UNIVERSITY OF KENTUCKY

COLLEGE OF AGRICULTURE

Extension Division

THOMAS P. COOPER, Dean and Director

CIRCULAR NO. 178

TURKEY POINTERS

Sanitary precautions and care not to overfeed enabled raising 270 out of 300 poults hatched.

Lexington, Ky.

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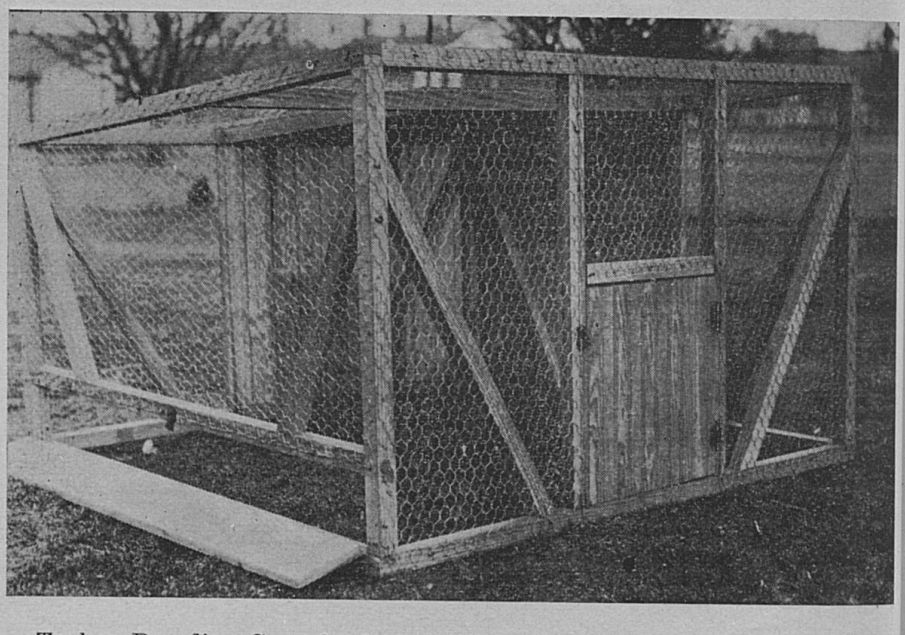


Turkey Brooding Coop for hen and 20 poults. The coop is 5 feet square, and has one corner protected with top and sides.

EXTENSION CIRCULAR NO. 178

Turkey Pointers

By J. HOLMES MARTIN

According to the 1920 census Kentucky ranks fifth among all the states in turkey production. Figures gathered from transportation companies, produce buyers and others, show that approximately 115 cars, or 2,771,000 pounds of turkeys were shipped out of Kentucky during November and December, 1923; also that 25 cars, or 500,000 pounds, were shipped by express or consumed locally and, roughly, 300,000 pounds were held on farms and sold after December 20th. This totals approximately 3,571,000 pounds of turkeys sold from the 1923 crop, which, at an average price of 25 cents per pound, netted the Kentucky farmers in the neighborhood of $892,750. This figure does not include the value of breeding stock and hatching eggs sold.

However, in spite of the fact that the 1923 and probably the 1924 crops exceeded a million dollars in value, the turkey industry is on the decline in Kentucky, as well as in most other sections. The following census figures show that this unmistakably is true in Kentucky:

Year	No. Turkeys in Kentucky
1900	279,949
1910	188,292
1920	168,326

Disease (most frequently blackhead) is given by many as the cause for the decline in turkey raising. Restricted range areas have frequently caused people to discontinue raising

turkeys. If the turkey industry is to continue in Kentucky the haphazard methods of care must be forsaken and partial confinement combined with due sanitary precautions adopted. The mortality of poults can be lessened by the adoption and practice of the following methods:

Ten Essentials for Successful Turkey Raising

1. Only strong, mature breeding stock should be used.
2. Breeding stock should not be over fat (feed a balanced ration).
3. Ample moisture should be supplied if an incubator is used.
4. A brood coop to confine hen and poults should be provided for each brood.
5. Do not let the poults get chilled.
6. Do not overfeed the poults.
7. Do not feed until the poults are 48 hours old.
8. Keep poults free from lice.
9. Do not let turkeys eat green corn.
10. Doctor a sick turkey as soon as it shows signs of sickness.

Questionnaires were sent to a number of turkey raisers in the state during 1923, and answers to 36 of these show what some people are making from turkeys. Those 36 farms kept 229 hens and 42 toms. They raised 1,018 poults, which were valued at $5,256.50, or approximately $146 per flock.

From the answers to questionnaires, as well as from observation, it seems that the Bronze variety is the most popular in Kentucky. However, flocks of Narragansetts, Bourbon Reds and White Hollands are numerous. The following standard weights of the common breeds show their comparative size:

Breed	Adult Tom	Cockerel	Hen	Pullet
Bronze	36 lbs.	25 lbs.	20 lbs.	16 lbs.
Narragansett and Bourbon Red	30 lbs.	20 lbs.	18 lbs.	14 lbs.
White Holland	28 lbs.	20 lbs.	18 lbs.	14 lbs.

It is usually considered that the Bronze turkeys are the most difficult to confine, and that they are exceptionally good rangers. The Bourbon Reds, White Holland and Narragansett

are easy to confine to pens. This statement is generally taken as true, but any breed of turkeys properly managed can be confined to pens, their range limited and good results secured, provided certain essential sanitary precautions are taken.

SELECTION OF BREEDING STOCK

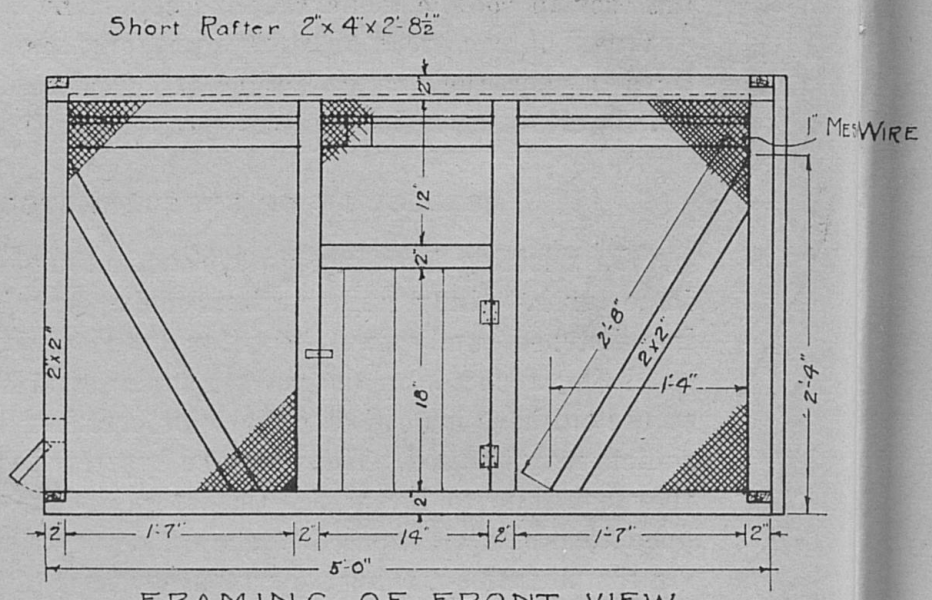
In selecting breeding stock, constitutional vigor is of most importance. Many turkey raisers make the mistake of keeping late hatched, undersized hens for breeders, because they will not bring as much on the market as the good hens. It is better to use old hens instead of pullets for breeders, tho well-matured pullets may be used. Hens may be kept for five or six years, if they continue to lay well. Cockerels, if well-matured, are as good to use as old toms, but should never be mated to pullets. On the 36 farms making reports, an average of 5 to 6 hens were mated to each tom. However, 12 to 15 hens can be mated to one tom and good results secured. Only one mating is necessary to fertilize a clutch of eggs. Twenty-five to thirty pound toms are best, as birds weighing forty or more pounds injure the hens.

MANAGEMENT OF BREEDING STOCK

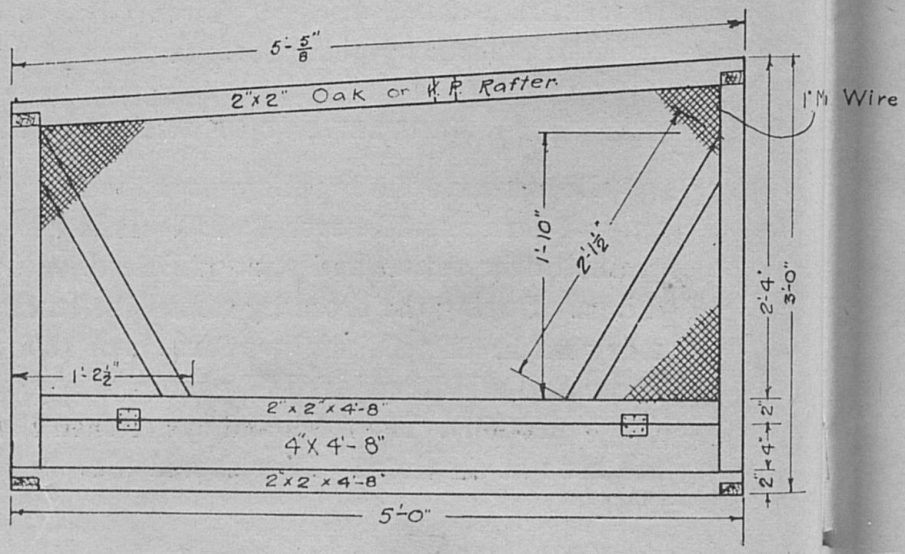
Do not have the breeding stock too fat. A ration consisting only of corn should never be fed. It is advisable to add other grains to the ration and some mill feed, such as bran and middlings. During the breeding season the turkeys should be given a dry mash. A good mixture consists of 100 pounds of mill feed (bran and middlings) and 25 pounds of a good grade of tankage (60% protein). The mash and oyster shell should be kept before the hens at all times. They should also be given a small grain feed.

HATCHING TURKEY EGGS

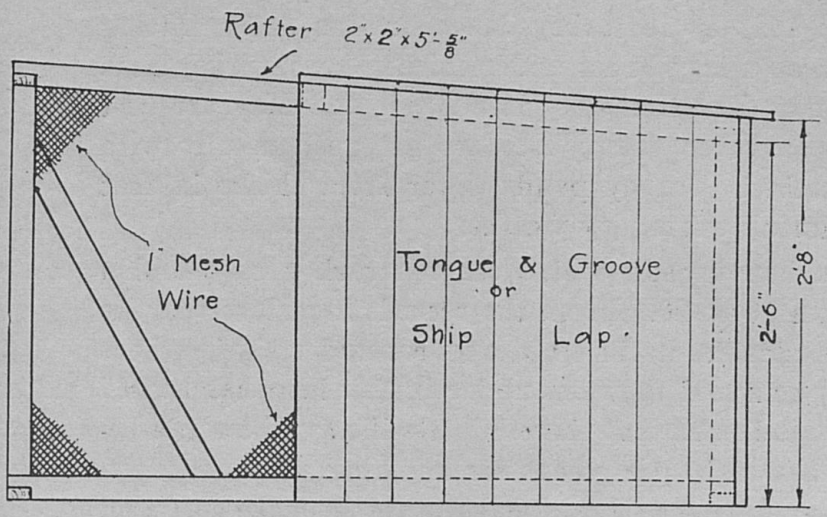
Turkey eggs may be saved as long as 4 weeks, provided they are kept in a cool place (40° to 65° F.) and turned daily. However, it is best not to hold them over two weeks unless unavoidable.



FRAMING OF FRONT VIEW
Scale 1½" = 1'-0"



FRAMING OF RIGHT SIDE
Scale 1½" = 1'-0"



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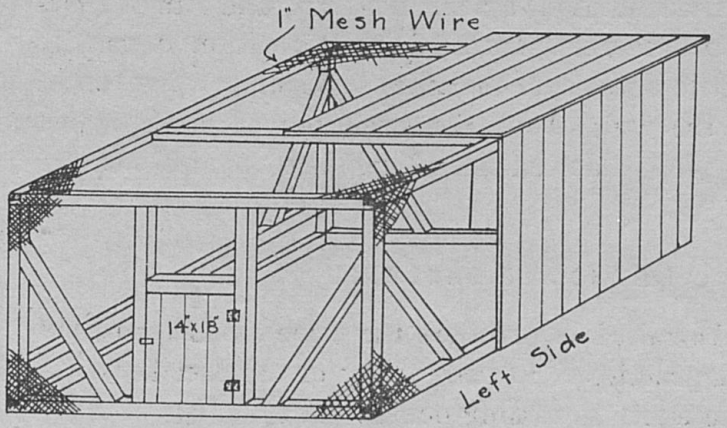

FRONT ISOMETRIC VIEW
Scale ¾" = 1'-0"

No. C-7-75-1

KY. TURKEY BROODING COOP
EXTENSION WORK IN AGRICULTURAL ENGINEERING
COLLEGE OF AGRICULTURE UNIVERSITY OF KY
DRAWN BY W.N.S.
APPROVED BY J.H. Martin, J.B. Kelley 3/18/24

Turkey eggs require 28 days to hatch. A 68 per cent hatch was secured in 1923 by 16 turkey demonstration flocks, setting 2,383 eggs. The eggs may be set under chicken hens, turkey hens or in incubators. For Kentucky late April and May are best for hatching. However, many breeders get good results with early June hatches. Turkey poults differ from chicks in that they do well during warm, dry weather.

A chicken hen usually will cover ten turkey eggs and a turkey hen from 18 to 20. From the records kept last year by 16 of the demonstrators in the state, eggs set under chicken hens hatched 69 per cent and those set under turkey hens hatched 67 per cent. This indicates that there is little if any difference between the chicken and turkey hens for hatching. Do not interfere with the hen during natural incubation, only make sure that she gets sufficient feed and water.

Any good make of incubator will hatch turkey eggs well if carefully operated. Leave the thermometer on the tray in the same position as used in hatching chicken eggs, and run the machine at 100 to 101 degrees. In artificial incubation it usually helps to add a little additional moisture. Dashing warm water (100° F.) over the eggs about the twenty-seventh day (just when ready to pip) aids the hatching. Use about a tea cup of water to 100 eggs.

METHOD OF BROODING

Poults may be raised in brooders the same as chickens, but the most general practice is to use turkey or chicken hens. A *brood coop* is a necessity in raising poults. The College of Agriculture has prepared plans of the turkey brooding coop illustrated on page 2. Working plans are given on pages 6-7. A number of turkey breeders in the state have used these brood coops during the past few seasons with outstanding success. The coops should be placed in a good pasture and kept several yards apart with only the ground as a floor. A turkey hen with 15 to 20 poults should be placed in each coop. It is a good plan to confine them to the coop until the poults are a week old, moving the coop to fresh ground at least every other day. If the weather

is suitable during the first week the long, narrow door may be opened to let the poults out while the hen is still confined to the coop. After the first week the hen may be let out with the poults in the morning, if the weather is suitable. The hen with her brood should always be put back into the brood coop at night and the doors shut to keep out prowling animals. If the brood is fed a light feed morning and evening in the coop they will return without any difficulty. The coop should be used as a shelter until the poults are large enough to roost in the trees or on high poles. A wagon wheel placed on the top of a pole makes satisfactory roosts, since each spoke serves as a roost. Since no houses and costly equipment are needed for turkeys every person raising them should invest in a brooding coop.

One of the most successful turkey raisers in the state started using this style of brood coop two years ago and after using it for two seasons has stated that it is far superior to any brood coop he has ever tried. He calls attention to the fact that in using this type of coop the turkeys are kept "close to nature," since they roost on the ground while they are kept in the coop In addition they are afforded protection from inclement weather and prowling animals.

FEEDING POULTS

Probably there are as many different methods of feeding poults as there are turkey raisers. Most of these methods have proved at least fairly satisfactory where certain precautions are taken. Some of the most common causes of losses in young poults are chilling, feeding sooner than 48 hours, overfeeding, and using wet, sloppy or spoiled feed.

The ration fed by one of the most successful turkey raisers in the middle west should serve as a guide.

For the first 48 hours nothing is fed, the poults remaining quietly in the nest for the first 24 hours. Having first cleaned out the shells remaining in the nest the hen and her brood are transferred to the pen that has been made ready for them. If the coop in which the hen is to be confined has been used before, it should be cleaned and disinfected. On the morning of the

second day that the poults are in their pen, they are fed a piece of stale light bread two inches square and one inch thick for every twenty poults. The bread is soaked in sour milk, altho sweet milk would be just as good, but one can always have sour milk. Squeeze as much of the milk out as possible, leaving the bread so it will crumble well. Add to the bread a third of a teaspoonful of clean sand, and a pinch of some good poultry regulator.

This feed is given the poults four or five times a day for the first ten days. Spread the feed on a clean board about three feet long and six inches wide, so that all poults can get to the feed and not overcrowd. At the first meal it is sometimes necessary to teach the poults to eat. Do this by allowing some of the bread to stick to the fingers and holding it so that the poult can see it. It will not take them long to see what is wanted. After the first ten days feed only two times a day, giving them as much in the two feeds as formerly in four or five.

After the poults are four weeks old continue feeding two times a day, chick grain at night and soaked bread in the morning, increase the amount of bread as the poults grow. Here is where one must be careful and not overfeed. The poults should be kept hungry. If the clover or grass sod is not very good, feed a small amount of green food. If the sod is fresh and good, they will get all the green food that is necessary. One important thing is not to feed the bread on the ground or allow any of it to lie there and become moldy. The feeding trough or board must be kept clean. Wash it often and set it in the sun to dry. A small pan of chick size charcoal is very good; keep it in the pen all the time. Let the poults have water or milk, milk preferred (either sour or sweet) for the first six weeks. It is a good plan to add one tablespoonful of Epsom salts to each quart of drinking water frequently.

It is generally known to turkey raisers that new soft corn will kill young turkeys. Early in the fall it is best to keep the turkeys out of the cornfield, if possible, but if they get green corn and have indigestion, usually a tablespoonful of castor oil will save them. However, they must be treated as soon as they

show signs of sickness. New corn should never be fed turkeys until it has dried out thoroly. Consequently, they should be fed and fattened in the fall on old corn. If it is impossible to fence the turkeys away from the green corn, they should be fed (the first thing in the morning) a mixture of whole oats and old corn liberally, so that their appetite for grain will be well satisfied before they roam to the corn field.

LICE AND MITES

Lice are the cause of the loss of many poults each year. When a hen is set she should be thoroly dusted with sodium fluoride and this repeated at least two days before the hatch is due. If lice do get on the poults it is best to put a little melted lard on the head of each one when they go to roost at night. The hen should be dusted again with sodium fluoride before she is let out the next morning. Do not dust the hen at night as some of the fluoride might get into the eyes of the young poults.

The brood coops should be kept clean and free from mites. This can be done by spraying the coops thoroly with a 5 per cent solution of some good stock dip before the hen and poults are put in. Thirteen tablespoonfuls of the dip to one gallon of water makes a solution of this strength.

REMEDIES

Bichloride of mercury (corrosive sublimate) is a good remedy for intestinal troubles. It should be used at the rate of 1 gram (15 grains) to 1 gallon of water. The water should be in a crock, granite or wooden vessel, as the mercury will eat tin or iron containers. This solution is poisonous to stock and human beings. Extension Circular 165 "Blackhead" contains formulas for various combinations with bichloride of mercury.

Calomel (which is the monochloride of mercury) may be used in place of the bichloride as an intestinal antiseptic and preventive of indigestion. A one-tenth (1/10) grain tablet should be given each young poult twice a week from the third week to the ninth when it should be increased to one-half

(½) grain twice a week till the poults have "shot the red" at three months. These tablets should be dropped into the young poults mouth.

Epsom salts (1 tablespoonful per quart of water) may be used as a mild laxative for the young poults. For mature birds it may be added to a dry mixture of bran and shorts at the rate of 1 pound to 50 turkeys.

Castor oil is the best purgative for turkeys. The proper dose is 1 to 2 tablespoonfuls for a mature bird; a teaspoonful for poults the size of a Leghorn hen; and two to five drops for the baby turkeys. Place the bottle (cork removed) in real warm water to make the oil flow freely. A paper funnel may be placed in the turkey's mouth and the oil poured directly from the bottle.

Axtell's mixture has proved effective in preventing intestinal worms or curing mild cases. The ingredients are:

Sulfuric acid	2 ounces
Copperas (ferrous sulfate)	8 ounces
Sodium sulfate	8 ounces
Water (rain water preferred)	2 gallons

This mixture should be kept in a labeled bottle or jug. Add one teaspoon of the mixture to each quart of drinking water. If the turkeys drink at a stream or pond, soak a feed of oats in water to which the mixture has been added one teaspoon to each quart.

Crop bound may be helped by washing out with hot water bottle syringe. It will require the insertion of about a foot of rubber tubing down the gullet to reach the crop. For a large turkey it may be necessary to inject as much as two quarts of warm water. The crop should then be gently massaged with the bird's head down. Then immediately administer a calomel pill (¾ grain) and follow this with castor oil the next day.