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EC1448 Dressing, Grading and Marketing Turkeys

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Dressing, Grading and Marketing Turkeys



The University of Nebraska Agricultural College Extension Service
and United States Department of Agriculture Cooperating
W. H. Brokaw, Director, Lincoln

PREFACE

In the production and shipping of over sixty cars of dressed turkeys annually, Nebraska is known as one of the important turkey states. Factors responsible for turkeys doing so well in Nebraska and the progress they have made include the favorable and healthful climate, sandy and well-drained soil, abundant sunshine, and plenty of home grown feed, all of which means high quality turkeys at low production costs.

It is generally admitted that the problems of marketing of any crop equal those of production and that efficient marketing determines the profit. A discussion of factors having a part in efficient marketing of turkeys should, therefore, aid in the profitable expansion of this phase of the poultry business.

Dressing, Grading and Marketing Turkeys

BY J. R. REDDITT *

Marketing time for turkey growers is one of the very important steps in the turkey program. As the final step it is well to know that it has been as carefully provided for as have the problems of production. A mis-step at this time might make for naught all the care and attention that has gone into the growing of the turkeys.

GETTING TURKEYS READY FOR MARKET

Turkey prices are determined by the condition as well as the supply and demand of the turkeys. Since the condition is determined by the feed and management, it seems appropriate to first call attention to some practices noted among successful turkey growers.

A flock of 100 turkeys on which accurate notes were kept offers an excellent demonstration of what can be accomplished. These turkeys were hatched the second week in June which was late for best results. With proper feeding and management, however, the young toms weighed 16 to 18 pounds at Thanksgiving or when five and one-half months of age.

An outstanding feature of these birds at this age was their freedom from pin feathers. This was attributed to the extra high animal protein content of the feed for a couple of months before marketing time. About ten per cent more meat and bone meal was given the turkeys than is usually recommended for chickens. In addition to a rather rich protein mash which was before the turkeys at all times, they were given liberal quantities of milk.

Where milk is not available, 25 per cent meat and bone meal mash is suggested. As a means of stimulating the consumption of greater quantities of mash, the turkeys may be given a daily feed of wet mash. The mash may be wet with water and fed in amounts that will be eaten in fifteen minutes. A crumbly mash is preferred to a sloppy mixture. It is fed in clean troughs which are removed as soon as the birds have eaten.

The bone of the meat and bone meal supplied ample quantities of bone building material. This was considered one of the reasons for there being no crooked breast bones. Birds with crooked breasts grade as seconds, often as low as third grade and sell for three to twelve cents per pound less than No. 1 birds.

* Acknowledgments are due E. C. Nelson, county extension agent at Bridgeport, C. Mozer and W. W. Dayton, Nebraska produce dealers, and the staff of the poultry husbandry department, University of Nebraska, for assistance with the writing of this circular. Illustrations were made possible thru the courtesy of Mr. Mozer and the U. S. Department of Agriculture.

Unless some form of bulky feed is given growing turkeys, they are likely to become feather eaters. This habit once started is difficult to control. Turkeys that have become the victims of the feather eating habit are quite unsightly and always go into the lower grades. Where liberal quantities of chopped alfalfa were fed little of this trouble was reported. When too much alfalfa is fed, mash consumption may be reduced and rapid growth retarded.

Turkeys without some fat on them are unattractive and therefore, must go into the lower priced grades. This is a major cause of low grade birds. A practical way of lessening this danger is by hopper feeding grain such as cracked corn. Good turkey raisers do this from summer until market time.

Turkeys having colds and roup generally have poor appetites and so do not fatten well. During stormy weather, colds are likely to develop unless some shelter and protection is provided. This is especially true of the more immature birds. Because of the rapid spread of roup, growing out of colds, it is always advisable to remove from the flock any showing symptoms of roup or any other diseases.

PREPARATION AND INSPECTION OF BIRDS FOR SLAUGHTER

Turkeys intended for slaughter should be starved 12 to 18 hours before being killed but given plenty of clean water. This is necessary in order to empty the crop and digestive system of as much feed as possible. Examine the turkeys carefully and do not kill any with feed in their crops. The presence of any feed impairs the keeping quality of the carcass, causes discoloration, and lowers the grade of it.

If a careful inspection can be given all turkeys before they are killed, many of the lower grades and rejects can be kept out and saved for a later market. Pick turkeys that are plump and fat and well feathered, but without pinfeathers. It is impossible to make an attractive carcass out of a turkey that is full of pinfeathers. Of course, all bruised, crippled, poorly fleshed, sickly and roup birds are to be rejected. For this reason it is always advisable to put these aside for later marketing.

Since weight is an important factor in determining grades, it is often a good plan to have scales handy for weighing birds of doubtful weight. It is also well to keep in mind that the weight lost in dressing and shrinkage will be 12-15 per cent. This means that if the minimum weight for young toms is to be 13 pounds, they must weight about 15 pounds alive.

EQUIPMENT FOR KILLING

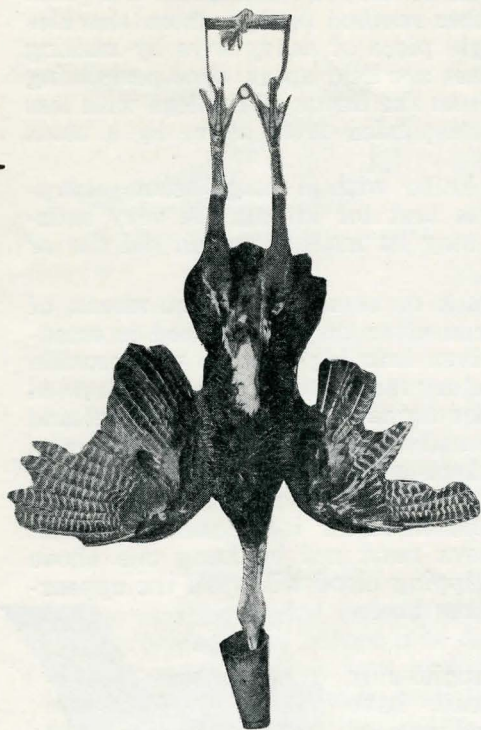


FIG. 1.—Shackles and weighted blood cups such as illustrated make up equipment which insures efficiency in dressing turkeys. Without a weight on the head the bird may swallow a quantity of blood or smear blood over pickers and premises.

Unless equipment has been provided for reducing to a minimum the blemishes due to injury and rough handling, it would be advisable to give this first thought. Much of the profit of the turkey venture is often lost because of the number of birds being graded as seconds as a result of bruises, torn skin and broken legs or wings. Turkeys are rather nervous and easily excited, and when handled in large numbers, unless necessary precautions have been taken, will fly against anything and trample and bruise themselves quite severely. It doesn't take much to stampede a flock of turkeys; a flash of light from a car at night, or the appearance of a dog in case they are not accustomed to dogs, will set them off

Probably the best plan for handling turkeys at dressing time is to house them in a half darkened room or roosting shed where they can be easily caught and without disturbance to the whole flock. Woven wire enclosed pens with woven wire over the tops provide simple, temporary means of corralling the turkeys for the short time they are held before slaughtering. Where large numbers of birds are to be confined, it would be more satisfactory to have such a corral made up of a number of small pens instead of one large one. Catching hooks are generally used to catch the birds in these enclosures.

Killing requires a means of suspending the birds by their feet. There are two common practices for doing this. A stout, flexible cord attached and suspended from a beam above and dropped to a convenient height for the picker, may be

used. A large wooden button or a six inch piece of common lath attached to the free end of the cord facilitates the quick tying of the feet. The other method is to fashion shackles for each foot out of a single piece of heavy wire by making a double loop so that the feet are held apart, thus permitting the feathers to be picked from the inside of the legs with less effort. The shackles are suspended from above by a stout cord.



FIG. 2.—An excellent knife for bleeding, braining, and dressing turkeys can be made from any ordinary flat file.

A sticking knife with a long, stout, sharp-pointed blade is best for killing. A very satisfactory knife may be made from an old file or table knife.

A cooling rack or some convenient means of cooling the birds after they are picked is essential. Nails driven into high beams will provide quite a satisfactory means for cooling the dressed turkeys. Binder twine looped about the feet and hooked on the nails make this a simple process. In cooling turkeys never permit them to touch each other or hang against the wall. Uniform and free circulation of air is necessary for best results. Turkeys must not be hung one above the other or dripping blood will spoil the appearance of the lower birds.

KILLING

Suspend the birds for slaughter by both feet, weight the head, have some one hold the wings and proceed as follows:

1. Grasp the turkey by the bony part of the skull with the back of the head in the hollow of the left hand. Do not close the fingers around the throat, this will cut off the flow of blood.

2. Insert the long, narrow-bladed knife well into the mouth with the point toward the side of the head held by the fingers. With enough pressure to make a clean cut draw the knife diagonally toward the other side of the head. If the cut has been properly made there will be a free flow of blood immediately. Let this run a second before braining.

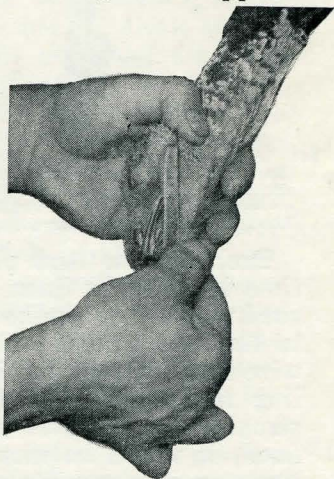


FIG. 3.—Sticking or bleeding is done before the bird is killed. The sharp point of a slender knife is pushed well back into the roof of the bird's mouth and to one side where a diagonal cut is made toward the other side. A good free flow of blood indicates a good stick.

3. Brain for dry picking by thrusting the point of the knife through the groove which runs along the center of the roof of the mouth until it pierces the brain in the back or rear part of the skull. A sudden convulsion of the turkey's body and the spread of the tail feathers indicates a good stick, which causes a loosening of the feathers and makes picking easy.

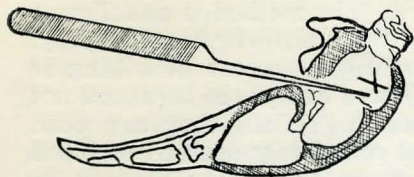


FIG. 4.—The back part of the brain marked "X" indicates the point to reach when braining.

such as a one pound can of sand or a half a brick on the head to catch the blood and prevent its being smeared all over the picker.

Probably the most important part of the whole procedure is the bleeding. The birds must be bled thoroughly. If they are not the carcass will have a reddened appearance, it will not keep well and of course cannot go into the top grades. Do not allow the blood to clot in the mouth and thus stop the flow.

DRY PICKING

Dry picking begins as soon as the bird is brained and before it is dead. Picking must be done in a hurry or the feathers will set and be quite hard to pick. With a twisting motion all the long tail feathers are removed first, and with one pull. The wings are next, then the shanks and body. If too large a handful of feathers are pulled at once the skin is liable to be torn, and since this is serious enough to make a No. 3 grade out of a No. 1, it is evident that care must be exercised throughout the whole process of picking. Rubbing the birds, especially the shanks, causes them to turn red and generally have an unsightly appearance. Remove all feathers by picking. Work fast.

In case of difficulty in removing stubs of broken feathers use a pair of pliers.

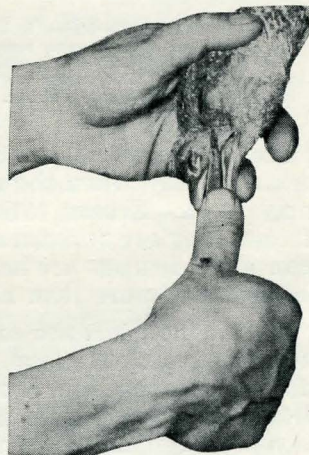


FIG. 5.—Braining is done by pushing and twisting the point of a slender knife blade into the back of the brain. The knife is inserted just underneath the eye. The length of the blade shown here represents the depth of the stick, or about one and three-fourths inches for a turkey hen. A convulsing jerk and squawk indicates a good job.

SEMI-SCALD PICKING

Semi-scald or dry scald is a more recent method of scalding birds for picking. It originated with chickens but apparently is equally satisfactory for turkeys. The method is as follows:



FIG. 6.—As soon as the turkey is killed the main tail feathers are removed with a quick twisting pull instead of a straight jerk. The wings are held by the web to prevent bruising.

Kill the birds by bleeding only. The same process of killing is followed except the birds are not brained. When they are dead and completely drained of blood immerse for thirty seconds in water heated to a temperature of 126 to 128 degrees Fahrenheit.

Picking is in the order already described. The important feature of this method is the temperature of the water. This must be watched very closely or a scalded skin-cooked carcass will result.

COOLING

As soon as the birds are picked hang them up to cool and be sure that they are well cooled before picking. Let them hang over night in a well ventilated place, but do not allow them to freeze. Frozen turkeys deteriorate rapidly when thawed out, and unless used immediately may spoil. Frozen turkeys cannot be graded because when frozen they are unnatural in appearance and handling. Broken bones and bruises are hard to see in frozen carcasses. Do not handle any more than necessary.

When the birds are cooled and before they are packed clean the heads and feet and wrap the heads. Wrap the heads in strong, clean, wrapping paper. Avoid rough handling which would in any way tear the skin or bruise the body or otherwise hurt the appearance or condition of the carcass. As soon as properly cooled and ready for packing they should be graded and packed, because in a dry atmosphere, evaporation and loss in weight takes place very rapidly.

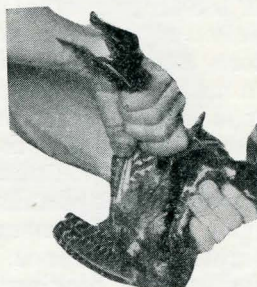


FIG. 7.—The main wing feathers are taken out immediately following the removal of the tail feathers, and with the same twisting pull.

HEAD WRAPS AND WRAPPING

The heads of all classes of standard packed birds should be wrapped. An attractive and practical head wrap is one made from paper cut as follows: Cut strips of heavy wrapping paper 24 to 30 inches long and eight or nine inches wide. Fold the strips diagonally so that they will be in the form of a try-square, each arm of the square of equal length. Cut along the diagonal fold and you will have two sheets of equal size and shape, with one side of them considerably longer than the other.

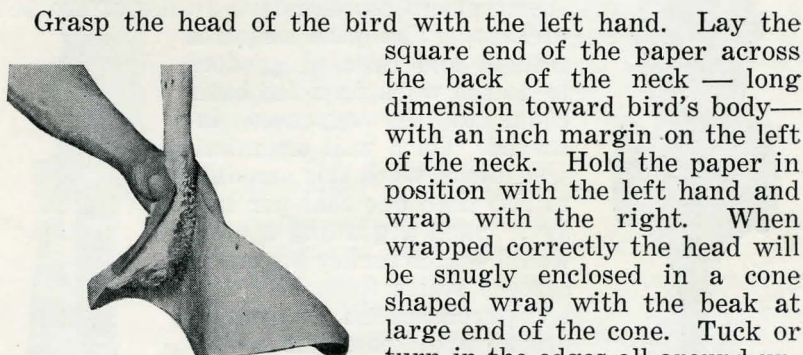


FIG. 8.—Before wrapping, the heads are wiped free of blood and dirt. The wrapping begins with the square end of the paper and with the long edge of the paper to the bird's body. When properly wrapped and the edges tucked in around the back a very neat appearance is given.

Grasp the head of the bird with the left hand. Lay the square end of the paper across the back of the neck — long dimension toward bird's body—with an inch margin on the left of the neck. Hold the paper in position with the left hand and wrap with the right. When wrapped correctly the head will be snugly enclosed in a cone shaped wrap with the beak at large end of the cone. Tuck or turn in the edges all around until all the slack is taken up to the beak of the bird. This tucking in of the edges will bind the paper on so that it will be difficult to pull the wrap off without tearing it. With some practice

wrapping heads can be very efficiently and quickly done.

GRADING

Uniform grades and grading have expanded and advanced every enterprise to which they have been applied. Turkeys are no exception although the application of grades to this particular product may be newer than in the case of many other products. Turkey grading in Nebraska has been done by the buyers with each buyer having his own system of grading. In this way there could be as many standards of grading as there are buyers.

The benefits of grading must reach the producer if improvements are to be had in the products. Constant improvement is necessary in the face of competition, the trend of the times, and to expand the market for the product whether it be turkeys or tractors.

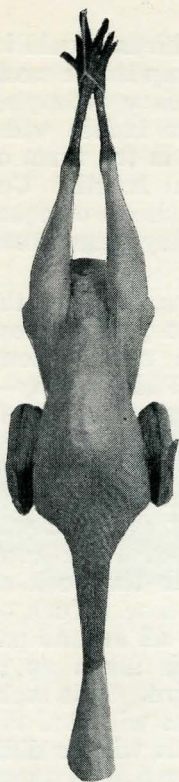


FIG. 9. — U. S. Prime Turkey. This class of turkeys must be properly finished and properly dressed. A covering of fat indicates the proper finish. Note the neat appearance of the wrapped head. (U. S. D. A.)

There is much greater likelihood of the merits of grading reaching the turkey growers of the country if there is one uniform standard of grades. Different systems and standards mean more confusion and slower progress. Before improvement practices can be adopted they must be clearly understood.

Market specialists of the United States Department of Agriculture have prepared specifications for standard grades of dressed turkeys. The plan requires trained and licensed graders to do the work on a fee basis equal to the expenses incurred. On a well organized schedule of work this amounts to less than one cent per turkey. Such a grading system would enable turkey buyers in eastern states to make quantity purchases in production areas with complete confidence as to quality.

A brief description of the proposed U. S. standards and grades of young dressed turkeys is as follows:

U. S. Prime or A 1 Grade

Young, fine grained, soft-meated birds, with broad, full fleshed breasts, and with backs, hips, and pin bones fully covered with fat. Must be well bled, well dressed and practically free of pinfeathers with no noticeable feed in crops. No flesh bruises allowed, and only very slight skin abrasions, bruises or discolorations permitted, none of which shall be on the breasts. Slightly dented breast bones (not to exceed $\frac{1}{2}$ inch) permitted but no crooked breasts or other deformities allowed. Broken wings above the wing tips or broken legs not permitted. Bird with crops properly removed may be permitted in this grade.



FIG. 10. — U. S. Choice Turkey. The difference between prime and choice is a matter of finish and dressing. Either one or both of these factors may lower the grade. The better they look. (U. S. D. A.)

U. S. Choice or No. 1 Grade

Young soft-meated birds with well fleshed breasts, and with backs, hips, and pin bones well covered with fat. Must be well bled, well dressed, and may show some few scattered pinfeathers other than on the breasts, with crops practically empty. Only very slight flesh or skin bruises, abrasions or discolorations permitted, none of which shall be on the breasts. Slightly dented breast bones (not to exceed $\frac{1}{2}$ inch) permitted but no crooked breasts or other deformities allowed. Broken wings above the wing tips or broken legs not permitted. Birds with crops properly removed may be permitted in this grade.

U. S. Medium or No. 2 Grade

Young, soft-meated birds with fairly well fleshed breasts, and with backs, hips, and pin bones fairly well covered with fat. Must be fairly well bled and dressed, and may show scattered pinfeathers over the entire carcass. Crops must not contain over four ounces of feed. Slight flesh or skin bruises, abrasions or discolorations permitted, but not more than three defects to each bird. Abrasions or tears over three inches in diameter not allowed, except on the back

FIG. 11.—U. S. Medium Turkey. This is really a third grade turkey and represents a grade entirely too common. Turkeys grade higher when allowed to finish properly before being slaughtered. (U. S. D. A.)

of wings. Dented or slightly crooked breast bones or other slight deformities permitted. Broken wings below the second joint or broken legs below the flesh permitted.

U. S. Common or No. 3 Grade

Young birds which may be poorly fleshed with backs, hips, and pin bones poorly covered with fat. May show evidence of poor bleeding and numerous pin-

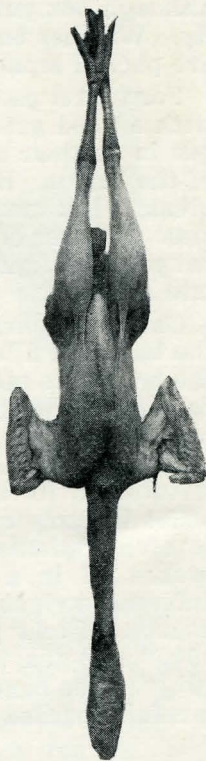


FIG. 12.—U. S. Common Turkey. This grade not only looks poor, but is as poor as it looks. Anything lower than this is unfit for food. This surely is bad enough. (U. S. D. A.)

feathers over the entire carcass. Crops may contain not over eight ounces of feed. Flesh or skin bruises, abrasions or discolorations permitted, but not such as to make any appreciable amount of the carcass inedible. Dented or crooked breast bones or other deformities allowed. Broken wings or broken legs are permitted.

Complete grade specifications for both old and young turkeys may be had by writing the Agricultural Extension Service, Lincoln, Nebraska or the Bureau of Agricultural Economics, United States Department of Agriculture, Washington, D. C.

PACKING

Dressed turkeys for shipment are usually packed in barrels, although box packing of fancy grades is gaining in popularity. Whether barrel or box packed different sizes and grades are packed separately.

For barrel packing meat barrels are used. These are lined with a good grade of clean wrapping paper. The birds are put in on their sides in a circle with backs against the sides of the barrel. Bend the legs and drop the head down on the breast. Put two to four birds to the layers, depending upon size. A layer of paper separates each layer of turkeys. Do not pack too tightly. About 200 pounds of turkeys are packed into a barrel.

Only clean, first-class material is used for packing. When the barrel is filled ram a broom stick through the center to the bottom to make an air opening for ventilation. With the use of a barrel hoop securely fasten a burlap cover over the top.

Handling and display features of the box pack have contributed to its use and popularity. Fancy young hens are about the only class of turkeys packed in boxes. These are carefully selected for uniformity in size and weight and packed 12 in a box. Standard sized boxes are used for different weight birds which vary from eight to twelve pounds. Eight pound birds are packed in boxes 22"x20"x10½" and ten to twelve pound turkeys in boxes 24"x20"x10½". The boxes are lined with parchment paper and when carefully packed make an attractive appearance.

SHIPPING

Shipping tags are tied or tacked near the top of the barrels and tacked to the end of boxes. Put two tags on each barrel or box. Be sure the writing is clear and that your own name and address is on each tag. It is also a good idea to write

your name and address on a piece of paper or tag and put it on top of the barrel under the cover. The number of birds with weight and grades may also be given. A good many buyers give instructions regarding packing and shipping. It is always a good plan to have these before shipments are made. It is also well to know that the turkeys are being shipped to a reputable dealer. Highest price quotations do not always indicate the greatest reliability or net return.

THE PREPARATION OF TURKEY FOR ROASTING

Some confusion exists regarding a dressed turkey. Housewives are occasionally disappointed upon finding the dressed bird they ordered only killed and picked, when from their understanding of the term, a bird completely drawn and with head and feet off was expected. As a matter of fact "dressed"

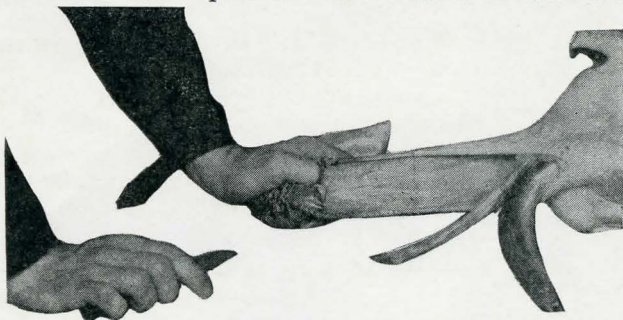


FIG. 13.—Turkeys are made more attractive when the neck is taken out in this manner. Simply slit the skin on the back of the neck from the shoulders to the base of the skull. Then remove the neck by unjointing it at these points. About half of the loose skin of the neck is cut off and discarded. The rest is pulled back over the shoulders.

means killed and picked. The rest of the process is called "drawn." When a bird is dressed and drawn the whole dressing process has been completed.

In the drawing and preparation of turkeys for roasting a much greater degree of attractiveness can be had, as well as a certain amount of efficiency in dressing, through a clear understanding of just what is to be done and how it is to be done. Furthermore, since the modern housewife prefers to buy her turkeys completely dressed and ready for the oven, it is the duty of whoever sells the bird to make it meet expectations. Often a housewife whose experience and skill in dressing turkeys is limited wishes a completed job on this account. Generally in such cases an expert job is expected, and again expectations must be met.

The whole procedure includes cutting off the feet at the hocks, removing the neck, cutting off the head with some of the excess skin of the neck, removing the crop and wind-pipe, opening the body and removing the entrails, liver, gizzard, heart and lungs.

A lot more neck, as well as an improvement in the appearance of the carcass is had when the neck is taken out as follows. The skin on the *back* of the neck is slit open from the shoulders to the head and with a deft twist of the knife the neck is unjointed from the head at the base of the skull.

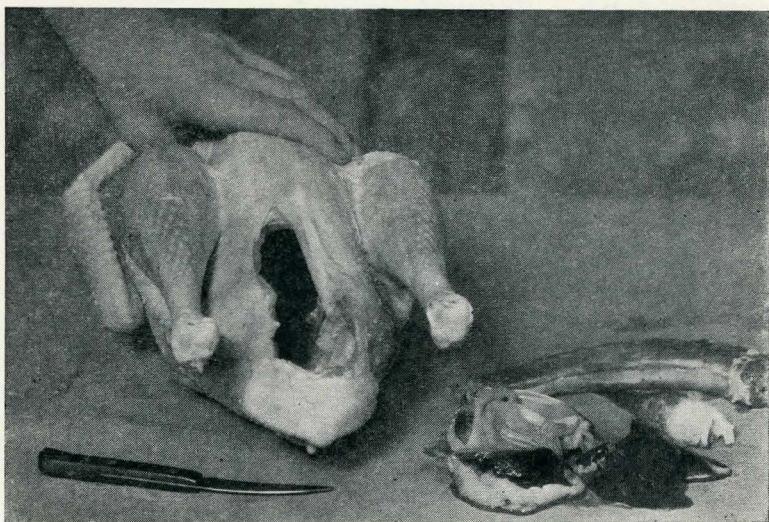


FIG. 14.—When the turkey is drawn the loose parts, neck, liver, gizzard, and heart, are put back into the body cavity. A string tied around the tail and drumstick ends add a more plump and finished appearance.

After cutting through the neck muscles at the shoulders the neck may be twisted off easily.

In removing the crop care must be taken to avoid tearing it when separating it from the tissue supporting it. The wind-pipe (trachea) and tube (esophagus) leading from the crop to the stomach and gizzard are simply pulled out. When the entrails are removed the gizzard is cleaned and put back into the body cavity with the heart, liver and neck. The turkey is then ready to go to the housewife to be washed, stuffed and roasted. (With practice the drawing can be done in five minutes time.)

COOPERATIVE TURKEY MARKETING IN THE NORTH PLATTE VALLEY

The uncertainty of disposing of turkeys at a reasonable profit after they are raised has been one of the problems of turkey growers living great distances from the larger markets. In some instances the advantages of turkey production are entirely offset because of this marketing difficulty. For years farmers of western Nebraska and eastern Wyoming faced this market uncertainty with growing dissatisfaction. In 1922 that discontent reached the breaking point.

Several small cooperative marketing pools were organized about this time. These operated independently and in spite of having to ship by express at higher transportation rates, they found results so much more satisfactory, that the number increased. The success of these small independent pools suggested the organization of a larger cooperative marketing pool through the merging of the small independent units. Reasons given for the merger included less overhead, carload shipments by freight with lower transportation costs, and more efficient marketing generally which would stimulate more efficient production, improve the quality, and increase the demand for turkeys from this section.

In 1924 this merger was perfected and the North Platte Valley Cooperative Turkey Marketing Association formed. Since that time it has no doubt suffered the growing pains common to young and inexperienced organizations of this character. It has, however, made very good growth and at the present time has a membership of over 500 farm turkey raisers scattered throughout about ten counties of the North Platte Valley. Since 1924 turkey sales through the association have totalled approximately \$500,000.00 with annual sales now going well over \$100,000.00. The association has the usual set of officers who are elected at annual meetings. There are two directors from each county who constitute the marketing committee.

The plan followed is simple and effective. Turkey growers report to members of the marketing committee the number of dressed turkeys they expect to deliver for Thanksgiving and Christmas shipments. These reports are made two or three weeks before the turkeys are to be delivered for shipment. The marketing committee totals the numbers of birds available for both Thanksgiving and Christmas. They then notify prospective buyers that the committee will meet at a specified time and place to receive sealed bids on the number of turkeys reported by the growers. Large buyers are glad

to know where they may purchase high quality graded turkeys in carloads. Thus the response of the buyers has been exceptionally good.

After the sale is made the growers are notified when and where to make delivery. The successful bidder or buyer provides all necessary equipment for handling, grading, packing and shipping the turkeys. The growers have learned to sort out the best birds which they kill, dress, and cool at home according to correct methods a day or two before they are to be delivered to the shipping station where they are graded, weighed, and paid for by the buyer who assumes all responsibility for packing and shipping. About 2000 turkeys totaling 19,000 to 23,000 pounds are loaded into the iced cars.

In case the turkeys are to be packed and shipped by the association, (F. O. B. sale and shipment) as sometimes happens, the secretary purchases the necessary supplies in the way of barrels, paper, tags, etc., and sees that these are distributed among growers according to their needs. If there is any doubt as to the financial responsibility of the buyers, the shippers may send the car C. O. D. so to speak, by using a shipper's bill of lading which requires payment before the car can be opened. (See any railroad agent for shipping details).

As a result of a number of turkey dressing demonstrations almost every turkey grower can now do a highly satisfactory job of dressing turkeys. Work is exchanged and withal a spirit of fun prevails through contests of speed and good workmanship. The men do the killing and rough picking, while the finishing is done by the women. The interest of buyers, the fine condition of the birds, and the few that go into the lower grades prove that this work is being done very efficiently.

Cooperative turkey marketing in the North Platte Valley has helped make turkey raising a major enterprise in that section. Production has increased. Flocks formerly menaced by coyotes are now fenced in alfalfa pastures. Clean ground and sanitary equipment now prevent blackhead. Good growing feeds have been added to the grasshoppers and other range feeds. Young, tender birds are marketed now instead of the slow growing, light weight, dry fleshed, fibrous turkey of the past.

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