

pounds of sour skim milk. A small quantity of salt is added to the mash.

When sufficient skim milk or buttermilk cannot be obtained for mixing the mash, use water, and a quantity of animal food added to the fattening ration, 1 pint of animal food to 16 of the meal. Milk, however, is most valuable, and should be used, if possible.

FATTENING.

The chickens remain in the fattening crates from two to five weeks. Some chicks will fatten more readily than others. These are picked out a week before finished. During the last week, a little beef tallow may be fed, shaved into the feeding trough along with the mash, about one pound of tallow per day to 50 or 60 chickens. Before the chickens are placed in the crates, they are well dusted under the wings and tail with sulphur to kill the lice. They are again sulphured three days before they are killed.

The chickens are fed lightly the first week they are in the crates. A small quantity of the fattening food is spread along the troughs, and, as this is eaten, more food is added, but not as much as the chickens will consume. The food is given three times a day, and half an hour after feeding the troughs are cleaned and turned over. The chickens receive fresh water once a day, and grit two or three times during the week. After the first week, they are given twice a day as much food as they will eat. Water and grit are also supplied, as in the first week.

PREPARING CHICKENS FOR MARKET.

Starving.—The chickens are not fed for twenty-four hours before killing. This prevents food remaining in the crop and intestines, to decompose and spoil the flavor of the birds. Several hours before killing the chickens are allowed as much water as they wish to drink.

Killing.—(a) For chickens going into immediate consumption on the local market, it may be found most convenient to kill by dislocating the neck. In the left hand, the chicken's legs and wings are held in one firm grasp. The first finger of the right hand is placed on the right side of the neck, and the remaining fingers on the left side. The head is grasped in the hollow of the hand, with the fork of the fingers behind the head where it joins the neck. The back of the chicken being upwards, the legs are held against the left hip, and the head near the right thigh or knee. The head is bent backward as far as possible, and at the same time the neck is stretched. When the neck is dislocated, the head is immediately pulled about 1½ inches from the neck. The wings are held firmly after killing, and the chicken's head allowed to hang down, so that the blood can collect in the neck; the head is attached to the body simply by the skin of the neck.

(b) Chicks that are to be exported or put into cold storage are killed by sticking in the mouth. The large arteries at the side of the neck are cut just below the ears. When bleeding freely, the blade is driven at an angle with the bill into the back part of the roof of the mouth, through the bony structure which loosens the feathers, making them much easier to pluck. The bird is allowed to hang by its feet until plucked.

PLUCKING.

(a) Plucking the chick that is killed by dislocating the neck.—When the neck is dislocated, dry plucking is commenced immediately. While still holding the chicken in the left hand, after dislocating the neck, the tail feathers and quill feathers of the wing are extracted. The chicken's head is allowed to hang down while plucking the feathers on the back and wings; the breast and lower part of the neck is then plucked, and then the back of the body to the tail; turning the bird over again, the back and wings are finished. The feathers on the neck are left for three inches from the head. The rest of the chicken is then clean-plucked. All pin-feathers are removed, and the chicken made as attractive as possible. Care is observed not to tear the skin.

(b) Plucking a chicken that is bled.—As the bird is hanging on a level with the operator's chest, the wings are grasped between the thumb and first two fingers of the left hand, the neck is held between the third and little finger. This gives the operator control of the bird. The large wing feathers are removed with the right hand, and also the stiff feathers at the shoulder-joints. The tail feathers are removed with one quick, twisting motion, the right hand is passed rapidly down the back, from rump to neck, removing the feathers with thumb and forefinger. The bird is then shifted to the right hand, and the left hand is used in picking the soft feathers from the breast. If the sticking has been properly done, the feathers will come out easily. It will take some practice for beginners to become expert. The foregoing method may never be followed, no two pickers follow the same rule, but it may help some to adopt some method that gets the feathers off quickly. Gradually the sticking is coming more and more into practice; when the neck is dislocated improperly, the blood discolors the neck and shoulders. This is especially noticed if the bird has been in cold storage. Some

expert pickers break the bird's back over the edge of a barrel, but this should not be encouraged any more than the breaking of the breast bone to make it look plump.

COOLING, SHAPING AND PACKING.

All birds must be thoroughly cooled; many are better to be shaped, as well. It is claimed that birds should be cooled under pressure, as the injurious gases are thereby expelled from the carcasses. Some hang the birds up to cool; this process also shapes them, but does not give them a shape desirable for packing. One of the best methods is:

As soon as the chicken is plucked, its legs are placed alongside its breast; then, with its breast downward, the chicken is forced down into the angle of the shaper. The chicken is then covered with paper, and a brick placed on top to shape it; one is also placed against it to hold it in position. This same process is continued as the other chickens are plucked, each chicken being placed in the shaper close to the last, and the lower brick moved along to hold the row in position. The chickens are allowed to remain in the shaper for at least six hours. A shaper is simply a wooden trough, placed horizontally, having the lower side of the trough inclined slightly to the back.

PACKING.

After being thoroughly cooled, the chickens are packed into shipping cases. The chickens are cold, and dry on the skin, before packing. Unless the chickens are artificially cooled, they are not packed into the cases until 20 hours after killing.

Any kind of shipping case may be used, but the case that holds one layer of 12 chickens is most desirable for the select trade. The cases are made of basswood or spruce. The different sizes are made as follows:

No.	Inside Measurement in Inches.		Thickness of Wood, Sides. Ends.	
0	20 x 15½ x 4		7/16	9/16
1	21½ x 16 x 4½		7/16	9/16
2	23½ x 16½ x 4½		7/16	9/16
3	24½ x 17½ x 4½		7/16	9/16
4	26½ x 18 x 5½		7/16	9/16

Case No. 0 is for chickens weighing (plucked) from 2½ to 3 pounds each; No. 1 for chickens 3 to 3½ pounds each; No. 2 for chickens 3½ to 4 pounds each; No. 3 for chickens 4 to 4½ pounds each; No. 4 for chickens 4½ to 5½ pounds each.

On one end of the shipping case the name and address of the shipper is stencilled, the brand (if any), the number of chickens, and the space for their net weight.

Directions for Packing.—The chickens are graded in size, and each chicken packed into the proper size shipping case. The case is lined with parchment paper before the chickens are placed in it. The box of chickens is weighed, and the net weight stencilled or plainly marked. Fractions of a pound are not given. The chickens are packed with their breasts or backs up, as preferred.

Cases may also be made of hard wood and a hinged cover; these can be returned when empty. They are suitable for a local-market trade.

EQUIVALENT PRICES OF CHICKENS ALIVE AND DRESSED.

To ascertain the relative prices that chickens should bring alive, dressed and drawn, twelve chickens were (1) weighed alive two hours after the last feed, (2) thirty-six hours after the feed; (3) when killed (by dislocation), dry plucked, and cooled twenty hours; and (4) when drawn ready for the oven. Each bird was weighed separately; the variations were about the same in each case; the totals only are given here. The weights of the twelve birds were: Alive, 67 pounds; starved thirty-six hours, 58 pounds; killed, plucked, and cooled twenty hours, 54 pounds; drawn and prepared for oven, 36 hours.

As a result of the 36 hours' starving, there was an average loss of 12 ounces in the live weight of each chicken. There was a loss in weight of five ounces due to the killing, plucking and cooling of the chicken. This small loss represents the weight of the feathers. There is no appreciable loss in weight owing to the twenty hours' cooling.

The total loss in weight of the chickens when they were prepared for market by starving 36 hours, by having their necks broken, dry-plucked, and not bled or drawn, averaged one pound, or 20 per cent. from the live weight. A chicken that is not drawn until required for the oven is more juicy in flesh than one that has been drawn as soon as killed, and exposed to the atmosphere. It is also more sanitary.

In order to complete this experiment, and to ascertain the loss in weight when chickens are prepared for the oven, the twelve chickens were drawn, and their heads, legs and outer joints of the wings were removed. There was an average loss in weight of 1½ pounds in each chicken; 54 per cent. of the live weight of the chicken was the drawn weight.

According to this experiment, a live bird, unstarved, that is worth 10 cents per pound, should bring starved 36 hours, 11½ cents; killed by dislocation and plucked, 12½ cents; drawn, 19 cents.

Table showing equal prices in cents per pound for selling dressed chickens by live weight, unstarved, starved 36 hours, plucked weight, and drawn weight:

	c.	c.	c.	c.
Live weight.....	9	10	11	12
Starved.....	10½	11½	12½	13½
Plucked.....	11½	12	13½	15
Drawn.....	16½	19	20	22

The best markets are now demanding crate-fed chickens. Some will take no others.

See that a liberal supply of scratching litter is provided for the chickens this winter. To have poultry digging around daily in their own damp droppings endangers their health, is disgusting, and does not make for best results in egg production.



Two Beautiful Flocks.