

# Deer Processing Workshop

## Instructor Notes

This lesson introduces the students how to safely and confidently break down and quarter a whitetail deer. It will also introduce students to using common butchery skills and tools such as a grinder and vacuum sealer. This lesson can serve as a stand-alone workshop or be utilized as an add on segment to other coursework.

## Teaching Methods Used in This Lesson

- Discussion
- Student Hands-on Learning

## Time Suggested

2.5 Hours

## Materials Required

- 1 deer per 10 students
- Knives
- Knife sharpener or replacement blades
- Bone saw
- Hefty trash bags for bones/hide
- 3 folding tables
- Gambrel and pulley/winch (of some sort)
- Nitrile gloves (Sizes S, M, L, XL)
- Meat grinder
- Ground meat bags
- Meat totes (or some way to hold and transfer meat)
- Vacuum sealer and bags
- First aid kit

## Station Set-up

20 minutes

1. Select a location to setup a gambrel and pulley (or winch) with open space surrounding to ensure students of all abilities can actively participate.
2. When possible, use a freshly gutted deer that is NOT skinned, and begin with it hanging on the gambrel from its back legs.
3. Be sure you can put a lot of weight on the gambrel which will aid in your ability to skin.
4. Set one table up that will have the meat grinder and bags and vacuum sealer.
5. Set another table up that will be for deboning the rear legs and backstraps.
6. Set the third table up for deboning the front shoulders and neck meat.

7. Students will rotate between tables in a “round robin.”

### Lesson Plan

#### Part A:

##### Focus Activity (1 minute)

The purpose of the focus activity is to get everyone focused on the lesson. Ask: “How many of you have processed a deer? How about any other game animals? What do you think are some of the basic first steps you must accomplish first? Skin? Quarter?”

#### Part B:

##### Objectives (1 minute)

State the learning objective to the students: At the end of this lesson, you will be able to:

- Choose appropriate tools for processing large game.
- Safely debone meat from a deer.
- Use a meat grinder, and safely package meat for freezing.
- Use a vacuum sealer, and safely package meat for freezing.
- Identify the simplified cuts of meat from a deer (backstraps, inner tender loins, neck meat, top round, bottom round, eye of round, shanks).

#### Part C:

##### Teaching Method (10 minutes)

1. Say: “Processing a deer can be one of the more intimidating aspects of harvesting an animal and isn’t totally necessary if you would like to hire a butcher, but it’s a great skill and knowledge to have.” Ask the students their current comfort level or knowledge of processing animals.
2. Identify the tools necessary to safely process a deer. Convey the importance of knife types (boning knives, filet knives, steaking knives) and how blade shape and length play an important role in knife control. Show students knives that are commonly chosen for processing animals. Stress the importance of maintaining a sharp knife to avoid over exertion which could lead to a potential injury.
3. Explain to students the importance of working slowly and methodically. Doing so reduces the chance of injury during the process.
4. Encourage students to take pictures or videos during the workshop. These videos can be used by students in the field later or for review after the class.

5. Encourage students to ask questions throughout the class. Pause or take extra time during the process to ensure all the students can view each step.
6. Rotate every student through the process and give them all an opportunity to try a hands-on part in the process.
7. Demonstrate different types of personal protective equipment that should be utilized.
8. Continually repeat how to operate safely.

#### Part D:

##### Student Exercise (2.25 hours)

The purpose of the student exercise is to have them learn how to skin and process a deer. Divide the class into groups of ten or less to ensure students can actively participate. Each group of ten students will be given one deer to process. Proceed with the student activity which will start with skinning and quartering as a group (30 minutes), and then break into smaller round robin groups that will focus on meat grinding/preservation (30 minutes), deboning front shoulders and neck (30 minutes), and deboning hind quarters (30 minutes) with 5 minutes between each station to switch:

#### HOW TO SKIN

1. Instruct the students to put on nitrile gloves. Instructor MUST also wear nitrile gloves.
2. Begin with a deer hanging on a gambrel by its hind legs with the head facing the ground, skin on and gutted.
3. Ask the students “why would we want to hang the deer this way? How long might we want it to hang before processing? What are some factors that influence those decisions?”
4. Ask the group for one volunteer to begin the skinning process.
5. Have the student begin by making a cut under the skin from the anus up the back leg. Have the student follow the line where white hair turns to brown hair.
6. Switch out to another student to repeat the cut for the other back leg.
7. Have a student then begin skinning the hide from the leg using these initial cuts. At this point, continue to rotate students in and have them free the skin from the knee area and prepare it to be pulled down.
8. Once the skin is freed from the legs, guide a student in how to remove the tail, and then use that to begin removing the hide.
9. Let each student get a chance to experience pulling the skin down and off the deer, as they can experience the labor involved. Instruct students how to use their elbows to assist in the process, as well as using a knife when needed if the skin gets stuck.
10. Once the hide gets down to the front shoulders, instruct students how to make cuts to remove the skin from the tight narrow front shoulders and neck area. There are a few potential methods, but the easiest is using a knife and follow the seam of hair on the front legs to split the skin and peel around and away.

11. Continue this down the neck and roll the skin away until you hit the base of the head and cut through the top of the spinal column with a knife or bone saw. Now the skin will be free to move away, leaving the carcass ready to be quartered.

## HOW TO QUARTER

12. Now that students have successfully skinned the deer, instructors will demonstrate how to separate the two front shoulders, rib cage and backstraps, neck, and hind legs.
13. Use a volunteer student to first show how to remove a front shoulder. The front shoulder comes off easy, as there is no joint or bone structure to break through. Assist the student by supporting the front legs weight as they cut it away from body.
14. Grab another student and repeat this for the other shoulder. Lay both shoulders off to the side in a safe clean place.
15. Next, use 1-2 volunteer students to work on separating the neck from the spine and rib cage. Instructors should once again support the weight of the neck to assist the students and guide them in severing the neck close to junction with the ribcage. You may need to use the bone saw to finish removing it and set it off to the side when done. You will now be left with the ribcage and spine and the hind legs.
16. At this point, depending on how or when the deer was gutted, would be a good time to remove the inner tenderloins that are nestled under the spine inside the body cavity. Some hunters remove these when gutting, so each situation will be different. If the tenderloins are present, take time to guide a few students in carefully removing them and setting them aside.
17. Instructors can now have the students remove the backstraps, while the deer is still hanging with the hind legs attached, or they can use the bone saw to remove the whole rib cage and spine with backstraps still attached and have the students remove them at their next station.
18. Now, all that should be left on the gambrel is the two hind legs and the pelvis that connects the two of them. The last step in quartering will require the students to use gravity to help carve away each hind quarter from the pelvis. Rotate in as many students as possible until the pelvis is removed, and you have two hind quarters ready for the next stations.

## DEBONING FRONT SHOULDERS AND NECK

19. At this station, there will be two front shoulders and the neck.
20. Students will rotate in and get an opportunity to debone meat from both a front shoulder and the neck, which will inform the student of the differences in anatomy of these two parts.

21. Have a meat tote on hand, and have students place deboned and cleaned meat into this tote which can be used for demonstration in the grinder.
22. Instructors can stop students when they separate the joints in the front leg and discuss how some hunters will keep these 'bone in' chunks for braising down and making shredded venison such as a 'blade roast' (but in this case it will all be ground up).
23. Discuss the importance of trimming silver skin and tendons, dependent upon how large and effective the meat grinder is that will be used for demonstration in the class. I.e. a grinder attachment to a kitchen-aid mixer will need significantly more trimming and prep work done to the meat before grinding. A large meat grinder over 1 hp in size will not require as much tedious work.
24. These two front shoulders and neck will also be used for two other groups of students, so instructors should not rush the students through the process.
25. Inform students how to use their knife effectively to cut meat away and not damage their blade edge. This point will be important in all the stations.
26. After 30 minutes, rotate students to the next station.

#### DEBONING HIND QUARTERS AND BACKSTRAPS

27. At this station, students will take turns deboning the meat from the hind quarters as well as removing/cleaning up the backstraps.
28. It will reinforce how to safely and effectively debone meat through further practice.
29. With a hind quarter, guide the students through tracing the femur from the hip joint down and around the kneecap and through the shank to remove the whole legs worth of meat in one large cut.
30. Then students will take turn under guidance of the instructor in rolling out the deboned leg and piecing it apart muscle group by muscle group.
31. Instructors should highlight top round and bottom round as they get cut free by the students and advise students on some alternative uses (for making jerky, braising, or corning).
32. This will leave the eye of round separated and explain that piece of meat to the students as well. All three of these pieces can be chunked up and added to a meat tote to then be sent to the grinding station.
33. One thing to note for students, is the waxy gland encased in fat that is located between the top, bottom, and eye of round. It is important to remove and discard that gland and not grind it.
34. The sirloin tip or round tip also known as a 'football roast,' will then be separated and trimmed by the students. This, like the other large hind quarter cuts, can also be used for large, braised roasts.

35. If the back straps are still attached to the spine and rib cage, advise students on how to gently remove it. It is important for students not to rush this cut, and truly learn how to use knife skill to peel it from the spine and preserve the meat in one solid cut.
36. Once removed, have the students use a longer knife (or filet knife) to practice removing the silver skin that is attached to the back strap. NOTE: Some hunters will remove this later when they are preparing to cook, but since the opportunity is there for learning, students should try.
37. With a steaking knife, allow students to cut the backstraps into steaks, that can be vacuum sealed for demonstration at the grinding station.
38. If the rib cage meat is in good shape, and there is no gut material present, have the students remove the rib meat and add to a meat tub of future grind.
39. Guide students through these multiple deboning and trimming options until 30 min is up and rotate the group.

#### GRINDING MEAT/VACUUM SEALING/PACKAGING

40. Instructors will guide students in the process of grinding meat.
41. Emphasize safety to students, in never putting their hand near or in the throat of the grinder.
42. As students begin to grind meat, have them inspect the trimmed and deboned meat as they load it in, and have them do some finish trimming of silver skin and tendons if need be.
43. Use a meat tote to catch the ground meat and allow the students to stuff this ground meat into ground meat bags, or into premade vacuum seal bags.
44. Be sure to encourage every student to operate the meat grinder, as well as the vacuum sealer.
45. Discuss with students about how this equipment isn't necessary, but modern electric meat grinder greatly reduce the amount the workload compared to a hand grinder.
46. Also discuss how vacuum sealing isn't necessary but ensures a long shelf life in the freezer. If a hunter will consume a deer within 6 months to a year, they could keep the deer in sealed plastic wrap and butcher paper in large cuts to cut down on work.

#### Part E:

##### Student Summary/Wrap Up (10 minutes)

Ask the students to recall the important topics that were covered in the lesson (where to start your cut for skinning and how to dismantle the deer into workable quarters). Ask the students if they have any further questions. Allow for time for questions regarding deer processing, hanging time depending on ambient temperature, any other related questions.

##### Station Clean Up (20 minutes)

1. Bag the bones/sinew/hide or anything unused for proper disposal.

2. Remove the deer.
3. Wash and fold the table and all meat totes, and tools for meat processing.
4. Wash and sharpen knives used.