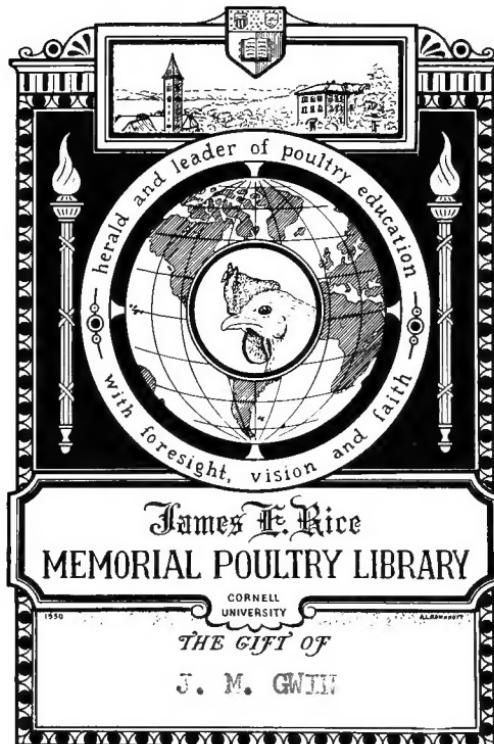


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Profits in Poultry Keeping Solved

LUCAS' EGG
AUTHOR AND PUBLISHER
Pleasant Valley, N. Y.
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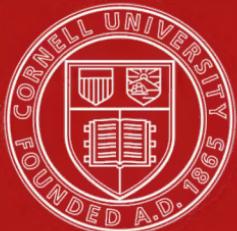
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In Consideration of the sum of 5.00 dollars, paid by Miss Sara E. Hamill, of Waldron, in the County of Pleasant Valley, State of New York, I do hereby license and empower the said Perry to manufacture in said Waldron for his own use only the improvement in Processed Feed, for which I did apply for United States Letters Patent on Mar. 27, 1908, Ser. No. 4,235,633, and to use said process for his own use only, to the full term for which said Letters Patent are granted.

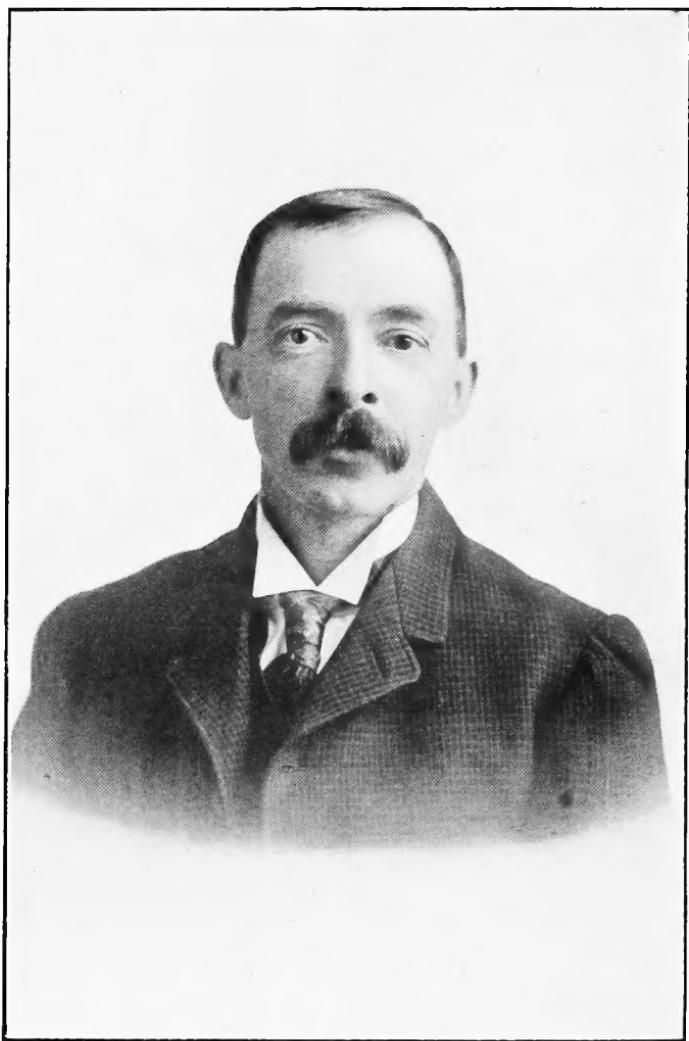
This License is granted to Miss Sara E. Hamill, with the express understanding that said Perry will not disclose said process, or in any way impart said rights to any one not licensed by me.

Signed at Pleasant Valley, in the County of Dutchess, and State of New York, this 22 day of April, 1908.

Edgar L. Earle

In presence of:

Florence Earle
A. S. Rader



EDGAR BRIGGS
Author of "Profits in Poultry Keeping Solved"

PROFITS IN POULTRY KEEPING SOLVED

BEST AUTHORITY ON POULTRY RAISING

SAVE LABOR, TIME AND EXPENSE

BY

EDGAR BRIGGS

Pleasant Valley, Dutchess Co., N. Y.

THIRD EDITION

WASHINGTON, D. C.
THE FEATHER; THE HOWARD PUBLISHING CO.
PRINTERS, 1908

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By

EDGAR BRIGGS

INTRODUCTORY

Just a few words in the way of introduction to those who have never heard of me or of my new methods. I was born a poultryman; my father before me bred fancy stock all his life; from a small boy I gathered the eggs, took charge of the poultry, exhibited them at the county shows and had birds of my own. I have bred fancy stock all my life and tried the winter broiler business with fatal results, as hundreds of others have done. This led me to experimenting and also studying nature to see if there was not a way in which they could be raised on a large scale without any loss to speak of. The result is, after ten years of careful experimenting, I have solved the problem and am now able to put any poultry plant on a paying basis, regardless of location or other obstacles, and plants that went out of business under the ordinary methods have started up under my new methods and made wonderful successes. My first edition put on the market two years ago have all been sold, as well as my second edition of 3,000 copies in 1907; this, my third edition of 5,000 copies, will be ready to mail in March, 1908.

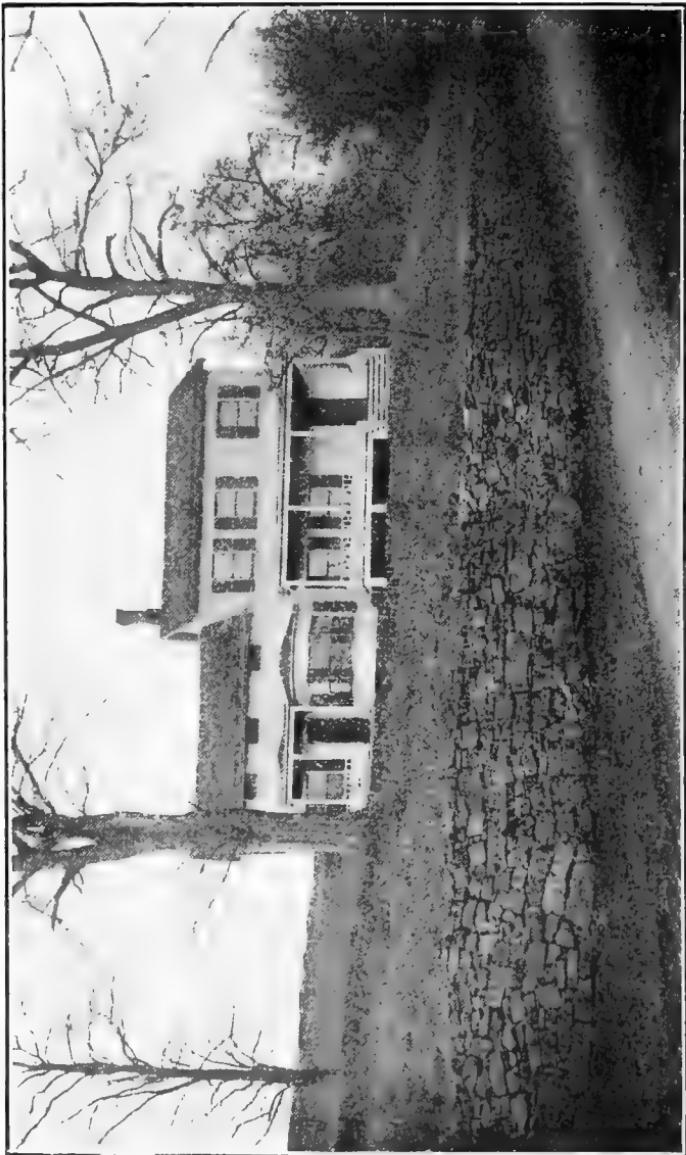
My great feed at 10 cents per bushel will make any plant pay. After experimenting with processed oats, my great feed for 11 years, I consider I now have as near a perfect feeding system as can be obtained for either a yarded or free-range plant. Follow my methods, laid down in this book, and success is certain. Read every line carefully. You cannot go wrong, and a fortune awaits any one who builds one of my free range plants, and yarded plants are bound to pay a handsome profit under this system of feeding.

Very truly yours,

EDGAR BRIGGS,

Author.

RESIDENCE OF THE AUTHOR, AT PLEASANT VALLEY, N. Y.

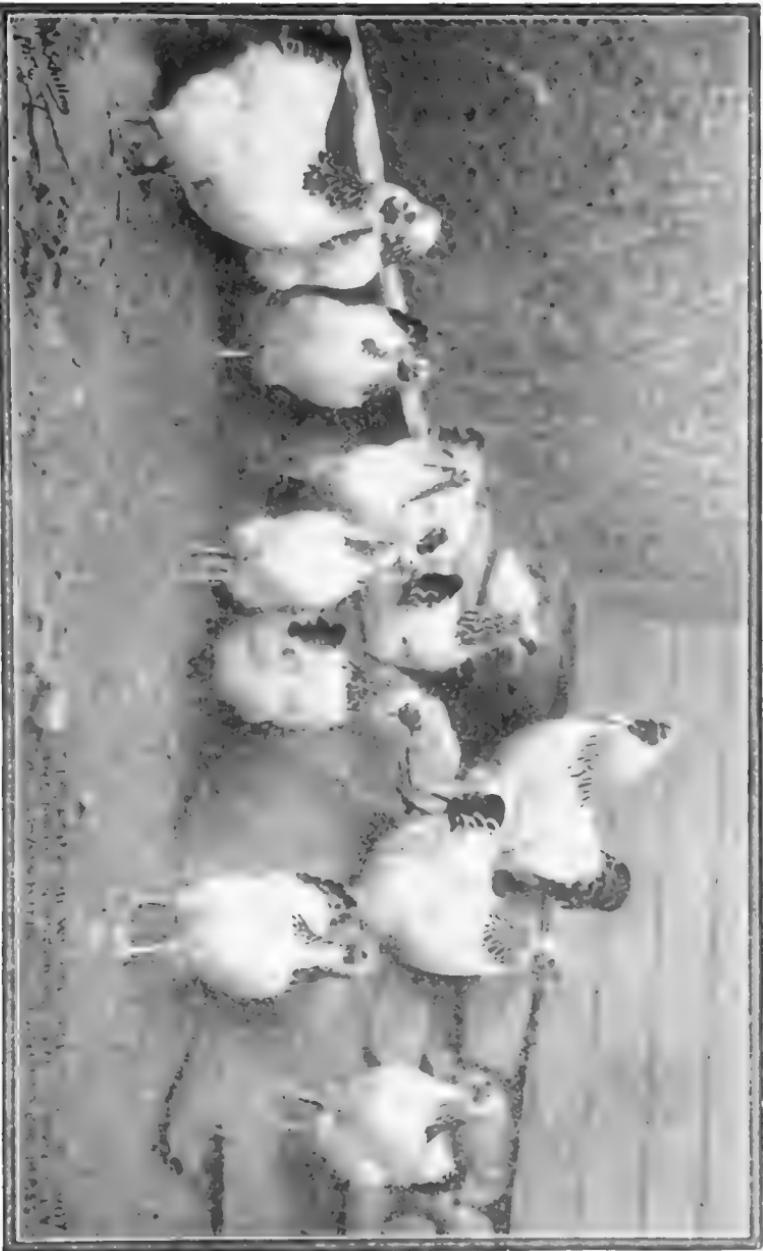


CHAPTER I

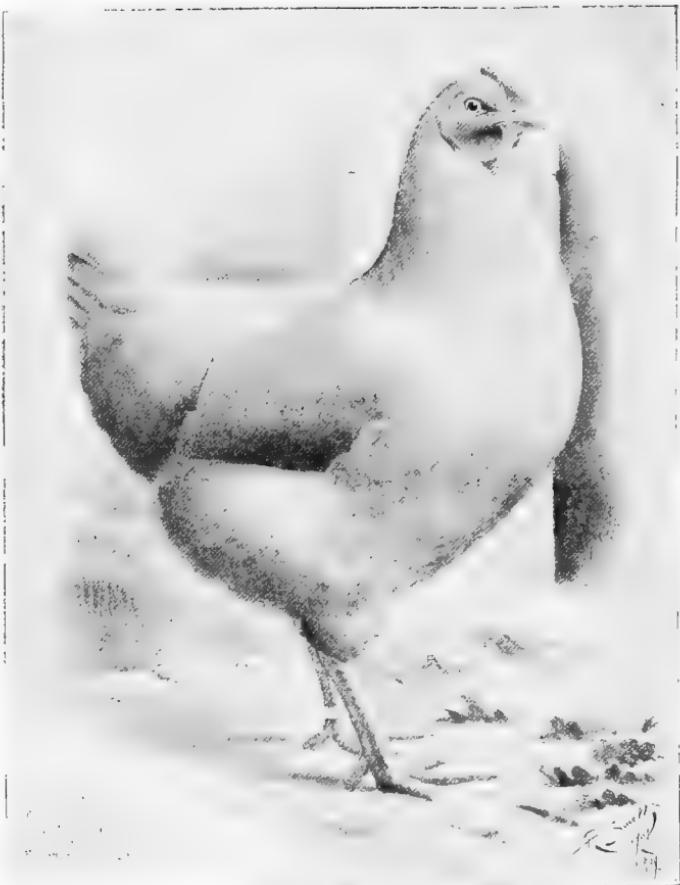
A New Plant

Since getting out the first edition of my book in April, 1906, and my second edition of 3,000 copies in 1907, which have gone so rapidly that my third edition of 5,000 copies will be ready to mail in March, 1908, as my main object is to get out a new edition every year so you can get the benefit of all my latest experiments. I have bought a new 60-acre farm specially adapted to build one of my free-range plants on, where I can entertain my customers and friends, and where you will always be welcome and made at home. I am now building a plant to carry 2,000 layers of the very choicest White Wyandottes and Single-combed White Leghorns on my famous free-range system. No time nor expense will be spared to make this one of the greatest paying plants in this country. This will also be to some extent an experimental farm, as my aim will be, if possible, to improve on my system. All my young stock will be raised on the free-range system as laid down in this book. For this I have two four-acre fields, side by side, which will be inclosed by a wire netting fence, as described elsewhere, and one field will be used for White Wyandottes and one field for Single-combed White Leghorns. I shall endeavor to raise 2,000 of each breed. Four choice matings of each variety will be kept to produce my prize winners and to produce males for all my breeders and for my customers, as my great aim is to produce the best hatching eggs in this country from the best stock at the lowest prices, as I shall do but little advertising for my poultry plant. My customers, who have bought my book, will get the benefit of all my experiments and the benefit of exceptional quality in stock and eggs. In front of my dwelling I have a five-acre field

with a fine stream of water running through it, one of the most natural locations to be found hereabout. I shall carry one thousand White Wyandotte layers in this field of high quality seldom seen in such numbers together. I will have another six-acre field on another part of my farm, where I will carry one thousand layers of the famous Young strain of Single-combed White Leghorns, no finer nor greater layers to be found in this country. A large feed house will be built in a side hill, and underneath it will be a large cellar divided up, one part for incubators, one part for an egg room, and one-half for processing oats for my large plant. Labor will be a small item on this plant, as all my feeding, etc., will be done with the aid of a gentle horse. My first work, after getting posession of my new farm, April 1, 1908, will be to fill my incubators with 2,000 White Wyandotte eggs, then to build my laying houses and get my stock in their new quarters, where my colony houses, as described elsewhere, will at once be built, and two brooders placed in each house; then a large number of fruit trees will be put out for shade, as well as profit. Do not fail to pay me a visit if you come this way. Location: My place is located three-quarters of a mile from Pleasant Valley depot, on the old P. E. R. R. now owned by N. Y., N. H. & H. R. R. All trains from Poughkeepsie Bridge depot stop at Pleasant Valley. To reach my place from depot turn to left and walk to hotel, past the front of it, turn to left, walk north by end of hotel straight ahead until you reach my place—fifteen minutes' walk from depot. If notified my wagon will meet you at depot. If you come to West Pleasant Valley station walk to east five minutes and you will reach my place. If you come from the east through Boston you get off at same depots. You are always welcome any day except Sunday, as we must have one day for rest.



A PREMIUM-TAKING FLOCK OF COLUMBIAN WYANDOTTES



BUFF PLYMOUTH ROCK HEN

CHAPTER II

How to Erect and Run a Poultry Plant for Profit

In these few pages of as few words as possible, I am going to tell you how to erect and run a poultry plant on an entire new system for saving labor and making money. A plant for the farmer, for the business man. A plant that can be run by an amateur, so that one without experience can make it pay a profit from the start. It is conceded, by men who know, that ninety-five out of every one hundred make a failure in the poultry business. The reason for this is because they go entirely opposite to nature in caring for them. A hen in her wild state roosts in trees and feeds on seeds of various kinds, worms and insects of every decription, and when you take her and shut her up in a yard you make a prisoner of her. Under such conditions you feed her on mashes of various kinds until you get her sick and out of condition and the natural result is she does not lay more than one-half the eggs she is capable of, and in some cases not an egg. Hens kept under such conditions in many cases die of roup or cholera or other malignant diseases.

Another very important thing we can learn from the hen in her wild state. She always lays her brood of eggs during the springtime, hatches and raises her chicks when the ground gives up a crop of worms and various other insects, and by the time these chicks are fit to wean, dry weather of summer comes on and worms and insects become scarce and the result is the hen lays no more eggs during the year.

Now, in order to keep hens laying the year round, we must produce springtime conditions the year round. And, right here, I want to say there is nothing that can take the place of insects equal to green cut bone but this is very hard to obtain in most places, and especially on a large scale. Therefore, as a rule, we must use beef scraps in place of it.

CHAPTER III

Location

First of all we must have a suitable location. This is a very important thing if you are going in the poultry business as a business. If you do not own a farm, by all means spend some time and get one suitable for the business. I advise not less than fifty to seventy-five acres. One with a nice, big orchard on it is most desirable. And by all means get a place with one or more streams of water running through it, and if these streams are fed by springs so much the better. Under no circumstances buy a place for the poultry business unless it is well watered, for this is where the saving of labor comes in, and the poultry will do much better—this is nature.

Get a place sloping to the south, with gravelly or sandy soil, if possible. Sixty acres will carry five thousand layers nicely and leave room enough to raise six thousand youngsters if it is laid out right, besides pasturing your horses, cows and various other things you will want on a farm. An ideal poultry farm should be inclosed with a five-foot fence of wire netting and two barb wires over this. It should also have a base board of rough hemlock sunk two inches or more in the ground. This makes a fence proof against all kinds of animals, and there is nothing that has more enemies than chickens. This is all the fence you will need on your plant, as a rule, unless you go in the fancy line, or in dividing your cockerels and pullets. In these cases you should fence in the fields. Your hens must have free range if you want results. And you must remember the profit lies in eggs. Therefore, an egg plant is what you must have to make money, and a plant of this kind laid out right and handled properly can be run by the labor of one man most of the time, as under my system labor is a very small item—and labor has put more poultry plants out of business than any other one thing.

CHAPTER IV

Laying Out Your Plant

First, to lay out your plant, we will take your stream of water and build houses both sides of it far enough from the stream to keep on high ground. Put your houses sixty to seventy-five feet apart, according to your ground, keeping sixty Leghorns to a house and fifty Wyandottes, Rocks or the larger breeds. You must flock your hens, then you will have no further trouble, as nearly every hen will go in her own house.

To flock them, put your sixty hens in the house and keep them shut up for three days, letting them out on the third day one hour before dark. Your hens get acquainted in the three days they are shut up together, and will ever after run much together and return to their own house. After trying houses of various kinds and styles I have never found one that suits me so well as the one I shall describe, and I consider it the most perfect house built at the present time—and also the cheapest constructed.



A MODEL LAYING HOUSE

CHAPTER V

Buildings

First, I will give you a list of the lumber that goes in such a house:

Three chestnut planks, 2 by 8 by 20 feet long.

Thirty-three boards, 1 by 8 by 16 feet long, tongue and groove.

Thirty-three boards, 1 by 8 by 14 feet long, tongue and groove.

Twelve hemlock, 2 by 4 by 20 feet long.

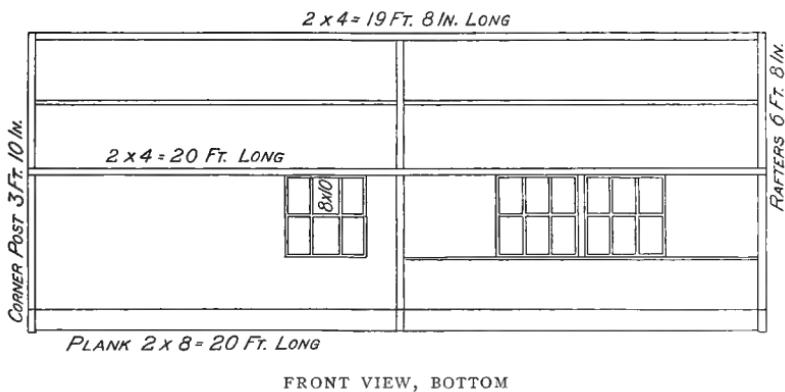
Four 2 by 3-10 feet long, for roosts.

Three windows, 8 by 10 glass, six panes each.

This house is ten feet wide, twenty feet long, four feet high at eaves, with a double pitch roof, made of tongue and groove boards, so that paper of any kind is not required. A roof of this kind will never leak, of any account, if put up with lumber well dried out.

Cypress is the best of all lumber for these houses, as it will stand the weather -far better than any other kind, and it will last for many years without decaying. White pine is the next best, and the only other kind of lumber that can be used where no lining paper or roofing paper is used. Second quality lumber will answer every purpose if you use judgment in cutting it and putting it on, but you must have your lumber good and dry, then it will not shrink apart of any account.

Use the best lumber on north side and en's of house. I will show a cut of this house. A view of the frame will aid you very much in building your first house.

Diagram of Frame

FRONT VIEW, BOTTOM

CHAPTER VI

Directions for Constructing House

I will now tell you very plainly how to construct these houses, so anyone that can use a saw and hammer ought to be able to build one.

First, square up your planks twenty feet long, then take your third plank and make two planks ten feet long each. Now spike your twenty-foot plank on your ten-foot plank, using twenty-penny nails, and you have a box twenty feet long and ten feet four inches wide, outside measure.

Now take a 2 by 4 and saw six pieces four feet long. Then saw out each one of these 2 by 8; these make your corner posts and also your center posts. Spike these firmly on your plank box, one in each corner, and one in center of house, letting the 2 by 8 piece you saw out come on your plank. Nail from inside and let flat side come toward ends. This will make your outside even. Then saw four pieces 3 feet 4 inches long to double your corners with. These nail from plank up on each end. This will make them all even on ends and sides. Now take a 2 by 4, just 20 feet long, nailing one on each side flatways on top of your uprights, even with ends and outside. Now take a 2 by 4, ten feet four inches long, saw two inches out of each end, drop this in center of house on your plank, which drops bottom two inches below level of plank; spike firmly both ways. This keeps your house from spreading and is also your division. Take a 2 by 4 nine feet eight inches long, spike this at end of house, away from door, between your 2 by 4 even with top of plate. This piece stays in and keeps your end from spreading and is also used to nail your end boards to. Now take two more 2 by 4, saw ten feet three inches long, nail one in center of house to upright under plate. nail

the other at end where your door goes in same way, using a twenty-penny nail—just one in each end—as both of these come out after your roof is on. These are used to keep house from spreading and are also used in putting roof on, as we lay a 20-foot plank on them to stand on in nailing the roof on. Now saw two sets of rafters, each rafter 6 feet 8 inches long. Heel must fit on plate and have your top come together nicely.

Make a pattern and keep it for all future sawing, as you may have trouble fitting the first pair.

Nail each set together on ground, then spike firmly on end of your plates even with outside in each case. After this, put in your ridge a 2 by 4, 19 feet 8 inches long. Spike this in peak between your two sets of rafters, letting flat side come even with south side of house and upper edge even with peak. Spike firmly through end of rafters, using three spikes in each end. Then fit a pair of rafters in center of house, raising your ridge in center a little above level. Then put in two cross-pieces, three feet from peak on each side. Spike firmly through end rafters and center rafter, as your roof boards nail on these. Now set in your door studding in center of end. Make your door about thirty inches wide, according to the width of your boards, and about six feet high. Put in a 2 by 4 on each side, setting bottom on plank and sawing top to fit under rafter. Now put a short piece on top and you have your frame complete, except a 2 by 4 from door frame to corner of house, to nail your end boards to.

Now you are ready for your siding. Take, if you use white pine, 1 by 8, 16 feet long boards. Take 16 boards, sawing each in four feet lengths. This gives you 64 boards, four feet long. Begin at a corner, nailing one inch from top of plate, as your roof boards come over these and just pass it. See that you get your joints perfectly tight.

After putting on both sides put on your ends, up and down same as siding. Then for your roof saw your 14 foot boards one-half inch from center. This makes one-half just one inch longer than the other. Now plane off your groove in first board. Let this project one inch over end of house. Put on your south side first, using your shortest board, nailing boards about three-eighths of an inch from your peak, as your boards on north side nail over these, and in this case you use no ridge board.

Your roof boards should be very dry, and put firmly together, and you will have no leaky roofs.

Next, saw out for your windows. In same end of house you put your door.

Put two windows in center of this part under plate on south side by nailing a 2 by 2 for windows to slide on. You slide this pair of windows both ways. Put your other window in the other department, two boards from center of house, and under plate, just the same as the other pair, sliding it back. This is used principally for cleaning the house.

Saw a hole for letting out fowls in first part of house under your two windows, and put in a slide which you can slide sideways with your foot, fitting this very loose.

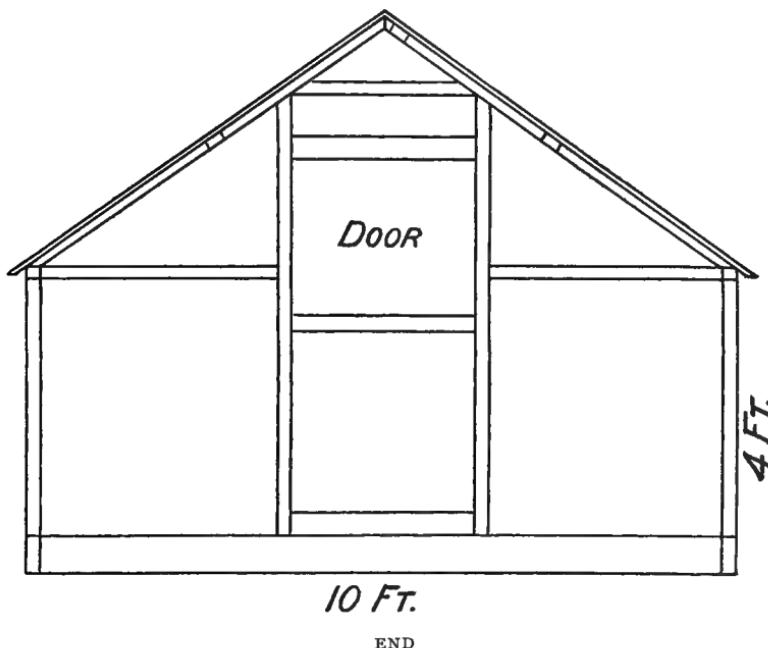
Now put in your roosts. First, nail a strip up and down seven feet from back end. Put a 2 by 4 block on plank to keep this strip out so window will slide in between. Now nail a seven foot strip from end of house to your short strip sixteen inches below top of plate. Do this on both sides and on these boards lay your roosts 2 by 3 ten feet long. About five of these gives sixty hens plenty of room. You can either notch your board one-half inch to lay them in or let them lay loose on your board. Do not nail them.

Now put in your wire netting partition in center of house, a door of wire netting.

Put in your feed hoppers and nests, and your house is practically complete.



WHITE WYANDOTTE MALE

Diagram of End of House

CHAPTER VII

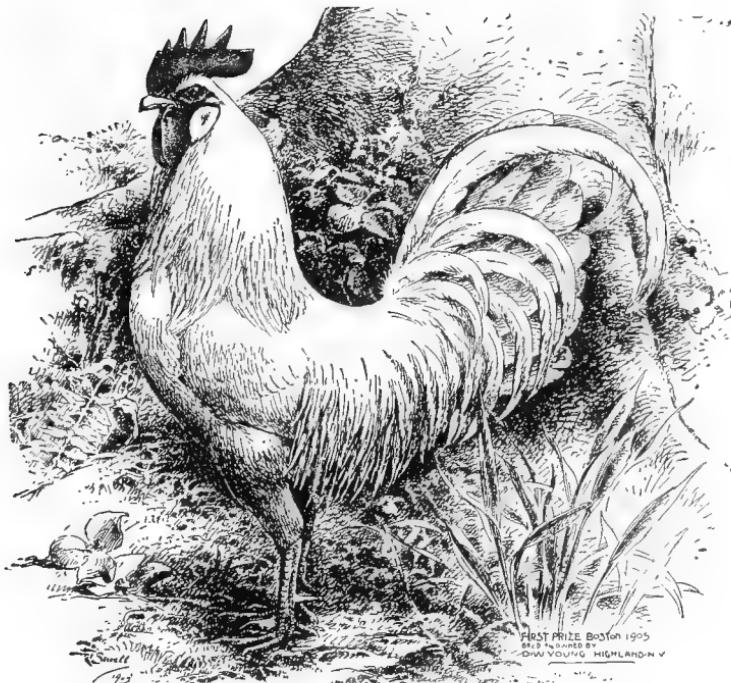
Making of Hoppers

Your feed hopper should be made large enough to take a bag of feed, one hundred pounds, which is sure to last a flock of sixty layers a full week. To make this, take a common hemlock board, twelve inches wide, for bottom and ends, saw a piece two feet long for bottom, two pieces three feet long for ends. Nail these together, ends in bottom. Now use tongue and groove boards for back and front. To put in your back, fit your first board inside of ends, letting it come on bottom in center of hopper and top edge of board even with back of hopper, putting rest of back boards even with outside. Better put rest of boards on outside. Now for your front put first board, one inch from bottom and one inch from your other board, letting top of board come even with outside front of feeder. Then board up on outside. This lets your feed come out in front. Now put a four-inch strip across front at bottom. This keeps your hens from throwing out the grain.

Now make another hopper about quarter size of this one for beef scraps. Make it in the same manner, only make the throat of it fully one and a half inches instead of one inch, as beef scraps will not feed readily like other grain and you will often have to give it a kick, as it will clog up easily. A nice way is to give it a kick every night when you gather the eggs. You can also make a three-department box for oyster shells, grit, and charcoal, which should be kept before them at all times—grit to grind their feed, oyster shells for lime in making shells, etc., and charcoal for medicine.

Another hopper which can be made at no expense and is grand for feeding beef scraps is as follows: Get a box at grocery store, say 15 inches long, 5 inches wide,

and 10 or 12 inches high; now board this box up tight; only leave a 3-inch opening across entire front of box at top. Fill this box with beef scraps; hang on a nail by boring a hole near top and your hens can eat until it is empty and no bother about clogging. Other sizes of boxes will work just the same. You can use one double this size for other feed. Your hen puts her head in this 3-inch opening and can eat until all is gone if your box is hung close to the ground, and these boxes will cost you nothing at grocery store where you trade.



WHITE LEGHORN COCK

CHAPTER VIII

Care of Layers

First, I will tell you how to care for three thousand layers with but little labor, and you should clear \$3,000 a year from them.

If you have built your plant on a stream of water you will have no watering to do.

Keep your feed boxes filled at all times.

Never let them get empty.

Your main feed is best quality wheat screenings.

Your large hopper will take a one-hundred-pound bag, which should last a full week, often two weeks.

You should make a round every week and fill all your hoppers—one with wheat screenings, one with beef scraps, and your three-department hopper with grit, oyster shells and charcoal.

If your plant is built on a stream and inclosed with a good wire-netting fence, all the work you have to do during the week is to gather your eggs every night and give each flock of fowls two quarts of cracked corn.

Remember, your fowls have wheat feed before them all the time, so they can safely have a light feed of another kind of grain every night.

A horse and wagon should be used for this work at all times. A good gentle horse that can be left standing and is afraid of nothing is what you want.

From November until April you will have to make two trips a day to your houses. As cold weather comes on your windows will have to be closed nights and should be opened again in the morning when the sun shines and warms things up.

On this same trip you should give your hens all the processed oats they will eat—about four quarts.

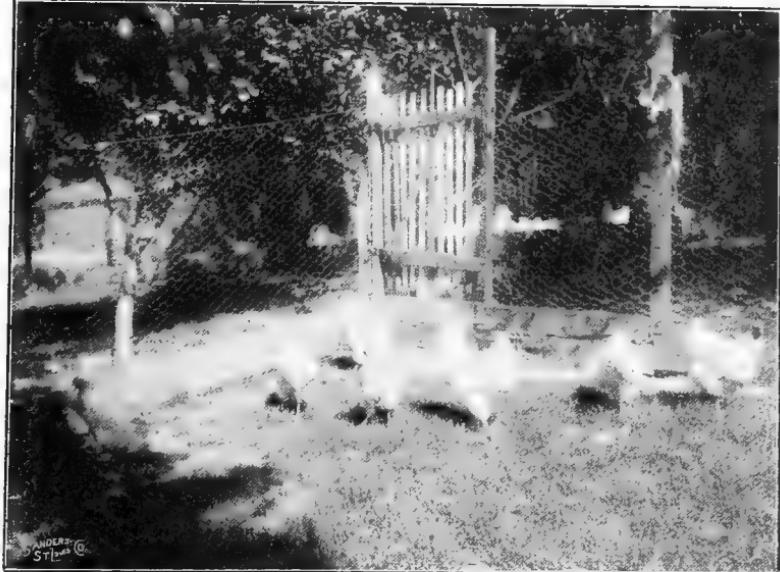
In case you have heavy snow storms your hens can eat snow and they will lay just as many eggs as though they got to the brook to drink—and even more.

Your last trip at night you feed each flock one or two quarts of cracked corn, gather your eggs and shut the windows. The slide which lets your hens out is never closed.

This feed is for flocks of sixty layers and this system will pay a good profit with but little labor, as you can easily see.

You will not get an abundance of eggs during the winter under this system.

You should keep the end of your house, where your nests, hoppers, etc., are, well bedded during the winter, and throw your grain in it so as to give them all the exercise possible.



A FLOCK OF BEAUTIES



WHITE WYANDOTTE COCK

CHAPTER IX

An Egg Plant for Profit

I will now tell you how to run a large poultry plant for the greatest possible profit. This will require more labor, but will pay the most profit, labor considered, of anything I know of at the present time. I have experimented to my entire satisfaction that fowls, to be kept in perfect healthy condition, should have free access to feed at all times, and they will lay fully one-third to one-half more eggs a year—and eggs that will hatch, for they will be produced nature's way.

I have found nothing so good as good quality wheat screenings to be kept before them at all times. So you must keep a hopper of wheat screenings always before them; also one of beef scraps; and they should also have grit, oyster shells and charcoal before them at all times. Now, if possible, in order to get your great profit, you must have a free-range plant, such as I have described, and it should be a leghorn plant, and of all the leghorn family there is none that will produce you more eggs and larger, finer eggs than the single-combed White Leghorns.

I am positive an average of 200 eggs a hen can be produced under this system of feeding and caring for them.

One good man could care for five thousand layers during the summer, providing some one cared for the marketing of the eggs. But for winter care, say from November 1 to April 1, it would keep two men busy, for my aim here is to tell you how to produce eggs the year round in the greatest possible number.

I will begin with the winter care, say November 1, when your stock should all be properly housed in the colony houses I have told you how to build. We will

presume you have a leghorn plant of three to five thousand layers. We usually have much cold weather during November in this part of the state. Of course, you will have to vary this part of the system according to the weather. Here you must use judgment. The first thing in the morning, soon after daylight as convenient, start out with a load of processed oats, and give each flock of sixty layers about four quarts each. If the morning is warm, open your windows. If cold, leave your windows closed until your next trip, after breakfast, about 8 to 9 a. m.

If morning is cold and freezing, you should take a load of warm water and give each flock enough for the day. The finest thing I know of to water a large plant of this kind is a two-gallon butter crock. Get the low kind, for they are easily kept clean and require but little labor in filling. Even if your hens have free access to a stream of water they should be watered in their houses during the winter if you want a large egg yield. In the morning, when your hen comes off the roost, she is apt to be dry, especially if she is laying, and it is very essential at this time that your hen should have warm water to drink for cold water would chill her and make her dull and all hump up and the result is your eggs yield stops.

About 2 p. m. give each flock all they will eat of processed oats. Feed this very liberal, as you will find they will always be hungry for this and you cannot over feed them on it. About four quarts to a flock is about right. This is one of the greatest egg producers I know of, and there is nothing which makes eggs so fertile.

Your hen will eat these when she will look at nothing else. It can be produced for ten cents a bushel at the highest price—usually for eight cents a bushel. I will tell you in my next chapter how to process these oats.

This alone is worth hundreds of dollars to anyone who keeps a large plant, as I will prove to you further on.

For your last round, just before sundown, give each flock two quarts of cracked corn in their litter, to give them more exercise. Gather your eggs and close up your windows. If weather is very warm leave one of your windows open or partly open in scratching part. You must use judgment in these things. A plant cared for this way during the winter should give you fifty to sixty per cent egg yield right through, providing your pullets are laying age and your old hens have passed through their molt.

You will see that I feed four times as much processed oats as I do any other kind of feed. Oats to a hen are what oats are to a horse. It gives them vigor and puts life in them, such as no other feed will do.

If you follow these instructions to the letter, and use judgment in keeping your houses from getting too warm during the day, you will never fail to bring in a load of eggs every day in the year.

Always empty your water jars at night on this last trip, so your hens will always be dry in the morning when you come around with your load of warm water. This is very important.

About 11 a. m. give each flock of 60 layers about one quart of green cut bone and at the same time, if weather is very cold, gather your eggs, for if you are saving them for hatching care must be taken they do not get chilled.





SILVER-LACED WYANDOTTE COCK

CHAPTER X

Patent Processed Feeds and How to Produce Them

IMPORTANT NOTICE

The following process of preparing my improved feed is fully protected by United States patent pending, and included with the sale of this book is a license authorizing the purchaser named to make and use my Processed Feed for his own use only.

I will now tell you of one of the most wonderful feeds known at the present time. Positively one of the greatest egg producers ever discovered and something that will make eggs hatch any time of the year. Oats to a hen is what oats is to a horse. What would a horse be worth without oats? But very little! The main objection to oats for fowls is their very tough hull, which is very hard to digest, and for this reason alone many people will not feed them to their hens. I have experimented very extensively with oats and have fed them for weeks boiled, with no results in eggs. They make a very good fattening feed when boiled, but of no value for eggs—simply put the hens out of laying condition. But when processed, hens eat them in preference to anything else. In fact, they will eat them when they will touch nothing else, while on the other hand, they are the last things eaten by the hens in their natural dry state. I will now tell you how to process them.

Take a pail of good, ordinary oats, same as you feed your horses, cover them with water and let them soak five hours in summer and ten hours in winter, then turn them in a larger pail, one that will hold double the amount, first bore a one-half inch hole in your pail before turning them in, so it will not hold water; leave in this pail until they sprout thoroughly and begin to

germinate heat, which will be in three or four days if in a moderate warm place. Always keep covered with an old bag and stir and sprinkle with water once daily. After they become a mass of roots turn into a box holding about five pails. The oats should not be over three or four inches thick in the box. This must also have a couple of one-half inch holes in bottom so water will quickly drain off when you wet them each day. They will grow very rapidly when they begin to sprout and are at their best for feeding when sprouts are one inch to one and a half inches long, and one bushel will make four to five bushels if oats are good and grow as they should. Always keep oats covered with a heavy bag or old blankets to keep them warm, for they will grow much faster, and your sprouts will remain white and very crisp. By feeding when sprouts only one-half to one inch long you not only get the value of your oats, but they also take the place of green feed, and there is nothing I know of which will start hens laying so quickly and will make so many eggs during the year. Give your layers twice a day all they will take.

For growing young chicks there is nothing like them. Give your little chicks all they will eat three times a day after they are a week old. They are at their best for little chicks when sprouts are one-half inch long.

If possible always grow them in a cellar, but in warm weather they can be grown under open sheds, under trees or north side of buildings. They grow at their best in a temperature of 50°.

Now for a large plant where you must grow them in large quantities you will find a butter tub a fine thing to soak them in. They can generally be gotten at a grocery store for five cents each. You fill your tub three-quarters full of oats and fill up with water, let them soak five to ten hours, then turn in a barrel that you have put a couple one-half inch holes in so

water can drain off. Now if you soak two or three tubs at a time you can dump them all in one barrel, and leave them in this barrel until they sprout and begin to heat. They should be thoroughly wet every day so long as they remain in the barrel, and as soon as they germinate heat they must be dumped in boxes that have holes in bottom say three to five inches thick, and wet and turned daily until ready for feeding. If they get too hot in boxes cool down with cold water and spread out thinner. To have them at their best you should start a lot every day and keep them fed up as fast as they get fit. You will soon learn just how many to start every day. A little cayenne pepper and salt distributed through them evenly when fed will greatly increase your egg yield and keep your hens in the pink of condition—a teaspoonful of pepper and one of salt to a common pailful. I, as an experiment, kept two pens of leghorns six months on this processed oats and beef scraps in front of them and no other feed and they laid well all that time and went through the earliest molt of any hens on the plant, although I do not advise feeding them alone. Now, if this falls in the hands of one who has no cellar to grow their oats in, nor no warm place in winter, they can be grown in an open shed or barn by piling up a foot or more of horse manure and setting your box on it and bank your box on all sides with horse manure, put on a board cover and throw over this a blanket and you can easily grow them in such boxes during the coldest winter weather. You can grow them much quicker in winter time by wetting them with warm water, but in summer time they should always be wet with cold water. They also make a great feed for ducks. Now remember there is nothing that will grow chicks so fast as these processed oats, and nothing so cheap for when they grow at their best they can be grown for ten cents per

bushel, and there is nothing that will make hens lay so many eggs nor such fertile eggs. This feeding system alone is worth hundreds of dollars to any one with a big plant, and for small yarded plants it solves the green-feed question entirely and will make any plant pay a profit. Leghorn pullets can be grown and put to laying at four months of age on this feed. I have also done it with White Rocks and White Wyandottes. Never soak oats over five hours in summer or in a warm cellar in winter, where a heater is run, for if you do you destroy the sprouting qualities of the oats. Barley is the next best grain for processing, and will give nearly as good results. Wheat and buckwheat can also be processed in same manner with grand results.

CHAPTER XI

Summer Care

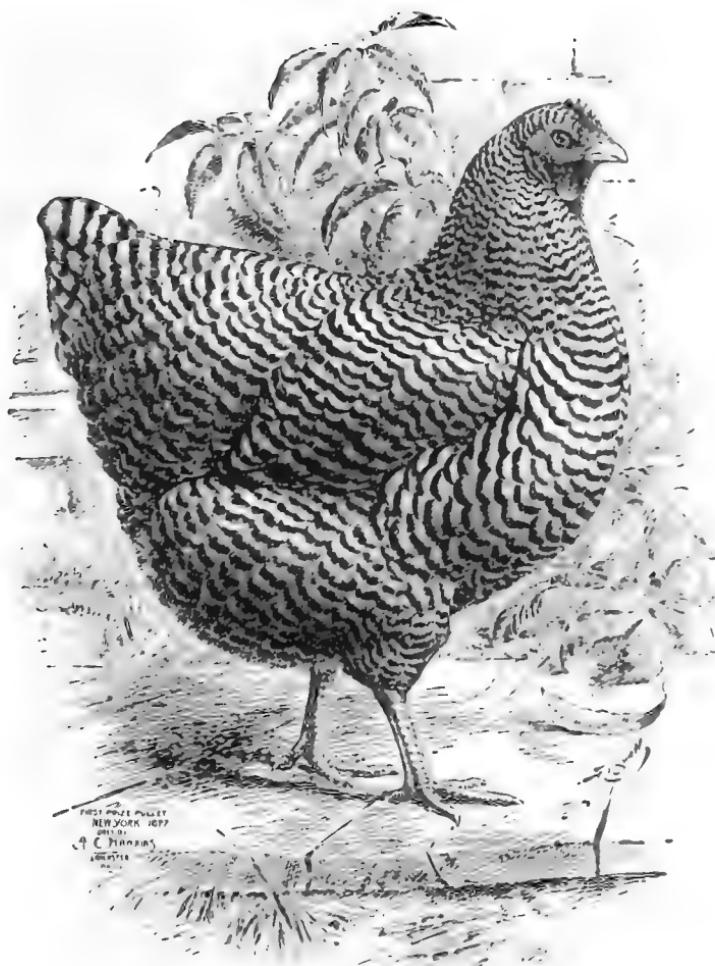
For the summer care of these flocks, beginning about April 1, or as soon as the ground can be worked, take a strip of land along the ends of your house, which end is most convenient, and plow a good strip. If you have ten or twenty houses in a row, plow the length of them all, if you can. Now sow this strip liberally with oats, and if you can harrow this every morning so much the better, and sow lightly of oats, three times a week, until the coming November. Do this all summer long, using a spring tooth harrow, and your hens will work in this fresh ground for this grain continually. As this grain keeps sprouting and coming up all the time you will have springtime for these hens from spring until November. If you follow this up the result in eggs will surprise anyone. The hen keeps right on laying all through the summer and fall, and not even stops when she is molting. So I claim under these conditions a two hundred to two hundred and fifty egg hen will be a common thing and flocks treated this way should average two hundred or more eggs each, for you see the hens feast on an abundance of worms and insects as well, and they will not consume more than half the quantity of beef scraps when treated this way.

In changing from winter to summer care, if your plant is laid out on streams of water, as I have advised, you will have no watering to do, and just as soon as you get to plowing your ground you will gradually stop your green bone and processed oats, as your hens will get all these oats they can handle, now started in their natural way in the ground. The worms and insects they now get will take the place of green cut bone, so all the work you have to do during the sum-

mer is to cultivate this ground and keep sowing oats and at night hitch up your horse and give each flock of fowls about two quarts of cracked corn and gather your eggs. If you follow up this system the hens will keep at it all during the molting season. You must make your rounds every week during the summer and fill all your hoppers, one with beef scraps, one with wheat screenings. Also your grit, oyster shells and charcoal. These must be before them winter and summer. Never let them get empty, and when freezing weather comes in the fall you must change your plans at once if you want the egg yield to continue. Remember this is where the profit comes in. Under no circumstances let your hens fall off on eggs; start on your winter rations, as I have outlined in a previous chapter, just as soon as severe weather of November comes on.

During the summer your windows are to be left open day and night; also your door, providing your plant is enclosed with a wire netting fence such as I described in opening chapter of this book.

You must remember one thing. If you let your fowls get knocked out in any way, through carelessness, it will take three to four weeks to get them back again. And you in the meantime have lost a month's laying of eggs. So great care and judgment must be used. Sickness will scarcely be known under these conditions. Your hens should always be in the pink of condition, and your eggs from January to September should run 90 per cent fertile and give wonderful hatches. I think you will agree with me that this is caring for fowls the nearest to nature's way of any system known at the present time.



A WINNING BARRED PLYMOUTH ROCK FEMALE

CHAPTER XII

Caring for a Free-Range Plant Without Labor

In this chapter, I will tell you how to care for a free-range plant with practically no labor, only gathering your eggs and caring for them.

First, make a feed hopper, as I have described, to hold a bag of feed. You should have three of these, fill one with wheat screenings, one with oats, one with cracked corn. Also your small hopper with beef scraps and your three-department hopper with grit, oyster shells and charcoal. And if your plant is built on a stream of water and inclosed with a wire-netting fence, as I have described, all the work you have to do is to gather your eggs every night and send your man around once a week and fill all your hoppers. He should also put carbolic acid and kerosene, half and half, well mixed, on the roosts once a month during the winter and twice a month during the summer. In September he should clean the houses out thoroughly and coat them over with new sand. Your hens will go to the creek to drink, and in winter, if ground is covered with snow, let them eat snow and they will lay more eggs. The hole which lets them out of the house should never be closed, day or night, winter or summer. In the winter time your windows would have to be kept closed and your hens will pay you a fine profit under this system with practically no labor. You will not get a big egg yield during the winter, but you can depend on a profit of one dollar or more from each hen on this no-labor system. You will be surprised at the results. And for a business man in the city, who owns a small place in the country, and wishes to make some money at home while he is away, there is nothing I know of that can pay him so large a profit on his money invested as a poultry plant run on these lines. Of course,

in this case you would have to buy your breeders each season and the best way to do this is to sell off half of your stock during the early fall and replace them with pullets of which you can always buy at one dollar each during September and October. You can buy better birds for your money during these two months than at any other time of the year. One reason I specially advise single-combed White Leghorns in preference to any other breed, is because you can always buy all you want for one dollar each good laying stock.

I advise changing your breeding stock at end of second year's laying, as two years is all a hen can be relied on to pay a good profit and she should never be kept after this unless she is an extra good one which you want to use as a breeder.



LIGHT BRAHMA BANTAM COCK

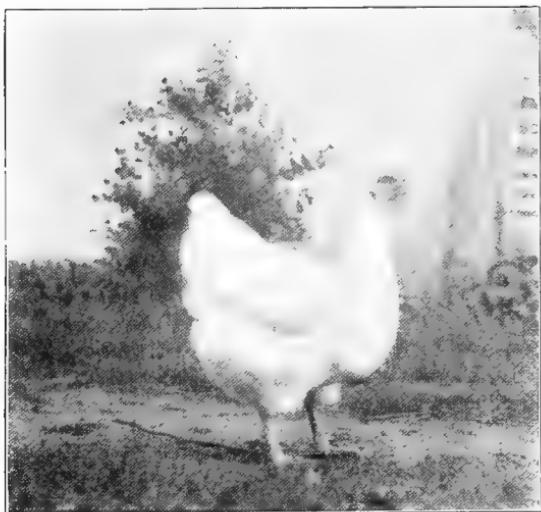
CHAPTER XIII

Caring for a Yarded Plant

I am now going to tell you how to handle a yarded plant for the greatest possible profit, to those who are so unfortunate as to own one, for such plants seldom pay unless it is used for breeding fancy stock. I have experimented for many months on yarded plants and I find that hens even over crowded in small runs will produce more than double the eggs fed on the hopper system than they will fed the other way. Just keep good quality wheat screenings and beef scraps before them at all times and give a liberal feeding of processed oats in the morning—all they will eat—and at 3 p. m. another feeding of processed oats—all they will eat. Remember you cannot over-feed them on the processed oats, as they are light and quickly digested. At night give a light feeding of cracked corn in litter in winter and you will be surprised at the results. Your fowls will always be in the pink of condition and practically no sickness among them. Roup, colds and cholera will scarcely be known, even on the same plants that have always been full of it, when the hens had their daily mashes, all they could eat of it.

I will also give you another valuable secret for a yarded plant. If your hens have long, narrow yards, say 10 by 60 or more feet long, I will tell you how to keep green feed in their yards all summer. Spade up half the yard, sow it to oats early in the spring and put in cross boards eight inches high, cover it over with one inch mesh wire netting, stretching it tight and stapling it firmly to the boards. As soon as your oats get a good start your hens will eat them through the wire netting and your oats will grow just as fast as your hens can eat them off. In this way they will be supplied with green feed all summer long. I am satisfied a yarded plant can be made to pay

run on this new line and cut your mashes entirely out. If possible, feed green cut bone once a day. About 11 a. m. I find the best time for this. If you are in a position to get plenty of green cut bone feed a yarded plant as follows: Keep a hopper of wheat screenings, also one of beef scraps, always before them, as well as grit, oyster shells and charcoal. Give a feeding of processed oats in the morning and 11 a. m a light feeding of green cut bone; 2 p. m. another feeding of processed oats, all they will eat; at night a light feeding of cracked corn in litter to induce exercise, and your fowls will keep in the pink of condition, lay well all winter long, and colds and roup will hardly be known if they are properly housed. They should be watered with warm water in very cold weather, as they are always dry in the morning, and should not be allowed to fill themselves on ice water. After they drink all they want of water in the morning, during the rest of the day they will drink but little at a time and cold water will not hurt them.



A QUEEN OF WHITE WYANDOTTES

CHAPTER XIV

Feeding a Yarded Plant for the Greatest Possible Profit

I will now tell you how to feed a yarded plant for the greatest possible profit and still have healthy birds and produce eggs that will run fully 90 per cent fertile in January. This method will produce more winter eggs than any method I know of at the present time. Keep a hopper of wheat screenings, one of beef scraps, always before them. Also your grit, oyster shells and charcoal—never let them get out of any one of these ingredients. As soon as it is light, give each flock a few handfuls of barley or buckwheat in the litter to keep them busy, say a pint to twenty hens.

About 9 a. m. give all the processed oats they will take.

About 11 a. m. give a light feeding of green cut bone, just what they will eat up nicely, not over one-quarter to one-third ounce to a hen.

About 2 p. m. feed all the processed oats they will eat.

Just before going to roost give a light feeding of cracked corn, thrown in their litter—they will not take much as a rule.

In the morning give your hens good, clean, warm water. This is very important, for the more your hens drink the more eggs they will lay.

Always dump all your drinking fountains at night so your hens will be sure to be good and dry in the morning, and start off with warm water.

If you keep your windows well opened during the day so your hens do not get too warm, you will have no trouble in getting an abundance of eggs all winter long. For if you knock your hens out by over-heating them or leaving your windows open just one night, carelessly, it will take three weeks to get them back on eggs again.

You must use judgment in this respect. A yarded plant fed this way will keep perfectly healthy and lay an abundance of eggs the year around, but can never compare with a free-range plant fed on the system I described for producing the greatest amount of eggs.

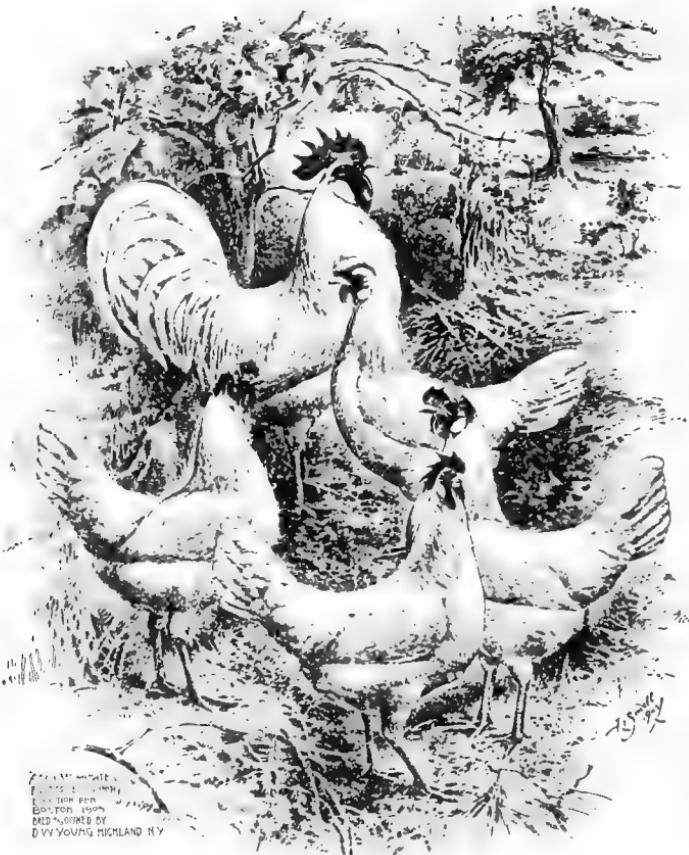
One more advantage in feeding a plant this way, you can get eggs from Leghorns that will run 90 per cent fertile right in January under this system, and hatch fully as good as eggs usually hatch in April. Wyandotte and Rock eggs will run from 80 to 85 per cent fertile, and for any one who wants to raise early broilers, you can easily see the great value of this method of feeding.

In case you cannot conveniently give your hens warm water to drink in the morning leave water before them all the time, or water first thing in the morning before hens come off the roost.

If your houses have dropping boards you should clean the droppings off at least twice a week the year around. In the houses I have described for your free-range plant, your droppings go right on the ground, and it is not at all necessary to clean them out often than twice a year, so you can see the amount of labor saved.

For nests in these colony houses that I have told you how to build, I advise making three sets of five nests each for each house, which can easily be made. A common hemlock board, twelve inches wide, will answer every purpose. Saw a piece, four feet six inches long—three of these will make your top, bottom and back. Use four partitions one foot long, and for your front a four-inch strip is all you want, and you have a set of five nests quickly and easily made. You can either nail these to siding or put a couple of holes in them and hang them on hooks, about one foot from the ground, just so a hen can look in them, and then she will jump in them from the ground.

Three sets of these nests should go in every house for a flock of sixty layers.



EXCELSIOR STATE
PEN OF PRIZE BEAUTIES
EXHIBITED IN THE
BOSTON FAIR
MILDRED OWNED BY
D.V.Y. YOUNG HIGHLAND N.Y.

A PEN OF PRIZE BEAUTIES

CHAPTER XV

How to Build an Ideal Incubator House

I have told you in my former chapters how to produce your eggs in the greatest possible number and how to produce eggs that will give you the largest hatches. Now you will want to know how to hatch them. First, I will tell you how to build what I consider the most perfect incubator house. Select a side hill if you have one near by, for a perfect incubator house should be part under ground and part on top. You can determine size of house by the number of machines you want to use and the number of chicks you wish to hatch. But it is always safer to build much larger than your present needs, then you will not have to rebuild or enlarge when your business grows.

- To build this house, put up a wall of stone five feet high on all four sides, putting in windows at the top of your wall; a four-pane window, 8 by 10 glass, will answer the purpose nicely. Hinge at bottom so it will open inside.

Put windows on each side and at south end. Put none on north side. A window every ten feet is about right. Now put a window in each end for ventilation. Put these windows near peak; a six-light window, 8 by 10 glass, and in summer these can be left open for ventilation. This makes an ideal incubator house.

Throw up dirt to top of wall on all sides, except south end, and put in a double door wide enough to carry out any incubator set up.

The air in such a house always smells free from lamp smoke, and if you fail to get good hatches in such a house you will know it is not the fault of the house.



A FIRST-PRIZE COLUMBIAN WYANDOTTE COCKEREL.

CHAPTER XVI

How to Run an Incubator

I want to say a few words here in regard to running an incubator, especially to the beginner. First, after setting up your machine and starting your lamp, you must let up your regulator. Keep unscrewing it until temperature goes up to $102\frac{1}{2}$ degrees. Remember the temperature cannot raise when your disk over lamp is raised. But when you get temperature to $102\frac{1}{2}$ and your disk raised one-eighth of an inch, or so it just clears, then your machine is ready for the eggs.

Better run your machine twenty-four hours after you get your temperature right before putting in the eggs. As soon as you put your eggs in your temperature will disappear; give your machine twenty-four hours to get back to $102\frac{1}{2}$ degrees. Run your ventilation according to directions sent with the machine you use.

Change trays from side to side in the morning and from end to end at night in a two-tray machine, and turn the eggs at end of third day and fourth day. After this turn twice a day until eighteenth day. Turn last time at end of eighteenth day, but continue to change your tray from side to side and end to end until you see the first pip. Handle your eggs very carefully at end of eighteenth day on, and do not jar them in changing your trays. Now, remember, animal heat begins to take place after seventh day and your temperature will begin to work up and you must give your regulating nut part of a turn every time the temperature crawls up to 103 , so as to keep it down as near $102\frac{1}{2}$ as possible, if you are operating your machine in a room which registers above 65 degrees. If not over 40 to 45 degrees, then keep your machine at 103 and do not air your eggs.

In a room of 50 to 70 degrees begin airing your eggs on fifth day and air each night, depending on temperature of room.

A good airing for an hour or two on seventeenth day will much improve your hatch in warm weather.

Give plenty of air during hot weather.

Good, fresh eggs hatch much better than those kept two or three weeks.

If you are hatching white eggs test them on fifth day, and take out all clear eggs and dead germs.

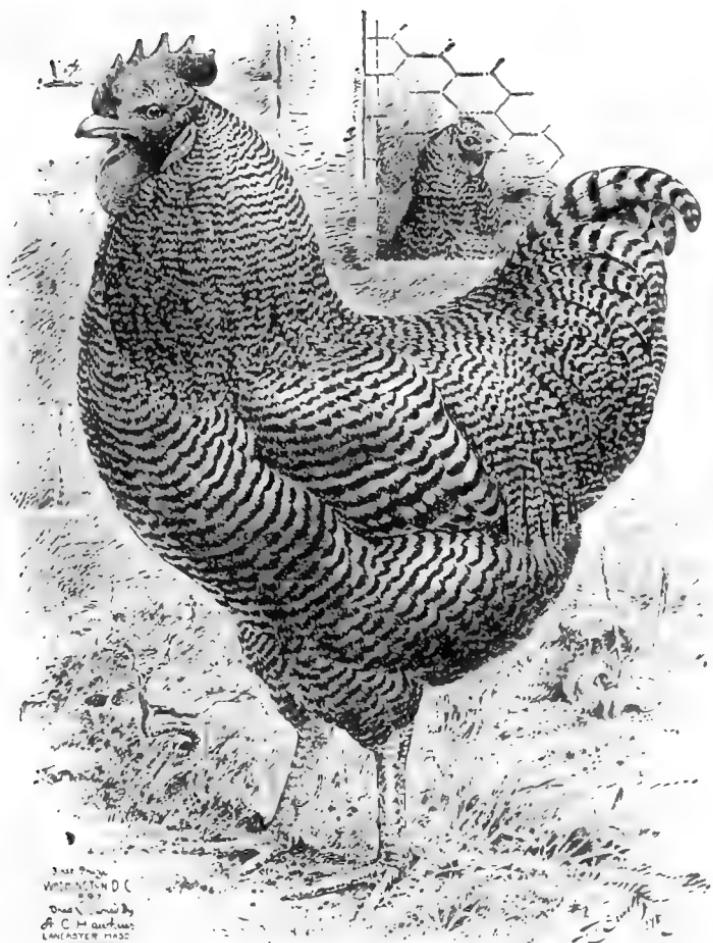
If you are incubating brown-shelled eggs leave them in seven days, when you can test them nicely, taking out all clear eggs and dead germs.

They should be tested again at end of fifteenth day. Remove all dead eggs and if you have not a good, fair-sized shell you must give more ventilation, for you cannot get a good hatch without a good-sized air cell.

After you see your first pip do not open your machines again under any circumstances until your hatch is practically through, say the morning of the twenty-first day for Leghorns and end of twenty-first day for all large breeds.

Leave chicks in incubator fully twenty-four hours after all are out.

Just a word about buying an incubator. I have tried nearly all the leading makes of incubators on the market, and I firmly believe there is no machine made to equal the latest Cyphers, made by the Cyphers Incubator Co., of Buffalo, N. Y. It is far ahead of their old style machine, and the increased depth to the egg chamber with their nursery drawers makes it a first-class hatcher in warm weather as well as cold. And I believe it to be as near perfect as a machine can be built, and if you fail to get a good hatch with it, as a rule, you will know the fault lies either with yourself or the eggs. Now comes the most difficult part of all, the business of raising the chicks. Here is where they nearly all fail except those using my system.



3rd Place
WINTER HATCH D.C.
1997
Duck & Gandy
A.C. Hartman
LANCASTER HASC

A BARRED PLYMOUTH ROCK WINNER

CHAPTER XVII

Chicks Raised Nature's Way

First of all you must get the best brooder made if you expect to be successful, and if you are not in the broiler business and do not want to hatch only breeders, then I advise getting your first hatches out about March 20, and for this system, on a large scale, taking everything into consideration, I believe to-day there is no brooder made equal to the latest Cyphers Self-Regulating Brooders for outdoor use, costing \$17. This brooder can be successfully used out of doors from March 20 on, and you never have to worry about your heat nights, as long as you run a good, big flame, for it regulates the same as an incubator, so there is no danger of overheating your chicks nor chilling them as long as you keep flame enough to keep up your heat. These brooders will safely carry 75 to 100 chicks, and if they are hatched strong and properly cared for according to my instructions you should raise nearly every chick put out.

To do this on a large scale, to raise from three to six thousand, you must keep some one among your chicks all the time if you do not want them all carried away by hawks and crows and various other animals, as there is nothing we raise that have so many enemies.

I will here name you some of their worst enemies when they are small: Hawks, crows, rats, weasels, cats, skunks, woodchucks in rare cases, raccoons, foxes.

Select for raising your chicks a nice, large orchard if you have one; if not, you must put up some artificial shade. Put your brooders in rows across the lot, about ten feet apart, and try to hatch in one week enough chicks for a row of brooders. About sixty feet in front of this row put a one and one-half foot fence of one-inch mesh wire netting; then another row of brooders-

about eight feet from this fence; then another fence, same as the other.

It makes no difference how many brooders on a line, twenty could be handled all right if they were all filled with chicks at near the same time.

If the field was near level they would equalize themselves all right in the brooders.

You can safely put seventy-five chicks in each brooder and should have no trouble in raising seventy of them to maturity if you follow my instructions to the letter.

For feed and care I first grind fine all eggshells they hatch from, and feed these for first three days, putting chick feed before them the second day. You must see that they are never out of feed again as long as you own them. Here is one of the secrets of success, for if your chicks always have free access to feed, they will never overeat and die of indigestion. As soon as you put them out give them fine grit and fine charcoal, also water that is lukewarm, and your eggshells, and, as I said, next day put chick feed before them.

On the third day also put beef scraps before them and see that they are never without it. Begin feeding them processed oats, same as you do your hens; on the seventh day they will quickly take to it and eat off all the roots and sprouts, leaving nothing but the hulls. Feed them all the processed oats they will take from then on, say three times a day. Do not be afraid, for they cannot overeat of it, and remember this costs only ten cents a bushel. You can thus see how cheap you can raise your chicks.

Remember, from the seventh day on, your chicks must have always before them water, chick feed, grit, charcoal and beef scrap; also feed three times a day all the processed oats they can eat. I generally set a panful in the pen first thing in the morning and again at noon, dump-

ing out the hulls every time. And again at about 4 p. m. I see that they have just all they can eat, and I wish you could see them grow. It is a pleasure to raise chickens this way where sickness is scarcely known.

After three weeks change from chick food to a good quality of wheat screenings, which must also be kept before them from then on as long as you own them. It is giving grand results, and I know of nothing that can in any way compare with it for growing young chicks, and nothing so cheap as this screenings and processed oats. If you cannot get good screenings use wheat.

After three days old your chicks should always have before them grit, charcoal, beef scraps, chick food, until you change for wheat screenings or wheat, and water to drink—and good, clean, fresh water is very important—in fact, thousands of chickens are lost every year through dirty water and filthy drinking dishes, as disease starts in the drinking fountains in many cases.

If your fountains are not kept clean, and if you are not particular and wash out your fountains every time you fill them, slime collects on the inside, and I consider this rank poison to the chickens.

The best fountain you can get is the two-piece earthen fountain, which keeps the water cool and clean. I would not use any other kind under any circumstances. If you can yard your little chicks on a stream of water, so much the better, and much labor is saved.

When your little chicks are first put out, they should be looked after several times a day, and you must see that they do not get chilled.

Keep your brooder at 95 degrees first five days, then it should be lowered to 90 degrees, after two weeks to 85 degrees, and after three weeks to 80 degrees and gradually harden them off, depending on the season of the year and the weather. Here is where common sense



WHITE WYANDOTTE FEMALE

and judgment counts. Give your chicks heat just as long as they want it if you wish to attain the most rapid growth, and this is what counts if you wish rugged birds of extra good size, for such birds, as a rule, are never sick.

After your chicks are four weeks old give a light feeding every night of cracked corn until they are matured. If they are Leghorns this can be kept up as long as you own them with grand results.

I am now going to give you the secret of success in raising your chicks and putting them over the danger period, especially Leghorns, which is from twenty to forty days old. This is raising them nature's way.

In front of my colony house brooders, say six feet, I plow a good, big strip the entire length of all my brooders. I do this the day chicks begin to hatch, and I sow this lightly with oats. By the time the chicks come out of their brooders the oats are nicely sprouted. I let the chicks out of the colony brooders the third day about 10 a. m., if weather is nice. The next day I let them out I run the harrow over the ground and sow more oats. Every day after this I harrow this ground. And I sow more oats every other day. The result—the chicks keep at work from morning until night and never get time to become sick.

You ought to see them grow on this system. I consider this the only perfect way to raise chicks, and the only successful way. Pullets raised this way should lay at four to five months of age.

As soon as they weigh two pounds each, or near this weight, the cockerels should be marketed—except what you use for breeders—and these should be separated from the pullets in order to mature them fine.

If the eggs which your chickens are hatched from are produced under my system you should have no trouble in raising fully ninety-five out of every hundred you

hatch, providing the eggs are from yearling hens or fully matured pullets

Bear in mind the most critical time of your chick's life is between twenty and forty days old. This is the period they must not be neglected, as they begin to grow rapidly at this age.

You must sow more liberal of your oats at this time, and do not neglect your harrowing, for it takes but a short time each day.

You must also give your chicks all the processed oats they will take at this time.

In order to economize and save labor, as soon as the chicks are large enough to leave the brooder, you can move your pullets to your laying houses; that is, the pullets which you want to keep for your own breeding stock to take the place of your yearlings.

When you want to replace a flock of old hens with pullets just put a lean-to on back end of your laying houses—say 6 by 6 feet square would answer every purpose. You can put this up with a single pitch roof and a wire netting front, and put some low roosts in here and shut in sixty of your finest, largest pullets for three days, when you can let them run with the hens.

Feed chicks in their own department in an open trough, keeping it full of wheat screenings; also beef scraps before them all the time; also grit and charcoal. They will grow fine here and mature very rapidly.

When you sell your old hens just shut chicks out of their department and they will go right in the main house and never have to be changed. When they start to laying, they will keep right at it, and you will gain a full month's eggs under this system.

This lean-to is also very handy for shutting up setting hens and various other purposes.

For earlier hatches, if you find you want to hatch very early and also to have some houses to carry over some

surplus birds, in case you go in the fancy stock, you can build one row of houses same style as your laying houses, only one-fifth smaller. Use sixteen-foot plank, and make your house eight feet wide and sixteen feet long, outside measure, in each case. Make your house four feet high at eaves, same as your laying houses. For the roof, saw a sixteen-foot board in three pieces, and saw rafters five feet one inch long. Build it the same as laying houses, with wire netting partition, and you have an ideal house for the business. Put in windows the same size as you use for your laying houses, one in each side in center of each department; also a slide under each window for letting them out.

Use a good indoor brooder for these houses. I can sell you a good brooder for \$5 to put in these houses—one that will raise your chicks. You cannot put up too many of these houses, for I consider this the ideal way of raising chicks.

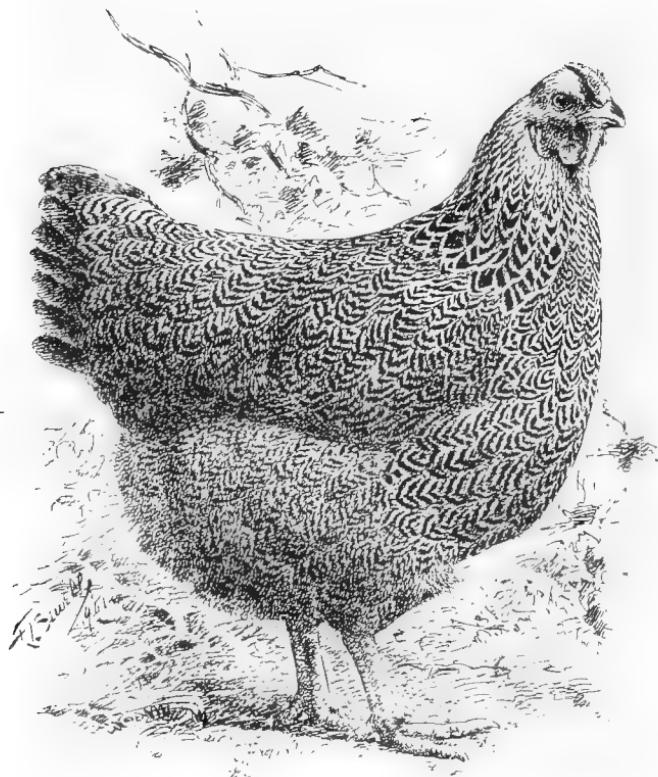
Now handle these chicks just the same as I have outlined for the others, except you use these houses in February and March, when you cannot plough the ground, so you will start these chicks same as I have told you, except on the seventh day you begin feeding processed oats to your chicks, and give them all they will eat of them from then on, and see that they are never out of chick feed. It will be a pleasure to see them grow, and sick chickens will be rare under this system of feeding—and your cost in raising them will be very light, as you will find their main feed is processed oats at 8 to 10 cents a bushel.

When your chicks are large enough to think of roosting, and need heat no more, you should market the cockerels for squab broilers, if possible, at eight to ten weeks old, and remove your pullets to your laying houses.

Your brooders are then ready for another batch of later chicks which can be allowed to grow up in these houses.

You will find these houses very handy for wintering surplus cockerels and pullets, and it is always nice to have some surplus birds on hand.

I think I have made things very plain, and if you will follow my instructions you will have no trouble in raising your chicks, providing your eggs are produced under my method of feeding, from healthy stock.



PARTRIDGE WYANDOTTE HEN

CHAPTER XVIII

Raising Broilers—Bowel Trouble, Its Cause and Cure

This chapter is written expressly for broiler men and those who keep their hens mainly on mashes.

As I have been through the same experience in my day, and have seen whole broods die off like poisoned flies with bowel trouble, and have tried everything I had ever heard of, but with no results until I took all feed away for three days and gave only charcoal to eat and boiled milk to drink with a good quantity of black pepper put in and this stopped the diarrhea completely. But many would die any way, so I experimented even further, for you can depend upon it if some in each batch have it on the start of the season it will get worse every hatch. So, for first three days I gave only charcoal to eat and boiled milk to drink, with plenty of black pepper in it. The result was I had scarcely a case of it after this. But these chickens I found were very difficult to raise anyway, so I had to look still further for my trouble, and I found all the trouble lied in the feeding of the breeders. You will find in nearly every case the foundation of all your trouble lies in your breeding stock.

If you want healthy, rugged birds, free from disease, never feed them a mash.

The cheapest way of all to feed and have healthy, rugged birds, free from disease at all times, is to feed as I have told you, except in place of your light mash at 9 a. m., give your hens a good feeding of processed oats, nature's own feed. If you will produce your eggs in this way, from yearling hens mated, with fully-developed cockerels, not less than ten months old, you can raise practically every chick you hatch, even in a long-piped brooder-house, providing you can run your temperature

anywhere from 80 to 95 degrees. This, you know, is a big variation; but strong, healthy chicks can stand a lot and not get sick. Once they get sick, they will bunch up, and this is the last of them, for they can die about as fast as you can hatch them.

You will find most of the big breeders, who are in the fancy stock raising, all use hens for hatching and raising them, and get all their neighbors to hatch and raise for them, for they cannot hatch them and raise them with incubators and brooders, just because their breeders are fed on mashes, so as to get a big yield to supply their large trade in eggs for hatching. Nearly all the eggs sent out for hatching by the single settings, at a big price, always are hatched by the old hen and raised by them on free range, which will pull them through if anything will.

Under my system of feeding eggs laid here in January are running 90 per cent fertile, and have hatched as high as 93 $\frac{3}{4}$ per cent of fertile eggs.

Other years' chicks, weak and sickly, almost impossible to raise, which shows you without a question that it all lies in the feed.

You can see at a glance why every one who has tried the broiler business as a business has failed at it. I defy any one to find a profitable broiler plant, but I am satisfied it can be made to pay under my system of feeding and in no other way yet known at the present time.

I want to say to you broiler men, with your long-piped houses, give them one more trial with eggs produced under my system of feeding and your troubles are over.

From January until June you can hatch broilers at a splendid profit under this system, for you can grow your later hatches up and make roasters of them at a grand profit, for under this system of feeding your birds will grow very rapidly and develop fully one-third quicker

than fed the old way, stuffed with mashes. When fed the old way you will lose a large number with colds and roup, and have but few well chickens to sell.

Just a word here in growing your birds for roasters. Either good wheat screenings or wheat which I feed must be kept before them all the time; also a first-class beef scrap and grit, charcoal, and good fresh water. And they should have one good feeding of processed oats about 9 a. m.—all they will eat. At night give all the cracked corn they will take, and you will grow roasters that will be a credit to you, and sickness among them will not be known, and your profit will surprise you.

But you will find it to your advantage to market them as broilers as long as they bring 25 cents a pound and more.

A pan of corn meal, set where they can eat all they want whenever they want it, will also fatten them nicely. Do not wet it, but let them eat it dry.

Under these conditions only can broilers be made to pay a profit, and you can raise them well into the summer on this free-range system of cultivating the ground. But just as soon as you fail to raise 80 per cent of your hatch, better stop and sell your eggs.



CHAPTER XIX

Diseases—Their Cause and Cure

I am going to write a few words here on diseases of chickens, of which there are many; in fact, so many that I will only mention a few which are apt to give you trouble.

First. I will take the cause, which is improper feeding in nearly every case. All colds, roup, cholera, bowel trouble come from improper feeding. This also causes lice, which live on the hen, or rather the poison thrown off her system.

Heavy feeding of rich mashes will quickly knock out your birds and various diseases will soon step in.

Our old-fashioned farmers never knew what colds and roup were. but of late years many farmers have been feeding mash to increase their egg yield, and the result—colds, roup, cholera.

If you will feed my way and cut your mashes out you will not be troubled with disease. Roup and cholera will not be known. If you see a hen sick just give her a tablespoonful of castor oil and in twenty-four hours more, if she is not all right, give her another spoonful. If she is no better at the end of next twenty-four hours better cut her head off and burn her up for she will only mope around and finally die.

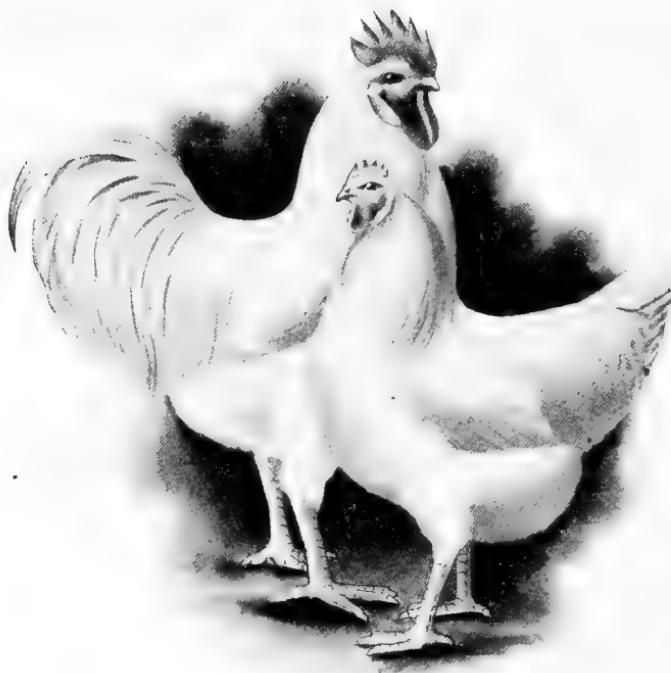
I find roup and colds in fowls grown, or nearly grown, can be cured in nearly every case without medicine by feeding them my way, and partly grown to one-third grown birds will improve very rapidly on this hopper feeding, and by the aid of good roup cure you can save nearly every bird and get them well and strong. But never give them a mash.

You may occasionally have a hen go light, but very rare on this method of feeding. I find corn is the cause

of most birds going light. I have proved this to my entire satisfaction. Corn or cracked corn will not do at all kept in hoppers before your hens, as they will grow poor and go light on it unless on plenty of range, but it can be kept before them without injury where two or three other kinds of grain are kept before them at all times. If you follow my system in every detail you will have no medicine to buy, as sickness will scarcely be known on a free-range plant. But if you have a small yarded plant overcrowded in a very low, damp place, why then you will get some sick birds, and colds and roup will be apt to break out in a light form any time, and in such a place you should always keep a good roup cure on hand, and there is nothing I have ever tried as good as Conkey's Roup Cure. This will also tone your birds right up and is a splendid tonic during the spring and fall. Often in September, about the 10th, a temper is apt to strike all your young stock, and affect them in various ways, especially the stock not fully matured; so I strongly advise on all yarded plants to give Conkey's Roup Cure in drinking water, one-half dose from first to tenth of September, when I would give full dose through rest of month and first half of October, and you will be well paid for it. All of Conkey's remedies are first-class and their advertisement will be found in this book.

Hill's Bromide Quinine Tablets are also very good for severe individual cases which will occasionally break out. A tablet night and morning for a couple of days will generally bring most any bird in good shape if taken in time. They can be bought in any drug store for 25 cents per package, and should always be kept on hand. You must expect to lose some birds during the spring, when they are laying heavy, but your loss should be light if my instructions are followed, and your yards are plowed up as early as possible in the spring, especially on

a yarded plant, for much filth is bound to accumulate during the winter close in front of your houses, and your hens constantly scratching in this is apt to sicken them. Air slack lime should be sown in these runs several times during the summer, say once every two months, and also on the roosts lightly once a week. This is for yarded plants only, for on a free range you do not have these things to contend with.



WHITE PLYMOUTH ROCKS

CHAPTER XX

When and How to Start in the Poultry Business

Now comes the important part to the one who is going to start in the business, when to start, and how. Now, in either case, you should start in the fall, if you wish to start on a large scale, for your buildings should be put up in the fall, even if you start by buying your eggs and raising your own breeders. This is by far the cheapest way to start if you have not much capital. Get your incubator house ready in the fall, providing you have not a house cellar, which will answer for your first year.

You can get your brooders all right in the spring if you only raise breeders, but cannot start so early as where you have a brooder-house. But the Cyphers Self-Regulating Brooders can be used out of doors very early in the spring any time after March 1, as a rule. Pullets hatched midde of March should lay in August under my system of feeding, and keep right at it from then on. I can sell you all the eggs you want from either single-combed White Leghorns or White Wyandottes, produced under my system of feeding, at \$6 per one hundred in any quantity on short notice—eggs that will run 90 per cent. fertile right in January. Now, to the one who is well fixed, financially, I advise him to start in the fall. I advise putting up your laying-houses during July and August, and buy your pullets as early as possible during the fall. October and November are usually the two months when you can buy cheaper than at any other time of the year.

You should have no trouble to buy all the pullets and yearling hens you want of single-combed White Leghorns during these two months at \$1 each. This is a very satisfactory way to start, but not so cheap as buying the eggs and raising your own stock.

You must buy eggs of a party who feeds little or no mash if you wish to get good hatches of chicks that will live if given a half a chance, for when an entirely inexperienced man tries to raise them they must be from hardy stock.

You do not have to wait many months for profit to come in when you buy your eggs to start with, as you can market your cockerels for broilers. In three months from the time you set your machines you can count on quite an income, so all things considered, with the experience you get, I advise starting in the spring by buying your eggs and raising your own chicks.

These chicks can be raised very cheaply under my new system of giving them all the processed oats they will take three times a day, in connection with a good chick food before them all the time, as well as grit, charcoal, and beef scraps.

You should clean your brooder out at least once a week, which I find answers every purpose. Also keep your brooder part, where chicks are fed, covered with cut clover, as they eat much of this, and it is very beneficial to them.



WHITE WYANDOTTES



SINGLE- AND ROSE-COMBED WHITE LEGHORNS

CHAPTER XXI

A Leghorn Plant for Profit

I want to say just a few words here as to what a Combination Leghorn Plant can be made to do, and to tell you how to run such a plant for the greatest possible profit.

First of all, your great aim must be the production of eggs, and for at least six months in the year you must feed this plant to produce not only eggs that will hatch but to produce eggs that will hatch chickens, that will live, cared for any old way. If you will feed your plant this way, and advertise eggs for hatching, producing fertile eggs that will hatch strong, healthy chicks, that will live if given half a chance, and offer to replace all clear eggs free if returned, express prepaid, I am very positive a man with three thousand layers could clear from \$8,000 to \$10,000 a year, providing he feeds them on my system and gives them free range.

You should sell your eggs during the hatching season for \$6 per 100, or \$50 per 1,000. Possibly you could make more money by selling them for \$5 per 100 in any quantity, and make no reduction for quantity, for \$5 per 100 is the popular price of good, hatching eggs in this country. There is a grand profit in it when you produce them in such large numbers at so small a cost.

Now for your breeders, their care, and feed.

You must not feed a bit of mash. I will lay you down here the ideal way to feed for fertile eggs at a small cost either a yarded or free-range plant for Leghorns only.

Beginning in December, the first thing in the morning, as soon as it is light, give your hens a light feeding of buckwheat or barley in your litter; about $1\frac{1}{2}$ quarts for 60 or 75 is plenty. Give warm water to drink as early as convenient, and at 9 a. m. give each flock all the pro-

cessed oats they will take. At 1 p. m., when you give your flocks more water, or put in warm water with what they have, give on this trip a light feeding of green cut bone—a quart to a flock of sixty, if they will take that much, if not, cut them down to a pint.

About 3 p. m. give another feeding of processed oats, all they will eat. Remember, these only cost 8 or 10 cents a bushel.

Before dark give not over 1 to $1\frac{1}{2}$ quarts of cracked corn to a flock, and gather your eggs. If it is very cold weather, you will also have to gather your eggs on your 1 o'clock trip.

These birds must have always before them grit, oyster shells, and charcoal. Also a hopper of beef scraps and one of wheat screenings or wheat.

Just a word about mating up your breeders to produce chickens, which should practically every one live.

To do this, take all your yearling hens and mate them with cockerels, not less than ten months old. Put these birds on my free-range system, and feed as I have here directed, you can then raise practically every chick you hatch.

Pullets also hatched in February and March, mated to good, vigorous yearling cocks, will also produce chickens that are very hardy when a year old, and you should have no trouble in raising 90 to 95 per cent. of these chicks.

Under no circumstances use anything but a single-combed White Leghorn for the greatest profit, because they lay the largest egg of the Leghorn family, and are by far the most popular of the Leghorn family.

To dispose of your breeders to the best advantage during July, August, and September, you should make a great clearance sale at \$1 each. You will have no trouble to dispose of all your surplus stock at this price, and you will find this far preferable to putting them on the market.

Care for your plant during the summer as I laid down for summer care and feeding.

Just a word here in mating your male birds, for where you follow up my system I advise four cocks or cockerels for every sixty layers. These birds should be so mated that there is no fighting among them, and no "boss," as a rule.

After your breeding season is over, say July, you should remove nearly all your male birds and make one flock of them, except a few flocks, which it would be well to keep mated the season through, so you can always fill a stray order for hatching eggs.

Your cockerels should also be separated from the pullets and placed in one large flock, or several flocks of one hundred or less in a flock. In this way these male birds run together very peaceably and rarely ever fight, and you rarely see a "boss" among them.

To mate them up, just take out of a bunch as many as you want for a flock of females, all at once, and let them go. You will then have no fighting, and very seldom even a "boss." This is the only way to mate up your birds for the best possible results.

Never keep a brassy male bird. Have nothing but pure white birds on your place, and you will find your profits can be greatly increased by gradually breeding into fancy birds.

Show a few at your fall fairs or local shows. Get a Standard and study them up. By careful selection you can soon have a plant of very fine birds.

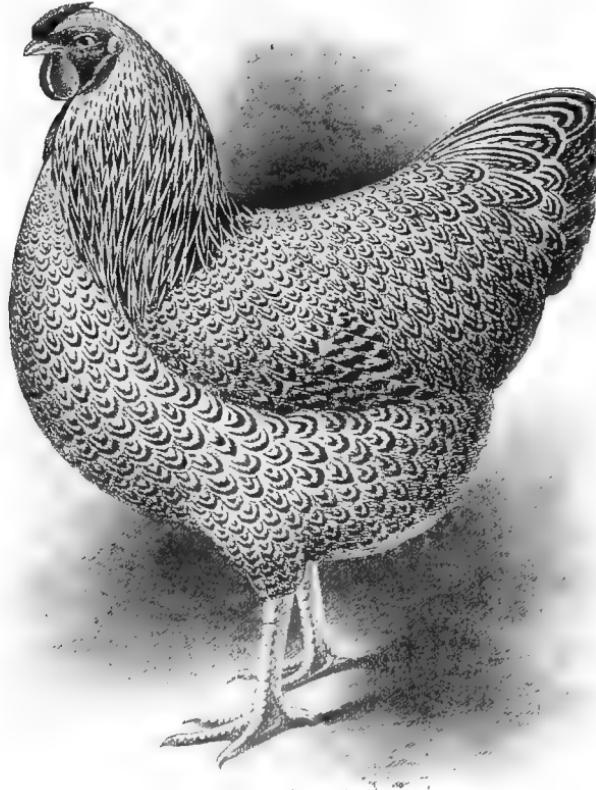
Do not try to show at the big shows, such as Madison Square Garden, or Boston, for it takes years of study or a large sum of money to win at such shows as these.

Just a word about your houses and I am through. If the houses I have given you the plans of in this book are not warm enough for your location, you can build them six feet at the eaves instead of four by using a twelve-

foot board sawed in half in the center. Put a loft-floor in this house at eaves and fill the top with straw. Do not put on a tight loft-floor; a floor of poles would work all right. You should also line the sides in the same way, and you would have a very warm house, where you could get eggs in any kind of a winter.

I want to say right here the Leghorn plants of this country are the only plants up to the present time that have made money in a market way. Eggs for market, at market prices, have made many of them rich.

All that have tried the larger breeds, such as Wyandottes, Rocks, etc., have failed at it in a market way, so they have all had to go in the fancy, or give it up entirely.



COLUMBIAN WYANDOTTE

CHAPTER XXII

A White Wyandotte Plant for Profit

I have decided to add here a chapter on White Wyandottes, as I have bred them all my life, that is for the past eighteen years, and exhibited them all that time. I have seen them head all the large breeds in popularity, but the demand for them increases yearly. I know of no breed of the large fowl where it is such hard work to get good, fertile eggs that will hatch strong chicks, that are bound to live any old way, as it is from the White Wyandotte that have been bred for exhibition purposes in yarded plants.

In breeding exhibition stock every trace of creaminess or brassiness had to be bred out of them, and their stability has gone with it to a large extent.

Inbreeding has also done much to injure the vitality of this breed.

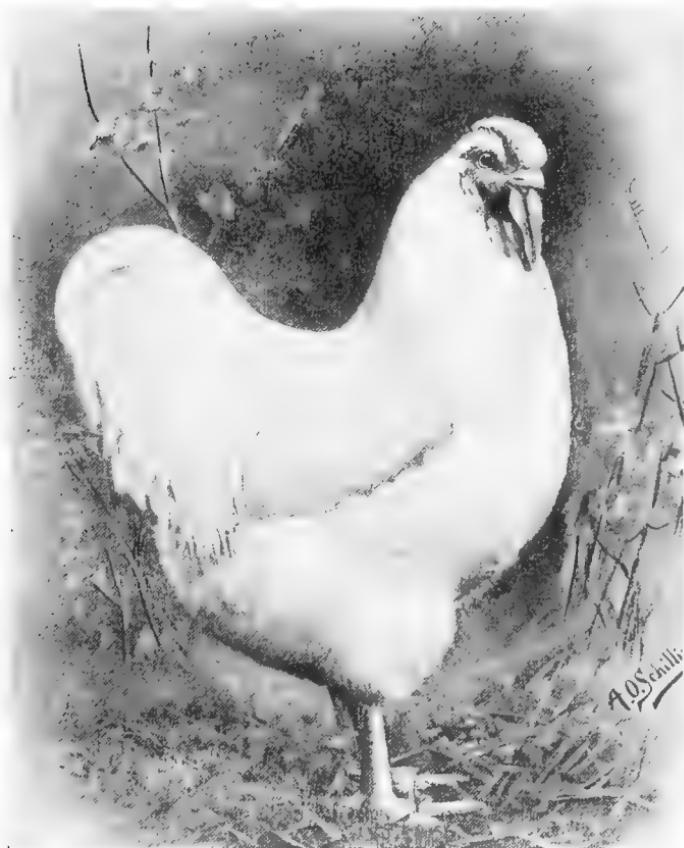
My aim here is to tell you how to feed and care for these birds, so you can get them hardy and full of vigor once more, without breeding out their fine qualities—and this can be done by feeding alone.

I have experimented very carefully along this line and I find all large breeds should be fed quite different than the small breeds

First of all they should never see corn in any form—that is, the breeding stock. If any corn it must be in very limited quantities.

I find they will stand the hopper feeding and give grand results. In fact, this is the only natural way of feeding any fowl, and the only safe way of feeding.

First of all give them your hopper of beef scrap and wheat screenings; also grit, oyster shells, and charcoal. The first thing in the morning give a light feeding of barley or buckwheat in litter to induce all the exercise you can.



FIRST-PRIZE WHITE WYANDOTTE COCKEREL
OWNED BY A. C. HAWKINS

At 9 a. m. give all the processed oats they will take.

At 1 p. m. a light feeding of green cut bone, a pint to a quart for sixty layers.

At 3 p. m. all the processed oats they will take.

At 4 p. m.. or later, according to the time of the year, another feeding of oats. This should be fed to all large breeds in place of cracked corn.

Always use clipped oats, and feed in the litter, and you will not only get an abundance of eggs, but eggs that will hatch strong, healthy chicks that will live. Such eggs will run from 80 to 90 per cent. fertile right in the winter months.

I am not guessing at this, for I am doing it right in February.

Do not be afraid of the processed oats, but give all they will possibly take for they are very light and it is impossible to over-feed on them. There is nothing I have ever tried that will make hens lay equal to them, and nothing so cheap. It costs only about half to feed a plant this way.

You can always sell any amount of eggs for hatching at \$5 per one hundred.

I am positive you could sell all a three thousand laying plant could produce for hatching by a liberal amount of advertising on the same lines I told you how to advertise Leghorn eggs.

You could sell a large quantity of breeders for good prices, if you will start with family good stock and exhibit at the small shows on the start.

One thing you have to contend with on a Wyandotte plant, you do not on a Leghorn plant, and that is setters. This means quite some work, but you will not have near the amount of setters on a plant fed this way.

To properly break up a setter, they should not be allowed to remain on the nest the first night, and as a rule three days will break up any setter. Or, if you want to

break her up in twenty-four hours, just put her with a bunch of surplus cockerels, where a roost is handy, and your hen will not think of setting.

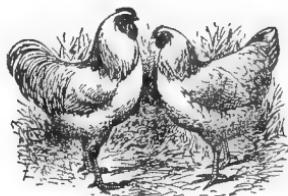
There is no breed at the present time so handsome as the White Wyandotte, when bred up for show purposes, and no fowl that makes so fine a broiler and roaster when they are grown up healthy and rugged, that is, nature's way, and this can be done on the feeding I have outlined on my free-range system. You can get eggs right in January that will run from 80 to 90 per cent. fertile, and give you grand hatches of strong, rugged chicks that can be easily raised right in the winter—and you will have no trouble to dispose of hundreds of laying pullets during September, October, and November at \$2 each. There is a grand profit raising pullets at this price, when you can raise 90 per cent. and more of all the chicks you hatch, and raise them largely on a feed that costs you only 8 to 10 cents a bushel. So you can easily see what a profit you can make by running a large plant my way.

Your small feed bills would surprise you, after feeding the old way.

I am positive \$10,000 a year can easily be made off a plant of three thousand layers, and even more when you work into high-class show birds and get \$3 to \$5 a setting for many of your eggs, and \$15 a hundred.

Sell high-class birds from \$10 each up to a hundred. It can be done by pluck and perseverance.

A White Wyandotte plant of three thousand layers could turn in a greater profit than the same number of any other breed fed, and run my way, which is nature's way, providing it was handled by a White Wyandotte fancier who thoroughly knew the value of his birds.





WHITE WYANDOTTE HEN

CHAPTER XXIII

A Combination Plant for Profit—Fruit, Poultry, Bees

I feel that I must write a few words here on a combined plant for those who want to go on either a small or large scale, and do not want their eggs all in one basket; or to those who like a variety in life—for variety is the spice of life.

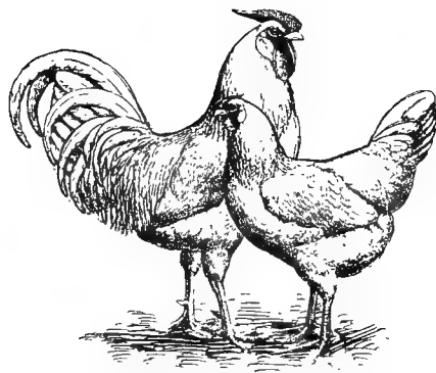
There is no combination of business, that I know of, so profitable, and at the same time will give so much pleasure in various ways as this. First of all, every poultry plant should be covered with fruit. This is the very first thing you should do. To provide your poultry with shade and a peach tree gives the quickest shade of them all. Then the plum and the apple, and you are bound to get immense crops of fruit, where you cultivate your ground, and use your poultry manure around your trees. And when you are feeding your poultry, how nice it is to have all the peaches you want to eat, or plums, or pears, grapes, and, in fact, you should plant liberally of all kinds of fruit, and you will find life worth the living.

Now you want bees to fertilize your blossoms, so you will get large crops of fruit, and bees are very profitable and afford a great amount of pleasure. They are very profitable; in fact, they often turn in a greater amount of profit, time and captial taken into consideration, than anything I know of. I have cleared as high as \$25 from a single hive in a season with but little labor. You have to give them no attention to speak of from October 1 to May 1, and for only two months, May and June, do they need any great amount of attention.

I advise every one who keeps poultry to make of it a combined plant—poultry, fruit, and bees.

You must remember that fruit-trees you must have on your poultry plant for shade, if you expect your poultry

to do its best, and there is but little labor to care for a big lot of fruit in this way—and there will be years when your profit from fruit alone will not only give you a good living but will give you a good, fat bank account as well. Just think of eating peaches, for instance, from the 1st of July until November. This can be done, if you will plant several kinds from the earliest to the latest. You can also have all kinds of apples, plums, cherries, and other fruit in the same way, grown at no expense, on your poultry farm and any one should enjoy life under such circumstances.



PAIR WHITE LEGHORNS

CHAPTER XXIV

Breeding for Layers

There is no question but what it pays to use a good trap-nest and breed up your stock for layers. A few of your best flocks could be used for this purpose. Pullets would give you the best test for this, for after a month or two you would know which ones were laying the best, and at the end of the first year you could take all with a big egg record and keep them over, especially for your own breeders. In this way you could soon build yourself up a wonderful strain of layers that, if cared for and fed on my system of free range, you would soon have flocks averaging you two hundred or more eggs a year. It is not possible in any other way, in my opinion, and this is the only sure way of breeding high-class show birds. Those that win the blue in the hottest competition, and it would not take so much extra time as you would think, for you could release your hens on every round you make. By breeding from the yearling hens that gave you the big egg yield as pullets, you would not have to trap-nest your hens the second year. In this way you could easily develop a wonderful strain of layers, which would more than repay you for time spent. In fact, a big plant could well afford to hire an extra man for this purpose alone—that is, on a three thousand laying plant it would pay to hire a good man to do nothing but take care of your eggs and trap your hens. In this way I am positive you could soon have nothing but two-hundred-egg hens.

CHAPTER XXV

Molting

I wish to say a few words here in regard to molting especially on a yarded plant, for on a free-range plant I believe in keeping them laying right through the molt, for, as a rule, when they have practically their entire new coat, they will in most cases stop laying and take a rest, for a hen must have a rest and time to build up. For, as a rule, on a free-range plant, when you continue your harrowing and sowing oats you can keep your birds laying pretty well all through. October and November, when they will drop off and have their rest, then you should have your pullets under full head way if you are in the market egg business. But if you depend on selling eggs for hatching, then I advise you to let your hens have their rest during November and December, and get them under full headway in January, then you will produce eggs that will hatch, and if other things are favorable, your eggs should run 90 to 95 per cent. fertile from January 1 on, and hatch equal to eggs laid in March and April, providing your hens are fed under my system.

Now, in caring for a yarded plant, you will find your hens will slack off heavy during July and August, and during September, October and November you will get but few eggs from the large breeds, and, as a rule, all things considered, taking the eggs you get in consideration and getting your stock in the best possible condition for winter eggs, I advise keeping your hens on nothing but processed oats and beef scraps, for this will put them through the earliest molt of anything I have ever tried, and your oats should contain sprouts one-half inch long for this, and will cost you about 12 cents per bushel. You will also be surprised at the amount of eggs you will get during this period.

December I put before them their hoppers of wheat screenings or cheap wheat and to every pail of processed oats add one teaspoonful of cheyenne pepper and one of salt, which makes your hens very thirsty, and the more water she drinks the more eggs she will lay. Your hens will respond to this treatment and surprise you on eggs and should lay as well during January as any month in the year.



WHITE LEGHORN COCK

CHAPTER XXVI

Feeding and Selecting Large Breeds Important

I want to say a few words here to those who have a love for certain large breeds and wish to keep them, even if their profits are not so large. And many of you who have read the preceding pages of this book may get an impression there is no profit in any other breeds only the ones I have strongly advised. I do not want you to think this, for any one with push and advertising can boom any breed to a certain extent, but this takes money. I will here name some of the most important large breeds which there is a good demand for and money in. Barred and White Plymouth Rocks, Buff Orpingtons; also White and Black Orpingtons; Columbian Wyandottes, Rhode Island Reds, the great winter layers, and for broilers their eggs have a great sale. Two of the handsomest of the large breeds, which are now much neglected, are the Buff Wyandottes and Buff Plymouth Rocks. They are great layers, and it remains for some good fancier to again bring them to the front. There is money in any of the breeds I have named as well as others. Now remember all large breeds need free range to do their best, as they do not stand confinement near as well as the Leghorns. To those favorably located on farms and can raise crops I will lay down here the ideal way of feeding all large breeds during winter for the most eggs, and for yarded plants the year round. This same system can be applied to Leghorns with wonderful results. This method of feeding will produce the most fertile eggs of any system in existence, no matter what any one tells you. Now, instead of hopper feeding, you must raise a piece of wheat, or barley, or oats, and when ripe cut it and bind it in sheaves and put it in your barn. Do not thrash it, and in November begin to give it to your hens in the sheaf, and let them thrash it. Give a sheaf first thing in the morning, and 9 or 10 a. m. give a feeding of pro-

cessed oats, and if they need more grain, depending on the size of your flock, you can give another small sheaf at noon, or give a light feeding of cracked corn in the straw, and at 3:30 to 4 p. m. give another feeding of processed oats with Lee's egg-maker mixed with them, according to directions with it, and you will never fail to get an abundance of eggs, and at the same time your birds will be in the pink of condition, and eggs produced under these conditions will not only give you wonderful hatches of chicks, but chicks that will live and grow with half a chance. I will also say here that Lee's Germazone is a grand remedy for bowel trouble in little chicks, and very simply given; just put in drinking water according to directions with it. You should always keep it on hand. You will see here that I have cut out beef scraps, for good beef scrap is very high and very hard to buy at the present time, and I have replaced it with Lee's Egg-maker, which I have been carefully experimenting with during this past season of 1907. It has given me 25 per cent. more eggs, during winter months, under the same conditions, with half the expense, and birds are in the pink of condition. It can also be mixed with processed oats for little chicks with grand results. Fresh-cut bone, three times a week, is excellent where you can conveniently get it during hatching season, but is not a necessity. I shall keep Lee's Egg-maker in stock to accommodate a local trade, and those in Pennsylvania can get all of Lee's goods of Mr. Howard L. Davis, Market Street, Philadelphia, Pa., or write Geo. H. Lee Co., Omaha, Nebr., for all their products are strictly high-class, including their lice-killer, where you prefer getting it ready for use rather than mix it yourself. I know you cannot fail if you feed your large breeds as laid down in this chapter. If you do not fully understand everything write me, for my aim is to see every poultry plant in this country succeed, or come and see me and see two thousand birds cared for under this system.

CHAPTER XXVII

Erection of a Yarded Plant

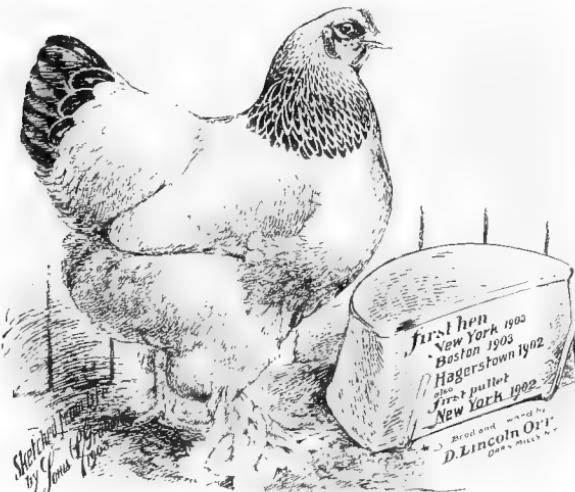
I must say a few words here to those who have but a little land and must yard their stock. First you will want a good laying house, and in order to house a large number of birds at the least possible expense, and to economize in labor, I advise a plain house without an alleyway, one about 80 feet long for the least labor, for in a house without an alleyway you must open all your doors in passing through. I would divide this house in eight pens, 10 by 15 feet; build your house 15 feet wide, 80 feet long, 7 feet high in front and 5 feet in rear; put one fair size window in each department about two feet from the ground; fit your windows loose and slide up to roof and make your holes for letting hens out under the window, fitting wooden slides very loose to slide sideways so you can open and shut them with your foot; put in your wire netting partitions every ten feet, hang your doors two feet from front of house with spring hinges, and have your doors all swing one way, then you can walk right through the house and your doors will always close themselves. In making your partitions you should always run a ten-inch board across at bottom and your door should swing over this. You can also fit a pan on shelf over this board between partitions, and in this way you can water two flocks at once. Your nests can go on one side and your feed hoppers on the other. This house should be filled in with at least six inches of sand and then it will always be dry. Dropping boards can be placed on back side of house; a platform 3 feet wide is about right, with three roosts over it 10 inches apart, all on a level—one foot from platform is about right. You can keep thirty Leghorn layers and two male birds to a pen nicely in such a house, or, if the larger birds, twenty-

four females and two male birds. They should have yards 50 to 150 feet long, the longer the better, and you should at once set these yards with peach or plum trees for shade, and plow them several times during the summer, if possible.

You will want a feed-house handy by for feed. You can use your own judgment in building this; size will depend largely on size of plant. I advise a board floor in it, and you can put bins in it and also leave a part for a picking room.

Now you will want a good brooder-house. The length of this will depend on the size of plant you build or the amount of room you have. It is always best to build too large. I advise a house fully 15 feet wide; would raise it one foot from ground on posts and put in a board floor. Would also board this one foot space with rough boards, and under this floor put a cat, and you will never have a rat in your brooder-house. Can put a window or two so your cat will have some light. I would build this house 7 feet high at north side, and 4½ feet at south side, a single pitch roof. Put along north side a 3-foot alleyway, and cut your house up in 6-foot pens. They will be 6 by 9 about, outside of hover, and each pen will accommodate one hundred chickens. I advise Cyphers' Heating System, but not the open-top system. Leave one foot only between hover and alleyway. You will want a window in each department; hang it at bottom as it will open inside. Also put some ventilators along north side of house, and every ten feet just fit in a board 3 inches wide 3 feet long, put on hinges and let it open inside of house, and you will find these ventilators very fine in hot weather. You will want a slide in every pen for letting chicks outdoors; also a slide between every pen in house, so you can run chicks right along from one end of house to the other. You should use a 10-inch board to divide all your pens. This will also hold your pipes, and

from this board up you can use wire netting a foot of one-inch mesh netting first, and from this to roof you can use two-inch mesh. If you breed Leghorns you will want this house wired to the roof. Of course you must have a gate from alleyway in every pen. A brooder-house like this comes in very handy on a free-range plant for raising chicks during February and March, for you can never get out too many early chicks. You will also want several colony houses in yards to grow up your young stock in. A little house, 3 by 5, will accommodate sixty to seventy-five nicely until they are large enough to roost in trees, if you are fortunate enough to have trees in your yards. If you have not, by all means set out peach trees in them at once for your chicks are never as healthy as when roosting in trees during the hot summer months, and the oftener you can plow your yards and sow with oats the faster your chicks will grow, and if you have kept them growing without a setback your most forward pullets should be laying at four months of age.



LIGHT BRAHMA BANTAM HEN

CHAPTER XXVIII

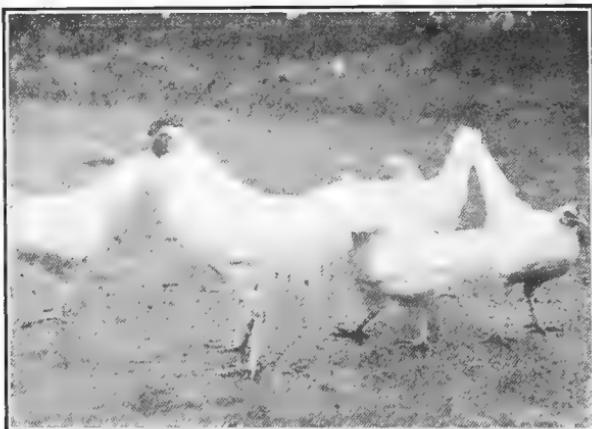
Conclusion

In closing up the poultry department of this book there are some things I want to impress on you, so you will thoroughly understand everything. In order to get the greatest egg-yield always add some cheyenne pepper and salt to your processed oats daily the year round, not less than a teaspoonful of each to a ten-quart pailful of feed, for the greater amount of water a hen drinks the more eggs she will lay. In hot weather keep your oats well wet down with cold water so they will not spoil; wet them thoroughly twice daily if necessary. Never wet them before feeding. Any common feeding oats will grow just as well as high-priced ones, and if you want them at any time for green feed only, let sprouts get $1\frac{1}{2}$ to 2 inches long. But remember they have more feeding value and are the greatest egg-producers when sprouts are 1 to $1\frac{1}{2}$ inches long. Remember for young chicks there is nothing that will grow them so fast as these processed oats and a little cheyenne pepper added; same as for hens is very good for them. Give your young chicks all they will take three times a day sure. Also remember they are a great feed for young ducks and will grow them very rapidly and increase their size. Do not be afraid to give them all they will take two or three times daily. While I find a good grade of wheat screenings far ahead of any other feed for hopper feeding, I also find it very hard to obtain, and at times I am compelled to feed wheat. If you cannot get good screenings by all means use a cheap grade of wheat. Red wheat is better than white wheat.

I also wish to impress on you the importance of a free-range plant, for you cannot fail if you build one

of my free-range plants, and handle it under my system. I know of no business that will make you money faster, all things considered, than the poultry business, if handled properly. And I know of no business where money can be lost faster, all things considered, than in the poultry business. I have taken plants that have had to go out of business and started them in again under my free-range plan with Leghorns, and they have made money very rapidly on same plant, where under the old system they lost everything, so you can see it is in the proper feed and care that makes success certain.

If your little chicks die badly during first two weeks you will find your trouble is with your breeders almost every time. To all who follow my free-range system success is certain. If your chicks are closely confined in small yards and begin to die and dwindle away at three to four weeks of age, you must begin to feed them green cut bone when three weeks old sure. Give a liberal feeding every noon for nothing else will bring them ahead. Also spade yards up and sow with oats as often as you can until you get them on more range. I am always ready to give you advice and help all I can, time permitting.



A FEW THINGS TO REMEMBER

All oats will not grow satisfactory, and if you get some that will not nearly all grow, try another lot of another dealer, for when they grow satisfactory you will have a complete mass of roots and sprouts, which should be 1 to $1\frac{1}{2}$ inches long.

Have several large lots of oats growing for a large plant, and do not get out of them, for this is your main feed for producing eggs and for growing chicks. There is nothing like it. Give them all they will take three times a day, sure, as they live and grow on this as they will on nothing else, and it forms fully 80 per cent. of their rations after they are a week old.

If you fail to make the success you expect under this system, write me, enclosing stamp, and I will straighten you out, for you cannot go wrong if you follow my instructions to the letter.

If your little chicks have board floors you should clean their pens out every four days, sure, and put the leavings in runs of your old hens; they will clean up all seeds and oats not eaten by chicks. Cover your floor lightly with clover; there is nothing as good.

Your Leghorn pullets should lay at five months of age, sure, if you have fed and cared for them as laid down in this book. If they do not, you have failed to carry out some important part, or your stock is not the laying kind.

A poor memory is a poor thing for a poultry man, and will put you out of business. By all means put your

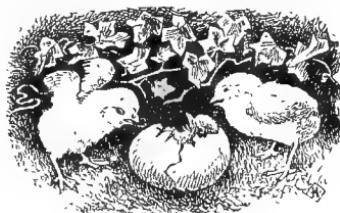
memory in your business. Nothing can be neglected or forgotten, if you wish certain success.

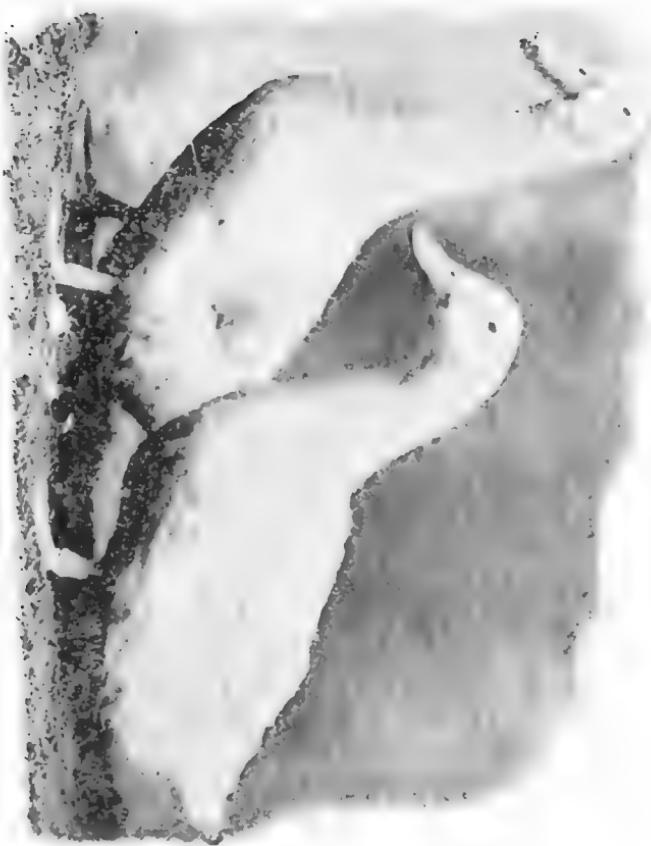
Trap and poison all rats during the fall and early winter, for you cannot raise the two on the same plant. "Common Sense Rat Exterminator" is the best rat poison I have ever used, and if you cannot get it of your dealer, write H. H. Cannon, Irvington-on-Hudson, N. Y., who carries it in stock.

Hopper feed, only wheat feed, such as a good grade of screenings or a cheap grade of wheat. Do not hopper feed corn of any kind and then wonder why you are not getting results.

Remember, you cannot get a hen laying in a day or two. It takes from two to five weeks, depending on the condition of the hen and the time of the year. So, for big results, do not neglect your hen and let her stop laying.

Do not neglect your houses and let them get full of mites and lice. Go over your roosts at least once a month during summer with kerosene and carbolic acid, half and half—or a good lice exterminator. Also clean droppings from board floors once a week sure, at all times of the year, for lice multiply very rapidly in droppings in the summer time on board floors. On the ground it is different.





DUCK CULTURE

Believing this book may fall in the hands of many who raise a few ducks, and possibly in the hands of some who may raise thousands annually, and as I have raised from five to ten thousand yearly for many years very successfully, until I now am able to raise nearly every duck hatched that has strength enough to eat and drink, I will take up the care of the breeding stock, as the foundation of success all lies with the breeders. First you must select your breeders, and in every case they must be young ducks.

Never keep an old ducks over the second year, for they will not lay before February, as a rule, while young ducks start in December, if properly fed and housed. I prefer breeders hatched in April to any other month, as they get fully matured early in the fall and are hatched from our strongest eggs.

All breeders should be hatched from April 15 to May 15, and such ducks should begin to lay in December.

Your breeding ducks can be kept very light during September and October. Do not let them get too poor, for if you do you may lose some.

If you are on a farm you can give them range and but little feed. A mash of wheat bran and gluten meal, equal parts, makes a very cheap feed to summer them on.

About November 1 you must begin to feed them up and house them, if you wish to get early eggs. This is where the profit comes in. Give a mash, morning and night, from November 1 on, as follows: One part bran, one part middlings, one part corn-meal, one part clover, 5 per cent. beef scraps, 2 per cent. grit and oyster shells. Give all they will eat of this, night and morning, and keep water by them if they have not a pond. Also give them water in their houses at night. A butter tub, sawed down, makes a handy thing.

About December 1, increase your beef scrap gradually from 5 per cent. to 10 per cent., and lift your ducks occasionally by the neck and see how thin they are. Do not let them get too fat if they begin to lay in December and in January. If they do not gain much, and are thin in flesh, gradually increase your corn-meal and add some whole corn and whole wheat. The more they gain on eggs the heavier feed they must have to keep them in good flesh, for a good Pekin duck should lay from seventy-five to one hundred eggs without stopping. And give more oyster shells and grit. It requires great judgment in feeding a flock of Pekins for the most eggs and to have them run good and fertile. I have seen flocks of breeders knocked out the whole season by getting them too fat before they got to laying good. Your breeders for best results should be mated up one drake to five ducks, and your eggs should run fully 90 per cent. fertile from March 20 on, and if they do not, as a rule, you will find your breeders are too fat.

If you keep ducks for the greatest possible profit you will find none to equal the Pekins as layers, and for quick growers, which stand close confinement, they head the list of market ducks to-day.

In hatching duck eggs I find a temperature of $102\frac{1}{2}$ plenty high for good results, and you will get much better hatches in warm weather by airing your eggs both morning and night.

When they hatch put them in your brooder and give warm water to drink. Watch them closely for two days and teach them to go where the heat is, and after that you have no further trouble. Give warm water to drink for first two weeks, sure, for cold water will give them cramps, which quickly kills them, and if they do not die it will so stunt them that they never get over it.

I have at last found a perfect feed for young ducks first hatched, and that is Spratt's Patent chick feed. I

pour hot water on it, which increases the bulk about one-half; when cool, feed, and you will find every duck that can be raised, or better every duck that has strength to eat, will live on this feed, and they grow very rapidly on it. In fact, they could be put to market on it, but it would not pay as the feed is to high priced; but it pays well to start them on it, for they eat but little the first two weeks. I would not be without it in raising ducks.

After they are two weeks old you can gradually change them on a mash made as follows: One part wheat bran, one part middlings, two parts corn-meal, 10 per cent. beef scraps, a little grit, and you will find they grow very rapidly on this. Twenty per cent. of green feed can be added with grand results. After the seventh week double up your corn-meal and increase your beef scraps to 15 per cent., and if you have the large kind of Pekins they should be ready for market on this feed at nine weeks of age, and fully 80 per cent. of your flock should average five pounds each, dressed weight, and many will go over this weight.

Spratt's chick feed will cost you \$6 per hundred, and even at this price it is the cheapest thing I know of for starting young ducks, for every one lives on it that is fit to leave the incubator. It is the natural duck feed, although not generally known.

In dressing ducks for market hang them in pairs on a line, and stick in roof of mouth with a sharp knife, and at the same time hit them a solid blow on top of the head, and pull out their main tail feathers and wing feathers, except flight feathers or plainer feathers on last or outside joint of wing. Soon as dead take them down, wash out mouth, and take them by the head, two at a time, and dip them in a kettle of boiling water until feathers come easy. You will quickly learn this with little practice. Have a pail of cold water ready to wet your fingers, and take the feathers from the breast first,

and then turn it over and remove the rest, taking all large feathers off. They are then laid on a shelf for a finisher, which generally gets 3 cents each. They clean them up. Then they go in tubs of cold water and later in a barrel of ice water, from which they are packed in barrels and heavily iced and shipped to market.

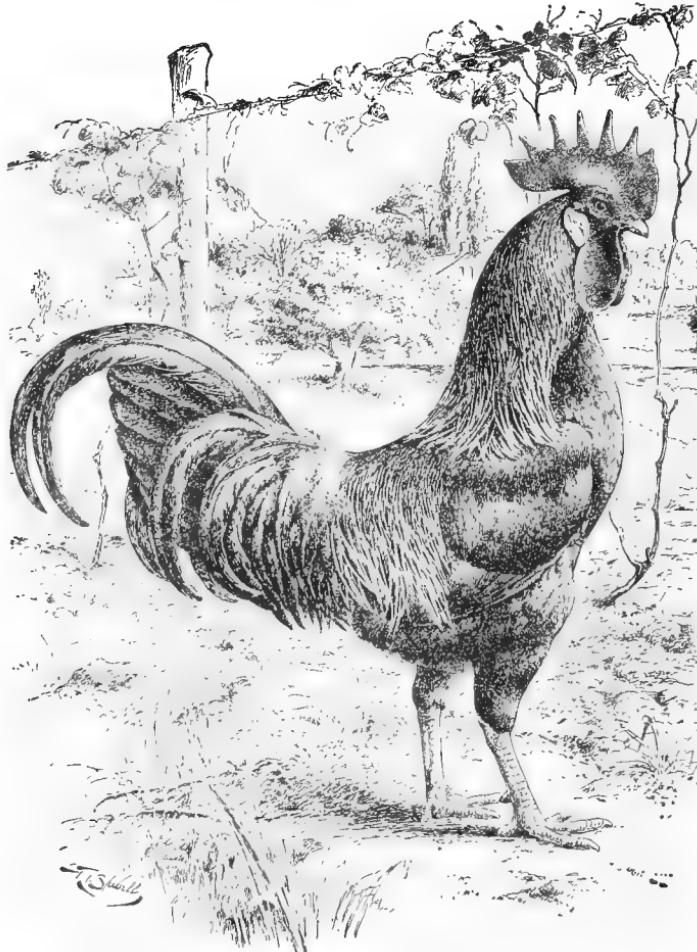
As soon as your breeders are done laying, about July 1, they should be sent to market alive. You will never get more profit out of them as a rule.

You can also make a fine profit selling duck eggs for hatching at \$8 per hundred. A duck plant can make a fine profit if handled right, as sickness and lice are not known in the duck business. Duck eggs do not hatch near as well as hen eggs in incubators, as a rule, but you have no loss after they are hatched.

I have carefully experimented with processed oats for ducks during 1907, and find them a wonderful feed for young ducks. After they are two weeks old give all they will eat twice daily, say 10 a. m., also 3 p. m., and you will find them the greatest growing feed ever fed to a duck, and it also greatly reduces the feed bill, and your young will be ready for market fully one week sooner. They are also a fine feed for old ducks, and will greatly increase the egg yield. Give the old breeders all they will possibly take noons. And if your old ducks do not run on grass, give them all the processed oats they will take twice daily, about 11 a. m. and 3 p. m., and it will not only produce a larger number of eggs, but very fertile eggs as well. Always select your largest, finest ducks for breeders.

In case your young ducks are in very small yards and do not get sufficient exercise, and begin to go back or have bowel trouble on Spratt's Chick feed, why, then, you can mix bran with it, also stale bread, soaked in water, say equal parts of each, and feed every other feeding on this until you change their feed, after two weeks of age, and you should have no further trouble.

You must remember one thing in going in the duck business—it means lots of hard work and is no business for a lazy man. But if you live near a good-sized city and can work up a good, private trade for your young ducks among private families, markets, and hotels, and not have to depend on the commission man, why you will find a fine profit in ducks



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Pullets	I	2	
Cocks	3	5	
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I can also save you money on **Incubators and Brooders**. Get my prices on beef scraps and Chick Feed. Cypress Lumber, Lee's Egg Maker, and various supplies carried in stock.

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is prepared strictly according to modern scientific methods, and is the result of careful and exhaustive experiments.

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