



MODULE NO. 19: Secondary **processing of poultry**

A Gateway to All Post Graduate Courses



1. Aging

- Aging or “maturing is the process of holding meat for a period of time between death and deboning in order to prevent toughening
- Aging allows the muscle tissue to relax and tenderize before eating.
- Aged chicken is more tender and have better flavour than meat processed immediately after the kill.
- Aging time for broiler chicken meat is storing the carcass under refrigeration until 4 hr after death .

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- The aging period is expensive due to the energy, labor and space required. Also due to water dripping from the muscle which reduces meat yield .
- Poultry meat needs to age for at least 4 hrs (6 to 8 hours in turkeys) before it is eaten or frozen, or it will be tough because of rigor mortis
- As bird is dead muscle cells continue metabolizing energy left in the muscles switching from aerobic metabolism to the less efficient anaerobic

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- Rigor mortis sets in gradually as the muscles deplete their energy stores. After a while the muscle structure starts breaking down and the muscle becomes flexible again. Tenderness is directly related to aging.
- Aging is done after slaughter and initial chilling. It improves tenderness and flavour of meat
- Meat subjected to aging is held at refrigeration temperature. The breakdown of muscles and connective tissues at this temperature makes the meat tender.

Steps involved in aging process:

1. Wrap each chicken in cotton cloth to retain moisture

2. Place chickens in a refrigerator

3. Ensure sufficient space between birds exists for proper air circulation

4. Ideally, place chickens on racks, not solid shelves, to facilitate circulation

5. Remove the chicken in 1-3 days for quartering, freezing, canning or eating.

2. Deboning

- Deboning process is done after evisceration. The chicken to be deboned should be clean and attractive. Steps to be taken into consideration for deboning :

1. Skin, neck and arm tip of the poultry is removed.

2. Then the bird is cut into pieces and breast, thigh and drum stick are separated from the rest.

Further deboning process

1. Place the skinless whole chicken breast, meaty side down, on a cutting board. Cut a small slit through the membrane and cartilage at the V of the neck end.



2. Grasp the breast with both hands and gently bend both sides backward to snap the breastbone.



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3. With fingers, work along both sides of the breastbone to loosen the triangular keel bone; pull out the bone.



4. With the tip of a sharp knife, cut along both sides of the cartilage at the end of the breastbone; remove cartilage.



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5. Slip the point of the knife under the long rib bone on one side of the breast. Cut and scrape the meat from the rib bones, pulling the bones away from the meat.



6. Cut the meat away from the collarbone; remove the bone. Repeat the procedure to debone the other side of the breast.



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7. Packaged whole, bone-in breasts already have the wishbone removed. Cut the meat away from the bone with the tip of the knife.

8. Grasp the wishbone and pull it out of the breast.



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9. To remove the white tendon from each side of the breast, cut enough meat away from each tendon so you can grasp it. (Use a paper towel for a firmer grasp.) Pull out the tendon.

10. Turn the breast meaty side up. If desired, remove the chicken tenders from the thickest edge of each breast half. Trim any loosened connective tissue that remains.



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11. Cut the whole chicken breast into halves lengthwise to make two, perfect, single-serving pieces.



Thigh and drum stick are deboned as:

1. For the thigh, knife is inserted in-between the bone and the meat to slice out the connections of the bone and the meat.

2. Then the meat is separated from the bone, same is done on other side.

3. For the leg, as the skin has been already removed, insert the knife in between the bone and the meat from the joint where leg and thigh has been pulled apart.

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4. Then slice around the bone to sever the connections between the bone and the meat.

5. Slice around the bone until you are able to pull out the bone from the meat cleanly.

Suggested Readings

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