I have had best success in starting young chicks on hard-boiled eggs, finely chopped, shell included, and bread crumbs—about four parts by weight of bread to one of eggs. This is fed dry. After the first two days we begin to give an occasional feed of seed chick-food, which is made as follows:—

Cracked wheat	25	parts
Granulated oat meal	15	"
Millet seed	12	"
Small cracked corn	10	"
Small cracked peas	6	"
Broken rice	2	"
Rape seed	1	"
Grit (chicken size)	10	"

This can be used for the first feed and continued through the first eight to ten weeks with good results. We aim to feed the chicks five times a day. Generally after the first few days, there are three feeds a day of this chick food, one of bread and milk (the bread being squeezed dry and crumbled), and one of whole wheat, or a mash made of equal parts of bran, shorts and corn meal, to which has been added ten per cent. of animal meal or blood meal. If we can secure fresh liver and get it boiled, this is generally given twice a week, and the animal meal is then omitted from the mash. If the chicks cannot get out to run about, the seed chick-food may be scattered in the chaff, and the little chicks will work away most of the day for it. This gives them exercise, which is a necessity in rearing chicks. If there is no green food to reach, it must be supplied. Lettuce is excellent. Sprouted grains are good, also root sprout, cabbage, rape, etc.

When the chicks get to be about eight weeks of age, we usually feed about three times a day—the mash food in the morning and whole wheat and cracked corn at noon and night. If we are anxious to force the chicks, we give two feeds of mash and increase the animal meal a little. Chicks hatched at a season of the year when they can range out of doors need not be fed as often or as carefully as described above.

We have used during the season of 1905 the hopper plan of feeding chicks during the spring and summer months with good success. We have tried placing a hopper or trough of chick feed, made of grains as previously described (seed chick feed), in a coop along with the hen and chicks and keeping the supply constant in or near the coop, from the day the chicks were put out until well grown, with most satisfactory results. Where chickens have a good range about the fields of the average farm I know of no better plan of feeding. The hoppers may be made of any size or shape so long as the supply of grain is constant and the supply large enough to last for about one week. A hopper which slopes from both sides will feed better than one with a slope to but one side.

Where the hopper plan is adopted on the farm, the labor problem is very much reduced. This plan can be carried out with chicks in brooders, but for the first ten days or two weeks I prefer feeding the chicks about five times daily, after which time the hoppers are used. Water should be given daily in a clean dish. We have had chicks with hens do extra well when turned in a large corn field with a hopper of grain constantly near the coop, but no water. These birds were a long distance from a water supply, hence they were tried without water with no bad results. I would prefer giving water if the supply is clean and constant.

W. R. GRAHAM.

Professor of Poultry Husbandry, Ontario Agricultural College.

Blackhead in Turkeys

EDITOR FARMER'S ADVOCATE:

What is the disease in turkeys known as blackhead? What symptoms would indicate that birds were afflicted and what treatment is advised to stamp out the trouble or cure afflicted fowls?

Sask.

R. G. S.

The name blackhead has been given this disease because the heads of diseased turkeys frequently turn black. The head turning black, however, is not indicative of blackhead alone, since turkeys dying of other diseases may also have the head turn black. The seat of the disease is the liver and in the cecum or blind intestine. By nature it is similar to dysentery in human beings. Black head is infectious and while some doubt may exist as to the mode of infection it is very probable that the organisms that causes it are present in the excrement and the disease germs get into the ground upon which the birds feed to be taken into the intestines of healthy birds and thus spread the disorder to them.

Turkeys when affected look shrunken, pinched and purple about the head. The color and character of the droppings is another certain symptom. In older poults, particularly, the droppings will be liquid and stained orange yellow, or may contain blackened blood clots indicative of slight hemorrhages. Young poults die usually within a day or two after being affected. The little turks are most susceptible to the disease. They may contract it early in life and it will develop in them fast or slow according to how numerous the organisms are or the strength of the bird. Their feathers look rough, they have diarrhoea, with bright yellow excrement, and they weakly drag one foot after the other for some time before they die.

Curing the disease is rather difficult. Prevention is about all that is possible. In the first place the stock should be bred to bring it up to the maximum in vigor. It is noticeable in all kinds of stock that the most vigorous are the least subject to disease and best able to shake off a disease should they become affected. Care should be taken to prevent such birds transmitting the disease to healthy stock. Sick birds should be killed immediately they exhibit symptoms that indicate this disorder, and their bodies deeply buried. The buildings, coops and feeding and drinking vessels should be thoroughly disinfected. In preventing the spread of the disease the important thing is to separate the sick from the well birds, and move the unaffected ones to fresh ground. Doctoring sick turkeys is rarely advisable. A tonic to stimulate the liver will help prevent this disease and close confinement and over-feeding favor it. Treatment other than prevention is hardly worth attempting.

Finds Ducks Easy and Profitable to Raise

EDITOR FARMER'S ADVOCATE:

Anyone starting duck raising should procure as large a variety as possible. Personally, I like to cross a Cayuga drake with Pekin ducks. I find the young ducks are much larger than either of the pure breeds, are nicer eating than the Pekin as they are meatier and not so fatty, and they are easier raised than the Cayuga. However, I have had good luck raising the Pekin by themselves, and as many prefer a pure breed I think they would not be a bad choice.

Having saved enough eggs to set two hens, I set them up in the hay loft or else some place on the ground if possible. If I can set them in the loft I make another nest at a little distance for the hens to lay in, and then they don't bother the hen that is sitting. If the nests are in a good, clean place they will not require any care until the eggs are hatched and there will very seldom be any eggs to throw out.

When the ducks appear you need to watch them close and take them out of the nest as soon as they are ready, or they will be out themselves. I take the two hatches and give them to one hen, putting them in an empty bin in the granary for two or three days. Then I remove them to a box near the house where they are kept at night, and let run through the day, until about half grown, when they are removed to the stable for night.

For the first two weeks I feed bread and milk with sand or gravel mixed in or hard boiled egg, shell and all. Then I bring them by degrees onto chop, shorts or small wheat with enough water in it to wet it, but not to make it sloppy. Generally if the stuff in the pig barrel is not sour I fill their dish out of it. Ducks are very punctual, and easily trained, and will come about the same time three or four times daily for their feed, and if it is ready they will not stay long quacking about. We have a pond near our stable and after the ducks are two weeks old they spend a lot of time in it and find a lot of food there as well.

By good feeding ducks are fit to kill when they get their first feathers, at from ten to twelve weeks, and should then dress about four pounds. I kill them by cutting the head off. Then I take special pains about plucking them. It pays to have them look attractive. I remove the feet, insides and outer joint of the wing, and then pick out any stray feathers that have escaped before. Then I tie them up neatly and set in a cool place until they are firm. I never put them in water of any kind, only rinse the inside free

of any blood, and wipe any spots that may get on anywhere with a damp cloth. By this method they do not readily turn dark.

As to marketing I ship most of mine to the city to a butcher. Shipping them the same night as I kill in about forty pound shipments. I also sell quite a few in town especially late in the fall when people want their winter's supply. I have never sold a duck for less than 12½ and often get 16 cents a pound for them.

In conclusion I would say the biggest trouble is in the plucking, which is none too easy but as it is near pay day one can generally get it done. Young ducks are easier raised than chickens seldom having anything wrong with them. They will not stand being out in a cold rain when young, otherwise they are smart and hardy. It pays to feed them well as they get ready for market quicker and consequently cost less.

A FARMER'S WIFE.

FIELD NOTES

Events of the Week

CANADIAN

The Dominion Parliament was prorogued on May 19th.

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The Anglican church has secured a site and will establish a theological institution at Saskatoon.

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Paul Acoose, the Grenfell Indian, defeated Fred Appelby in a fifteen mile race at Winnipeg last week, the time being 1.22.22. Appelby was the world's champion at this distance.

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The Allan liner, Mongolian, en route from Liverpool to St. John's and Halifax got jammed in an ice field off Newfoundland last Wednesday afternoon and had to be cut out by whaling steamers.

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Plans are now complete for the new bridge over the St. Lawrence at Montreal, to replace the one wrecked last year. The structure will be on the cantilever principle and built of nickel steel. The estimated cost is between six and seven millions.

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The Canadian Association for the Prevention of Consumption met in Hamilton, Ontario, last week. Resolutions were passed calling upon the provincial governments to aid in checking the white plague and advising the appointment of medical inspectors for schools.

BRITISH AND FOREIGN

George Meredith, the last of the great Victorian novelists and poets, died on May 17th, aged 80 years.

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A Great Northern express train was held up last week within fifteen miles of Spokane, and the mail sacks rifled of twenty thousand dollars.

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Field Marshall Earl Roberts made a sensational speech in the House of Lords last week, in which he stated that the British army was nothing but a sham. On the day Earl Roberts made his charges in the Lords, a member of the Commons startled the country with the statement that the Germans have established a depot of arms in London, containing 50,000 Mauser rifles and 7,500,000 rounds of ammunition and that an army of trained German soldiers are employed in various capacities in England, ready to rise for the Fatherland the moment the word is given. All of which indicates how moved the British people are just now on the German scare.

From London Printer to Farming in Canada

EDITOR FARMER'S ADVOCATE:

The following experience may be helpful in giving decision to any who with reference to farming are halting between two opinions.

It was on April 9, 1906 that slowly gliding from the port of Liverpool, on the S. S. Dominion, I was effectively separated from England and my old employment there. For years I had been engaged in business as a printer, in the west of London, but the life of a Canadian farmer held out too many attractions for me. Not that I was in anyway acquainted with the routine of farming for I had always lived in London. Still, although I knew life in Canada would be of an entirely different "type" to that of the composing room, considering all things, I decided I should not be unwise in making the change. To gain some necessary experience, on arriving in Canada I hired out with a good Manitoba farmer—Mr. Freer of Elkhorn—and was there "put through my paces" with the rush that prevails everywhere while the short working season lasts.

During the winter I returned to Winnipeg and found employment at my old trade.

OUR FARM RESIDENCE

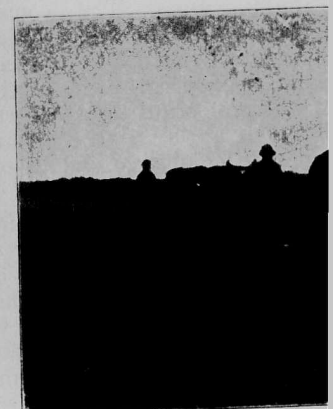
in the following year, having wife and child, as well as my 1 wife started westward for Lloy thence by trail, 25 miles south road dividing Saskatchewan and settled three miles within the la

We had brought implements by freight car, and these together our house necessitated many jou

The development of so large dependent on individual effort means of transport. Those se neys made us thus early sigh for near us at least a little less which comprises some splendidly settled up with people intent seems deserving of better transport. There are several railway surveys inspire hopes, but unfortunately something a little more tangible on.

After we had built our house shown, we were joined by m Then, although unfortunately, work on the land.

Can anyone call Canadian f lay to its charge that it is all m



BUSY BREAKING A 2

that is needed? With work many wrong ways of execut few right ways surely not.

The cut shows part of our fi We hope to crop this year abo oats.

The arrival of the haying ploughing, and we then d putting up about 50 tons of ha

About this time also we st for fence posts and subseq pasture of 15 acres.

The lumber stable being c the horses, we built a sod cattle. This comfortably h the dimensions being 16x20

Water is indeed a problem. There is always plenty in the it needs a good well to give winter months. After two a third well, and struck a brought in water at a gre fifteen feet deep, it has gi enabling us to satisfy ten winter. Needless to say w it, for such a well is far too v in.

Alberta

Building for Future

EDITOR FARMER'S ADVOCATE:

I notice from time to t journal on the building o settlers. The kind of ho homesteaders are far from the builder being hampered and unable to put up a habitation. I will endeavor of your readers, to describe this spring, which I think