

HOME HARVESTING OF BROILERS

“Linking Citizens of Louisiana with Opportunities for Success”



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The pastured poultry model consists of three aspects: production, processing and marketing of broiler chickens. Probably the least enticing and most labor intensive of these three is processing. However, it is crucial that this step be carried out carefully so you have a clean, healthful, attractive product to sell to your customer. That will ensure that the customer will want to buy from you and will pay a premium price the next time you have birds to sell.



Because processing is a rather unpleasant task, it is important that it be carried out efficiently in an area that will be as comfortable as possible for the workers and can be easily cleaned when the processing is finished. The sooner the job is done, the happier your crew will be.

GETTING READY

1. The area for processing should have a hard surface such as concrete with good drainage. A lot of water will be used in the process and it is not good to stand in water or mud while carrying out the task.
2. At least three hoses will be needed for processing and an electrical supply (preferably protected by a ground fault circuit interrupter) will be needed for the scalding tank (scaldler) and plucker.



3. The steps in processing include bleeding, scalding, plucking, evisceration, inspection, washing, and chilling. Having the



4. Having a fan blowing in the area will help keep the workers comfortable if the weather is hot. It will also help to keep flies away because they do not like wind.
5. The feed for the birds should be removed the night before processing so their crops are empty. In the morning, they should be caught as quietly and calmly as possible and transported to the harvesting area.
6. The scaldler should be filled and plugged in long before processing is to begin so the water has time to heat. Do not plug in the scaldler before filling it with water or you will burn out the element.
7. A crawfish pot should be available to produce extra hot water to help keep the scaldler water hot. It should also be started early so the water is near boiling when you are ready to start.

8. Check all the equipment to be sure it is operating properly.

Are the bleeding cones hung securely?

Are there sufficient buckets to catch the blood?

Are the knives sharp?

Is there a steel handy to hone the knives if they become dull?

Is the plucker working properly?



Do you have enough soaking tanks and pans for the birds and giblets?

Is there plenty of ice for the chill tank?

Is a sheet available to cover the tanks to keep out the flies?

Do your workers know what their jobs will be and how to carry them out?

9. Before processing begins, thoroughly wet the floor, walls and equipment in the processing area and keep it wet while the processing is going on. This will make the clean up much easier because the blood won't stick to the surfaces.

PROCESSING

Only a brief overview of the steps in processing will be presented here. Complete descriptions of the steps can be found in books or on-line sources (see below). If you are lucky, you can find someone who will demonstrate it for you and help you to learn.

Bleeding: The first step is bleeding. For this, the bird should be confined in a cone or shackle and the left jugular vein cut with a very sharp knife. You should cut only the vein. If the esophagus and trachea are left intact, the carcass will be cleaner and the heart will continue beating to help pump the blood out of the muscles. This will give a nice, pale carcass without blood splashes. It is best to restrain the bird for a few seconds until it stops flopping.

Scalding: Once the bleeding is complete, the bird can be submersed in the scalding tank. The water should be at about 142°F and you should try to have each bird in the water for about 2 1/2 minutes. During this period, move the bird up and down in the water to be sure the hot water gets next to the skin where it will cause the feather follicles to relax. If the water is too hot or the bird is kept in it too long, the skin will start to cook. This will cause discoloration of the skin and it may tear during plucking. If the water is too cool, the feathers will not be properly loosened. To check if the feathers are loosened, try pulling out some of the flight feathers on the wings. If they come out easily, the bird is ready to be plucked.

Plucking: The aim of plucking is to remove all the feathers. Whether done by hand or by machine, the more feathers removed at this stage, the better the product will be. Once the feathers are removed, the head can be pulled off and the feet removed.

Evisceration: The bird then moves to the evisceration area where the intestines are removed. Steps here include removal of the oil gland from the tail (or complete removal of the tail), cutting around the cloaca, loosening the skin on the neck and freeing the esophagus and trachea.

Once this is done, a hand can be inserted into the body cavity from the rear to grasp the gizzard. Pulling on the gizzard should accomplish complete removal of the viscera of the chicken. If you are saving the giblets, free the heart and liver from the mass. Be sure not to cut the gall bladder (green) when taking the liver out. If you should break the gall bladder, discard the liver and any other tissues with gall on them. Free up the gizzard and cut it open to remove the material in the gizzard as well as the inner membrane.



Inspection: When the evisceration is done, the carcass then moves to the Quality Control person who makes sure all the feathers have been removed and that the body cavity has been thoroughly cleaned and all stray bits of tissue removed.

Washing and Cleaning: The birds will then either be washed in running water or soaked in a rinse solution before being placed in the cold water chill tank. The aim should be to reduce the meat temperature to stop bacterial growth and produce a superior product. Unless the birds are to be sold the day of processing, they should be stored for a day or two at refrigerator temperature. For this, the birds should be put in plastic bags to prevent drying but the bags should not be sealed. The bags should be placed in the refrigerator such that there is good



air flow around the carcasses. After this chill period, the birds can be cooked and eaten, or sealed in freezer bags and frozen.

SALES

The day before processing, you should contact your customers to tell them where and when they can pick up the birds. It is a good idea to have a few plastic bags for the customers who forget to bring their own.

CLEANING

As soon as the processing is finished and the carcasses have been properly cared for, the processing area should be cleaned. All of the viscera, feathers and other waste should be completely buried in the compost pile. All of the equipment, the floors, and the walls should be carefully swept and hosed down to

remove all the blood and other foreign material. If necessary, the area can also be flooded with a bleach solution (1 tablespoon per gallon of water) to prevent growth of micro-organisms. The small equipment such as the knives and scabbards should be washed in hot water and detergent, then rinsed thoroughly before storage. After cleaning, sunlight shining on the area will help to sanitize it.

FURTHER INFORMATION

Book:

Damerow, Gail. 1995. A Guide to Raising Chickens. Storey Communications, Inc., Schoolhouse Road, Pownall, VT 05261, 341 pp.

On line:

www.ianr.unl.edu/pubs/foods/heg144.htm

www.ansi.okstate.edu/resource-room/meats/homeprocessingpoultry/index.htm