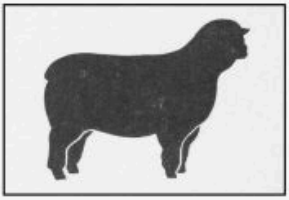
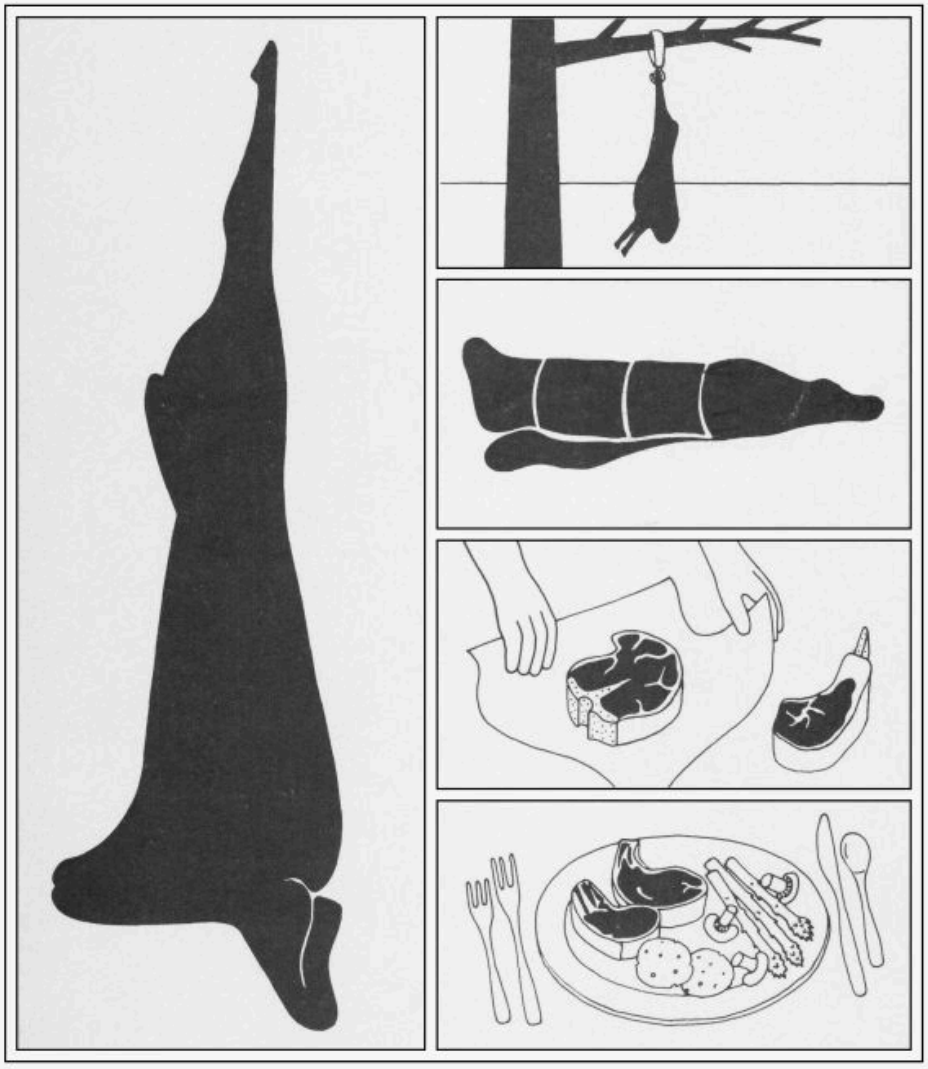
LAMB

Slaughtering, Cutting, Preserving, and Cooking on the Farm





UNITED STATES DEPARTMENT OF AGRICULTURE

FARMERS' BULLETIN NUMBER 2264

PREPARED BY AGRICULTURAL RESEARCH SERVICE

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PRECAUTIONS

The Law

The Federal Meat Inspection Act requires that all meat which is to be sold or traded for human consumption must be slaughtered under inspection in an approved facility under the supervision of a State or USDA meat inspector. A person can slaughter his animals outside such a facility only for use by him, members of his household, his nonpaying guests and employees. He is not allowed to sell any portion of the carcass. For more details about these regulations, consult your county extension agent or write to the Animal and Plant Health Inspection Service, United States Department of Agriculture, Washington D.C. 20250.

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Lamb Slaughtering, Cutting, Preserving and Cooking on the Farm

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SELECTION AND CARE OF ANIMAL BEFORE SLAUGHTER

Several factors should be considered before slaughtering a lamb for home consumption. The most important considerations are health, care of the animal prior to slaughter, kind of animal (lamb or mutton), and expected meat yield.

Health

One should take care that an unhealthy animal is not selected for slaughter. At the time of selection, look for signs of sickness such as fever, increased breathing rate and diarrhea. Animals suspected of being unhealthy should be treated by a veterinarian until the animal is returned to a healthy state.

Animal Care

To obtain high-quality meat, it is important to exercise proper care of the animal prior to slaughter. Pen the animal in a clean, dry place the day before slaughtering. Restrict the animal from feed 24 hours prior to slaughter, but provide access to water at all times. Withholding feed results in greater ease of evisceration (because the gastrointestinal tract is smaller) and minimizes the migration of ingested bacteria from the gastrointestinal tract into the blood stream. Access to water enhances complete bleeding, results in brighter colored lean in the carcass, and enhances pelt removal.

Animal Type and Meat Yield

Animal age will have a sufficient effect on the palatability of the cooked product. Carcasses from sheep are classed as lamb (12 to 14 months or less), yearling mutton (14 to 24 months), or mutton (over 2 years) on the basis of differences that occur in the development of their muscular and skeletal systems. Differences in palatability between the lamb and mutton meat are substantial. Meat from mutton carcasses has a very intense flavor which is undesirable to some individuals. Mutton is seldom marketed as retail cuts but rather as soup stock or in further processed meat items.

A meat-type lamb carcass, when cut and trimmed according to the methods described later, will yield over 70 percent of its carcass weight in major trimmed cuts. Expected yields of retail cuts from a yield grade 2 (trim) and a yield grade 4 (wasty) carcass are presented in table 1.

Closely trimmed retail cuts	Percentage of carcass weight	
	Yield grade 2	Yield grade 4
Leg, short cut	22.2	19.4
Sirloin	6.4	5.8
Short loin	10.1	9.5
Rack	7.9	7.5
Shoulder	23.8	21.6
Neck	2.1	1.9
Breast	9.8	9.8
Foreshank	3.4	3.2
Flank (boneless stew)	2.3	2.3
Kidney	0.5	0.5

Fat	8.2	15.4
Bone	3.3	3.1
Total	100.0	100.0

Adapted from Smith, King & Carpenter, 1975.

TABLE 1—Comparison of yield of retail cuts between USDA yield 2 and yield grade 4 lamb carcasses

PREPARING FOR SLAUGHTER

Prior to the day of slaughter, select the slaughter site, accumulate all equipment, prepare for waste disposal, and, if necessary, make arrangements with a local processor or meat market for chilling and cutting the carcass. If you plan to have the carcass chilled and cut up, arrangements should be made concerning the time and day on which the carcass can be accepted, the charges and specific instructions for chilling, cutting, wrapping, and freezing the carcass.

Site Selection

Selection of the slaughter site is extremely important. A site with clean running water is best. If a tree is to be used, a healthy limb, 6 to 8 inches in diameter, which is 8 to 10 feet from the ground is needed. This will ensure that the limb will not break from the weight of the carcass and the carcass can be fully extended from the ground for pelting and viscera removal. If slaughter is to be done in a barn, be sure that a strong beam 8 to 10 feet from the floor is available. The floor should be clean, and preferably, concrete.

After selection of the slaughter site, clean up the area to ensure that leaves and dirt are not blown on the carcass during slaughter. If the site has a wooden or concrete floor, wash the floor and all equipment with plenty of soap and water. Be sure to rinse thoroughly because sanitizers discolor the meat and may cause off flavors. If slaughtering is to be done outdoors, use straw to cover the area where the carcass will be pelted and eviscerated.

The weather on the day of slaughter should also be considered. During hot weather, slaughter is best performed during the early morning or late evening hours. Since an inexperienced person will take 1 to 2 hours to complete the slaughter operation, care should be taken to preclude long exposure to high temperatures. During cold weather of less than 35° F, slaughter can be done at any time, since spoilage bacteria do not grow as rapidly in a cold environment. Slaughter during high winds will result in dirt and other contaminants being blown onto the carcass.

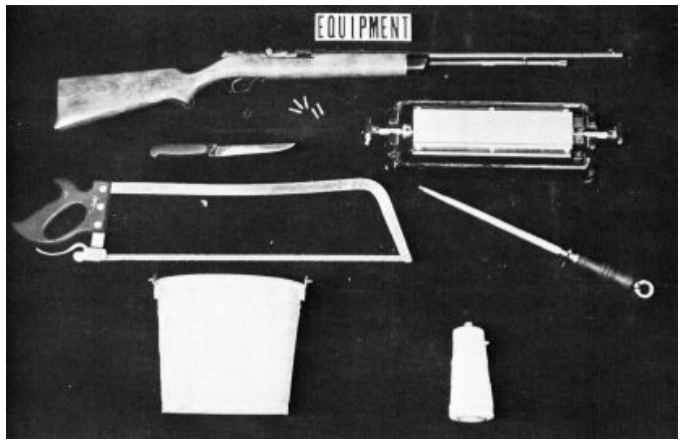
Waste Disposal

All waste products should be disposed of in a sanitary manner. If the work is to be done in the open, one should select a site with good drainage so that blood and water can drain away from the carcass. Blood and water must not be allowed to pollute nearby streams or other water supplies.

Disposal of viscera is often a problem. Arrangements should be made to have a local processor or rendering plant pick it up. If this is not possible, it should be buried so that dogs and other animals cannot dig it up.

Slaughter Equipment

Elaborate and expensive equipment is not necessary, but certain items are essential (fig. 1). The following slaughter equipment is recommended:



PN-5019

Figure 1.—Equipment for slaughter.

1. .22-caliber rifle or pistol with long or long rifle cartridges.
2. Sharp boning knife and steel.
3. Block and tackle or strong rope.
4. Oil or water stone.
5. Ample clean water for washing hands, carcass, and by products.
6. Tree with strong limb, beam, or tripod 8 to 10 feet high.
7. Buckets (two or three).
8. Ice or cold water.
9. Straw for placing under animal during pelting and evisceration.

10. Clean cloths or plastic for protection of meat during transport.
11. Clean string.

Be sure that all equipment which will come in contact with meat is thoroughly cleaned. Most people get blood and other material on their outer garments during slaughter, which should not be transferred to the carcass after it is washed. If weather permits, wear short sleeve shirts and wash arms and hands frequently to prevent contamination.

Additional equipment needed for cutting the carcass is discussed in the section on carcass cutting.

SLAUGHTER

Stunning

The animal should be properly secured to a tree or strong post and killed as quickly and humanely as possible. Stun the animal with a well directed bullet (.22 caliber rifle or pistol) in the forehead, midway between and slightly above the eyes (fig. 2). Make the first shot count since a careless shot can cause the animal much pain or injure helpers. As with the use of any firearms, normal precautions should be taken when stunning the animal.



PN-5020

Figure 2.—Stunning.

Bleeding

Bleeding should be done as quickly as possible after the animal is down, using a straight boning knife and holding the animal in position with the knee on or behind the shoulder. Grasp the lower jaw with the left hand, pull the head back and insert the knife just back of the jaw where the angle is made (fig. 3). With the cutting edge to the outside, insert the knife as close to the neck bone as possible. Cut clear through and then outward, severing the windpipe, gullet and blood vessels (fig. 4).



PN-5021

Figure 3.—Bleeding



PN-5022

Figure 4.—Bleeding.

Pelt Removal

Hands and equipment must be kept clean in order to produce a clean carcass. Dirt and wool on the carcass are very difficult to remove and usually have to be trimmed. Make certain there is a good supply of clean water available at all times. Also, pelting (fisting) is much easier if the hands are kept slightly wet.

Legs, Breast and Midline.—The pelt can be opened around the legs and along the midline and breast from the horizontal or suspended position. The procedure selected depends on personal preference and the equipment available.

Horizontal method.—Place the animal on its back on a clean floor (concrete, slate, or piece of plywood) (fig. 5). Standing to one side of the lamb, hold one front leg between your knees and allow the lamb to lean away. Remove a narrow strip of skin down the front of the foreleg, being sure to remove the skin over the knee (fig. 6). Turn the knife (with the cutting edge toward the skin) and make an opening to the neck in front of the breast (fig. 7). Make certain to cut toward the skin to avoid cutting through the thin membrane (fell) covering the outside of the carcass. If this membrane is broken, the lean muscles will bulge through and give the carcass an unattractive appearance.



PN-5023

Figure 5.—Horizontal position.



PN-5024

Figure 6.—Skinning foreleg.



PN-5025

Figure 7.—Skinning neck.

Skin the opposite leg the same way, meeting the cut made in front of the breast. Open the pelt down the neck to the opening made by sticking (fig. 8). This will form a V-shaped strip of pelt over the breast. Remove the pelt over the breast by pulling the pelt up and back. Once started, it is best to complete by fisting. Push the fist under the pelt with the knuckles next to the carcass and the thumb over the first finger (fig. 9). Press the fist up against the skin working it away from the carcass. Work slowly and avoid tearing through the fell and muscles. After the pelt is loosened over the brisket (fig. 10), stop and skin out the rear legs.



PN-5026

Figure 8.—Skinning neck.



PN-5027

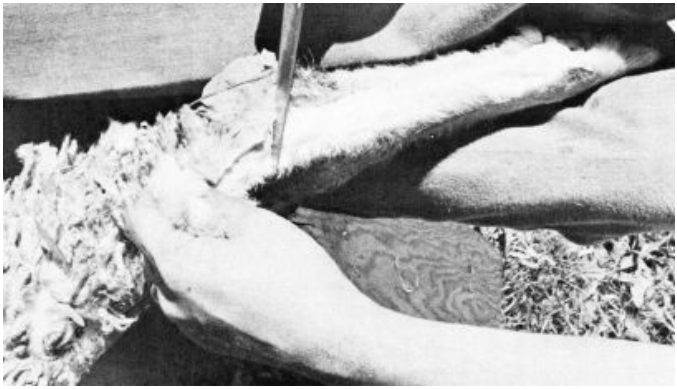
Figure 9.—Fisting brisket.



PN-5028

Figure 10.—Fisting brisket.

Stretching the rear legs, remove a strip of skin down the back of the leg and over the hock (fig. 11). With the leg still between your knees, turn the knife outward and open the skin from the hock to a point in front of the anus (fig. 12). Skin around the hock and down the shank. Remove the foot at the last joint (the one next to the hoof). See fig. 13. Follow the same procedure on the other leg and then fist the pelt off the inside of the legs and over the crotch (fig. 14).



PN-5029

Figure 11.—Skinning hindleg.



PN-5030

Figure 12.—Cutting to midline.



PN-5031

Figure 13.—Removing foot.



PN-5032

Figure 14.—Fisting over inside of legs.

From the breast, fist down the belly and around the navel to the opening at the crotch (fig. 15). The carcass is now ready to be hung.



PN-5033

Figure 15.—Fisting down belly.

Tie a heavy cord around the hindlegs, and suspend the carcass. The point of hanging should be approximately seven feet from the ground to provide a good working height.

Suspended method.—Tie a heavy string around one of the rear legs and suspend the carcass (fig. 16). On the leg not suspended, remove a strip of skin over the hock and past the dew-claws (fig. 17). Turn the knife outward and open the skin from the hock to a point in front of the anus. Skin around the hock and down the shank (fig. 18). Remove the foot at the last joint.



PN-5034

Figure 16.—Suspended carcass.



PN-5035

Figure 17.—Skinning hindleg.



PN-5036

Figure 18.—Skinning hindleg.

Remove a strip of skin along the suspended leg and cut the skin from the hock towards the anus, connecting with the cut from the other leg (fig. 19). Remove the skin around the shank. Fist along the cut between the legs, removing the pelt around the back of the legs, in the crotch and around the front of the legs. Suspend the carcass by the opposite leg and remove the foot on the loosened leg. Tie a heavy cord around both rear legs and suspend the carcass (fig. 20).



PN-5037

Figure 19.—Skinning hindleg.



PN-5038

Figure 20.—Both legs tied.

Remove a strip of skin along the back of the front legs from the knee to the foot (fig. 21). Make a split in the pelt beginning at each knee and connecting at the neck in front of the breast. Open the pelt down the neck to the opening made by sticking (fig. 22).



PN-5039

Figure 21.—Skinning foreleg.



PN-5040

Figure 22.—Opening pelt to neck.

Remove the pelt over the breast by pulling the pelt up and back (fig. 23). Once started, it is best to complete by fisting. Fist along the belly and around the flanks, meeting the opening made at the rear legs (fig. 24).



PN-5041

Figure 23.—Fisting brisket.



PN-5042

Figure 24.—Fisting belly.

Sides and back.—Open the pelt down the midline

of the belly and loosen the navel. Hold the pelt tight with one hand and fist off the sides, work around to the back, and up around the hindlegs (fig. 25). If the fell is broken try to work around the break to get a new start. Fist down past the shoulder, around the sides and up over the rump. From underneath the hock, push up until the pelt hangs by the skin that is fastened to the tail and anus (fig. 26). It will be necessary to use a knife to remove the pelt around the tail (fig. 27). Carefully skin around the tail and allow the pelt to drop (fig. 28).



PN-5043

Figure 25.—Fisting side and back.



PN-5044

Figure 26.—Pulling pelt up.



PN-5045

Figure 27.—Skinning around tail.



PN-5046

Figure 28.—Let pelt drop.

The front feet can be removed by cutting through the joint at the knee (fig. 29) or by breaking them at the "break" or "spool" joints. To break the legs at the "break" or "spool" joint, cut across the tendon between the knee and foot (fig. 30), grasp the foot in one hand, the leg in the other, and break back and sideways. On young lambs the "break" joint will snap easily and the foot can be removed. On older lambs, it will be necessary to cut across the pastern joint and twist the toes off. This joint is called the "spool" joint (fig. 31). Wash the carcass thoroughly before eviscerating. Remove the head at the joint closest to the head (fig. 32).



PN-5047

Figure 29.—Removing foreleg.



PN-5048

Figure 30.—Removing front foot at spool joint.



PN-5049

Figure 31.—Spool joint.



PN-5050

Figure 32.—Removing head.

Evisceration

Loosen the large intestine by cutting around the rectum deep into the pelvic canal (fig. 33). Pull the rectum outward cutting any remaining attachments. Tie a piece of string around the large intestine near its opening and let it drop into the pelvic cavity (fig. 34). In lamb or mutton the pelvic bone is not separated.



PN-5051

Figure 33.—Loosening anus.



PN-5052

Figure 34.—Tying anus.

Locate the end of the sternum (fig. 35) and split the breastbone with a knife or saw (fig. 36). Do not cut into the body cavity. Make a cut through the cod or udder into the pelvic cavity. Make this opening large enough to insert the hand. Insert the knife handle inside the body cavity and with the blade extended outward, open the body cavity to the opening made at the brisket (fig. 37). Allow the paunch and intestines to roll out and hang. Do not allow them to fall as the esophagus will tear and spill its contents onto the carcass. Find the loosened large intestine, and pull it down past the kidneys, leaving the kidneys intact (fig. 38). Remove the liver by reaching behind and pulling it while cutting the connective tissue (fig. 39). Examine it for any abscesses (yellow or white pus) or scar tissue. Remove the gall bladder from the liver by cutting beneath it and pulling (fig. 40). Be careful not to allow its contents to spill on the liver.



PN-5053

Figure 35.—Locating breastbone.



PN-5054

Figure 36.—Splitting.



PN-5055

Figure 37.—Opening midline.



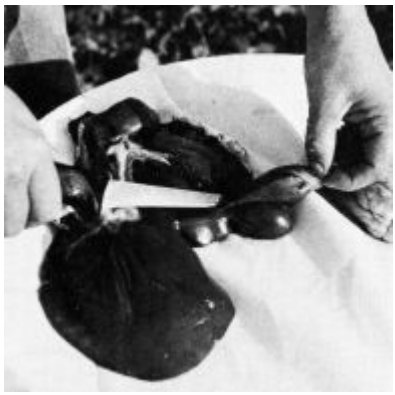
PN-5056

Figure 38.—Removing large intestine.



PN-5057

Figure 39.—Removing liver.



PN-5058

Figure 40.—Removing gall bladder.

Pull the paunch and intestines outward and cut through the diaphragm (the thin sheet of muscle and white connective tissue that separates the lungs and heart from the stomach and intestines). Make this cut at the edge of the thin muscle (fig. 41). Sever the large artery at the backbone and pull downward, removing the heart, lungs, and windpipe with the paunch and intestines (fig. 42).



PN-5059

Figure 41.—Cutting diaphragm.



PN-5060

Figure 42.—Completing evisceration.

Cut across the top of the heart and separate it from the lungs. Wash the heart and liver carefully in cold water and place them on ice to chill.

Remove the kidneys and kidney fat and wash the inside of the body cavity thoroughly (fig. 43). Rewash the outside and move to the chilling location.



PN-5061

Figure 43.—Washing.

Examining the Carcass

All the internal organs and the dressed carcass should be examined carefully for any abnormalities or conditions that might affect the fitness of the meat for food. Usually, a meat inspector or graduate veterinarian is the only person qualified to do this, but under farm conditions it becomes necessary for you to look for the obvious signs of disease or

damage. If any part of the viscera or carcass is questionable, you should obtain expert advice.

Bruises, minor injuries, parasites in the organs, and enclosed abscesses, and single tumors are frequently local conditions that can be easily removed. However, the presence of congestion or inflammation of the lungs, intestines, kidneys, inner surface of chest or abdominal cavity and numerous yellowish or pearl-like growths scattered throughout the organs should be viewed seriously. Carcasses and viscera having such abnormalities should be examined by a graduate veterinarian and his opinion obtained as to the wholesomeness of the meat. You should check with a cooperating veterinarian before slaughtering the animal to be certain he will be available if you should seek his advice.

CHILLING THE CARCASS

Following evisceration, the lamb carcass should be carefully trimmed and any pieces of adhering skin, wool, bruises, hair, or manure removed. Lamb carcasses are not split longitudinally because they are not thick enough in any dimension to create cooling problems.

The surfaces of freshly slaughtered lamb carcasses are contaminated with bacteria that can spoil the meat unless their growth is promptly checked. Bacterial growth can be slowed by prompt chilling and keeping the carcass at low temperatures. If the weather is suitable (28° to 35° F), the carcass can be wrapped in a sheet, hung and chilled in a well ventilated shed. Wrapping with clean cloth will partially protect the carcass from contamination.

Do not allow the carcass to freeze because freezing within one day after death may toughen the meat. If the carcass cannot be chilled to below 40° F on the farm, it should be transported to the local locker plant or market for chilling. The need for prompt and thorough chilling of warm carcasses cannot be over-emphasized. The carcass can be cut into retail cuts after the carcass has been chilled for 24 to 48 hours.

CUTTING

Use the following guidelines to determine cutting and packaging instructions for the processor if the carcass is not cut and wrapped on the farm.

Chops.—Those from young animals can be broiled or pan fried and should be at least ¾ to 1 inch thick. The loin and rib chops are relatively small and it takes two or three to comprise a serving. Those from the sirloin and shoulder are larger and only one chop may suffice. Allow ¾ of a pound bone-in per person (uncooked) as a guide.

Roasts.—Allow ¾ pound per serving for bone-in roasts (leg, shoulder) and ½ pound per serving for boneless roast (bone and rolled shoulder).

Ground lamb and stew.—Allow ½ pound per serving.

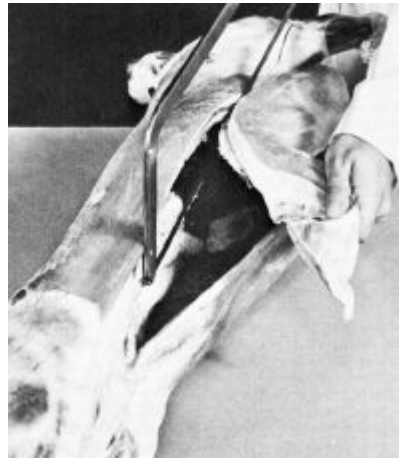
Carcass Cutting Equipment

Elaborate and expensive equipment is not necessary, but certain items are essential. The following equipment is recommended:

1. Steel.
2. Boning knife.
3. Meat saw.
4. Freezer paper (see section on “wrapping”).
5. Freezer tape.
6. Meat grinder (electric or hand powered).

Cutting the Carcass

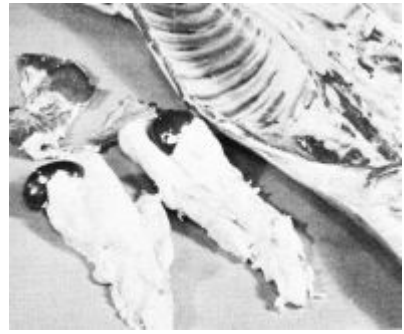
Begin cutting the lamb carcass by removing the thin cuts—the breast, flank, and foreleg. Lay the carcass on its side and mark a cutting line from the elbow joint of the foreleg to the front part of the hindleg. Most of the flank can be removed by starting the cut between the legs at the cod or udder fat where the flank begins. Figure 44 shows this cut made in a straight line from the front of the hindleg to the elbow joint. More of the rear flank and lower ribs can be removed by making the cut higher, near the hindleg. However, the cut across the lower shoulder should be as close to the joint on the foreleg as possible to leave the shoulder roast large.



PN-5062

Figure 44.—Steamling.

After removing the thin cuts from both sides, remove the kidneys, kidney fat, and diaphragm (fig. 45), if not removed at slaughter. Turn the carcass over on to the cut surfaces and remove the neck. Cross sectional cuts make neck chops, which should be braised; or the neck may be cut off flush with the top of the shoulder and added to stew or ground lamb (figs. 46 and 47).



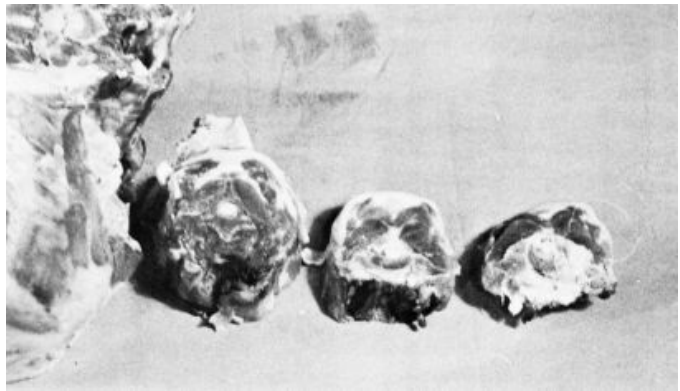
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Figure 45.—Kidney and kidney fat.



PN-5064

Figure 46.—Neck chops or slices.



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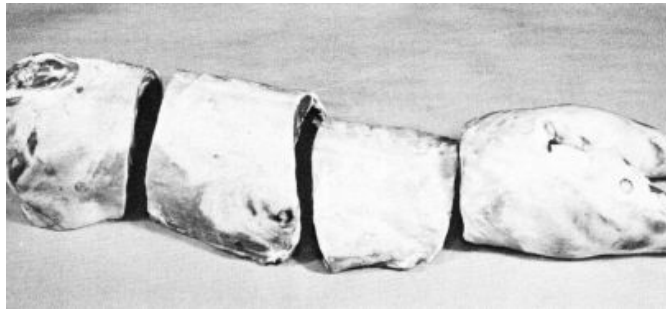
Figure 47.—Neck chops or slices.

The trimmed carcass is separated into four primal cuts, each with different characteristics (figs. 48 and 49). A cut between the fifth and sixth ribs removes the shoulder. Another cut between the 12th and 13th (last) rib separates the rib from the loin (the 13th rib remains in the loin). The loin and legs are separated just in front of the hipbones by cutting through the small of the back where the curve of the leg muscles blend into the loin. This is the cut being made in figure 48.



PN-5066

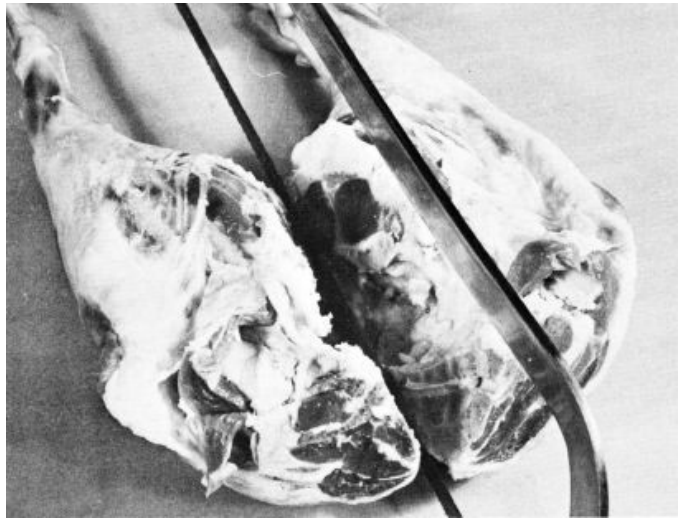
Figure 48.—Preparing four primal cuts.



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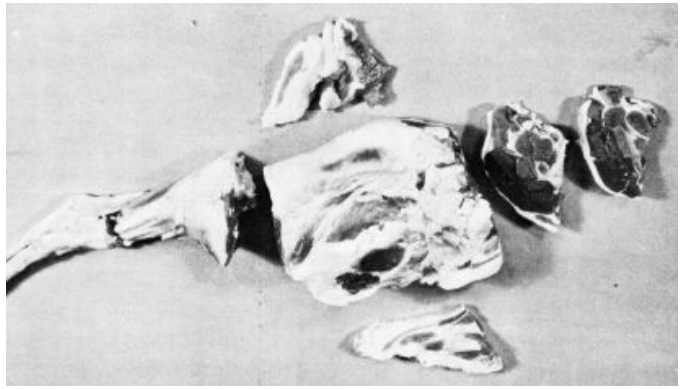
Figure 49.—Preparing four primal cuts.

Split the legs through the center of the backbone (fig. 50). Trim the flank and cod or udder fat off (fig. 51). Remove the backbone from the leg by making a saw cut approximately parallel to the split surface of the backbone and 1 inch below this surface (fig. 52). Saw approximately 1 inch deep, or until you feel a slight slippage when you cut through part of the hipbone.



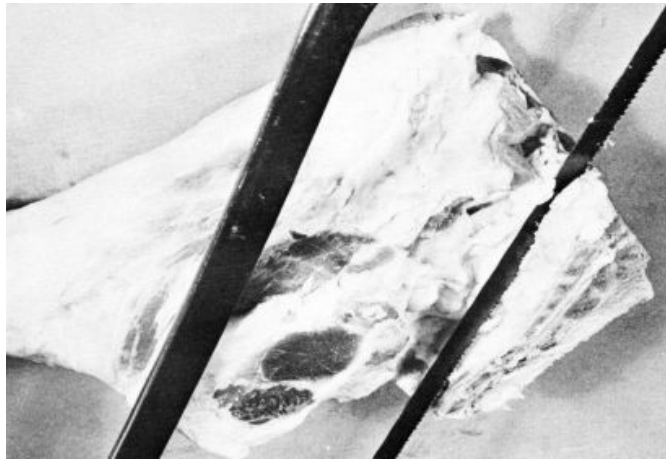
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Figure 50.—Splitting legs.



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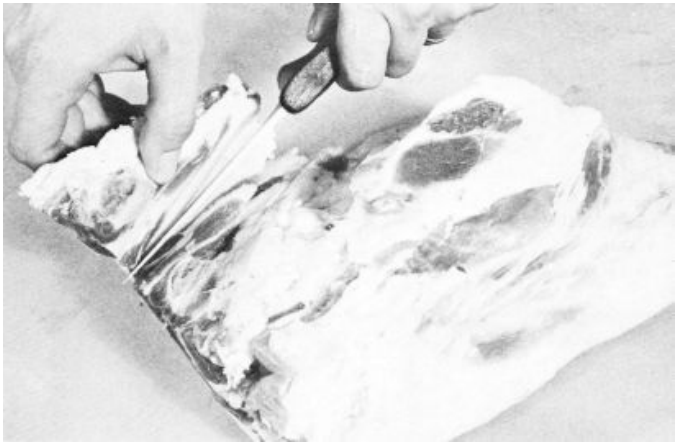
Figure 51.—Leg of lamb.



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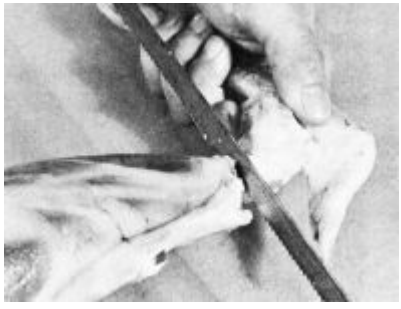
Figure 52.—Backbone removal.

Be careful not to saw all the way through the hipbone. Insert a knife into the saw cut, find the "slip" joint between the bones and cut underneath the backbone to complete its removal (fig. 53). Cut off the lower shank bones by sawing where the tendon enters the muscle (fig. 54).



PN-5071

Figure 53.—Backbone removal.

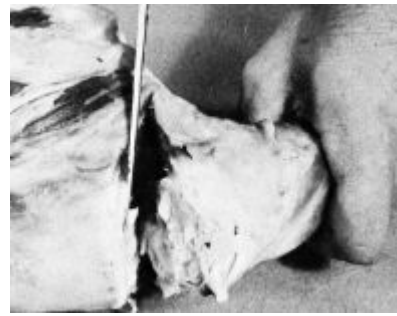


PN-5072

Figure 54.—Removing lower shank.

The leg may be further trimmed by cutting through the knee or “stifle” joint to remove the shank. This joint is located about halfway between where the muscles of the shank end and the muscles of the lower leg begin. Cut into the tissues over the bones until you locate the joint and work the knife

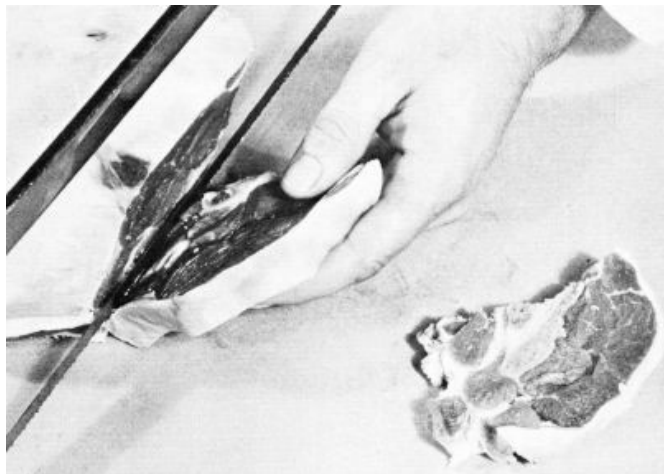
through it (fig. 55). Continue cutting straight across the heel of the leg.



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Figure 55.—Stifle joint.

Several sirloin chops may be removed by knife and saw cuts made parallel to the cut separating the leg from the loin (fig. 56).



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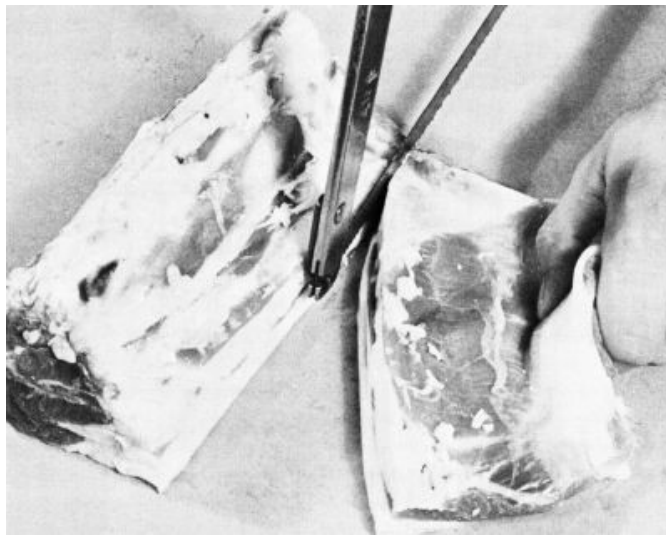
Figure 56.—Sirloin chops.

Split the loin through the center of the backbone and remove the flank about 1 inch from the loin "eye" (figs. 57 and 58).



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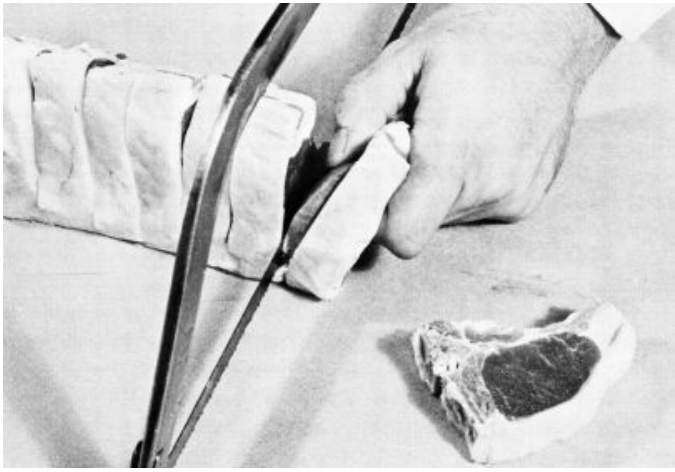
Figure 57.—Splitting loin.



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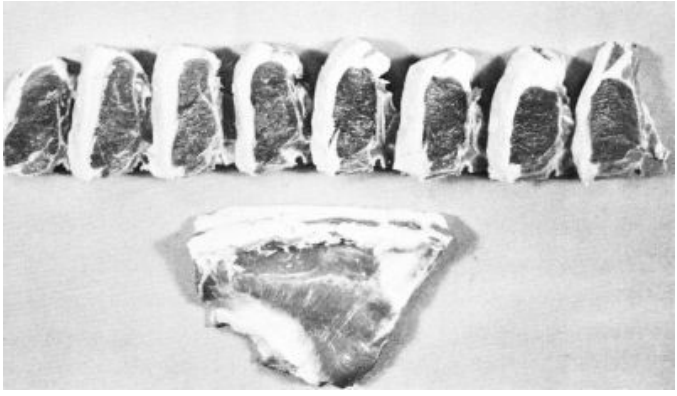
Figure 58.—Removing flank edge.

Loin chops are made by cutting perpendicular to the backbone (fig. 59). Usually chops are cut ¾ of an inch to an inch thick. Doubles or “English” loin chops are made from a loin which has not been split (fig. 60). The flank portion may be ground or made into stew.



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Figure 59.—Preparing loin chops.

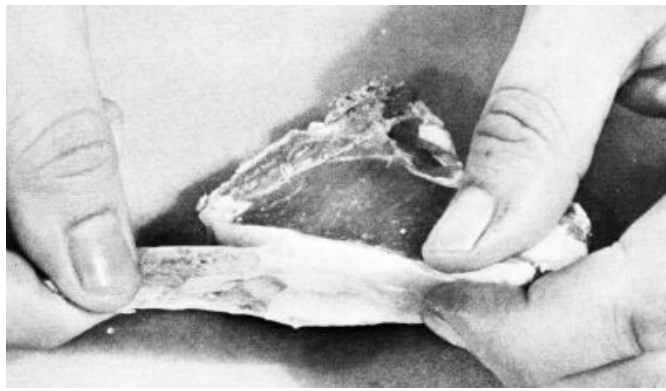


PN-5078

Figure 60.—Loin chops.

Remove the fell membrane from each sirloin, loin, and rib chop before cooking; the fell becomes

hard in frying. When the chop is cold the fell peels off easily; start peeling at the lower end of the chop (fig. 61).

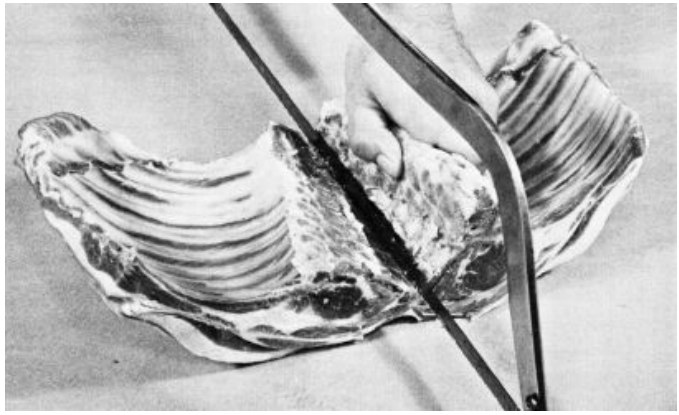


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Figure 61.—Removing fell membrane.

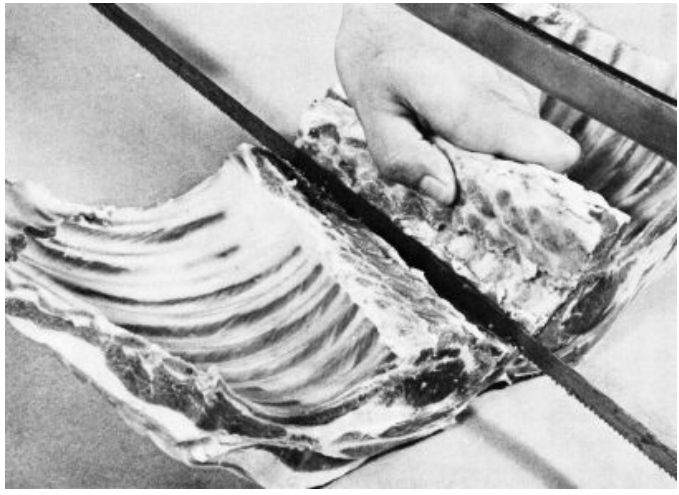
Leave the fell on the leg and shoulder roasts to lessen the evaporation of meat juices. Clean fell on roasts, chops, or stews will not affect flavor.

The rib should be split somewhat differently than the other primal cuts (figs. 62 and 63). The backbone is not split but is removed by cutting through the ribs along the ridge where they join the backbone. Continue cutting close to the backbone to separate one rib section. Repeat this cut along the opposite side of the backbone to separate it from the other rib section. Remove the breast portion by cutting approximately 2 inches from the rib “eye” (fig. 64).



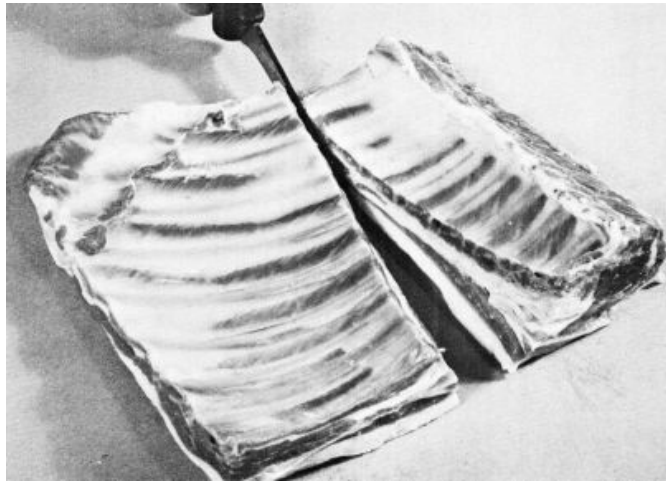
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Figure 62.—Splitting rib.



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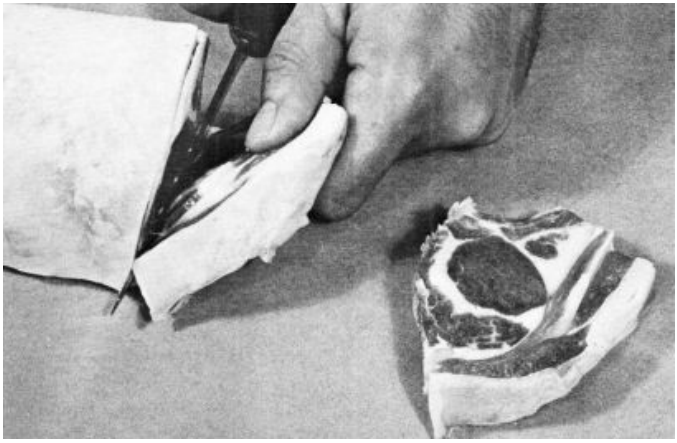
Figure 63.—Splitting rib.



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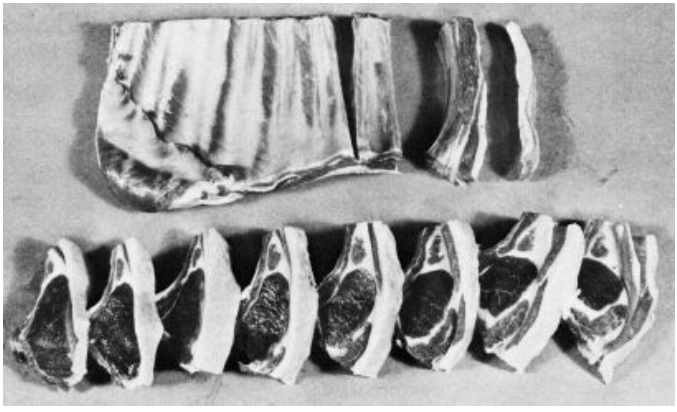
Figure 64.—Separating breast from rib.

Rib chops are easily made by cutting between the ribs (fig. 65). Remove the fell before cooking. The breast portion may be barbecued in one piece or made into riblets by cutting between the ribs (fig. 66).



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Figure 65.—Preparing rib chops.

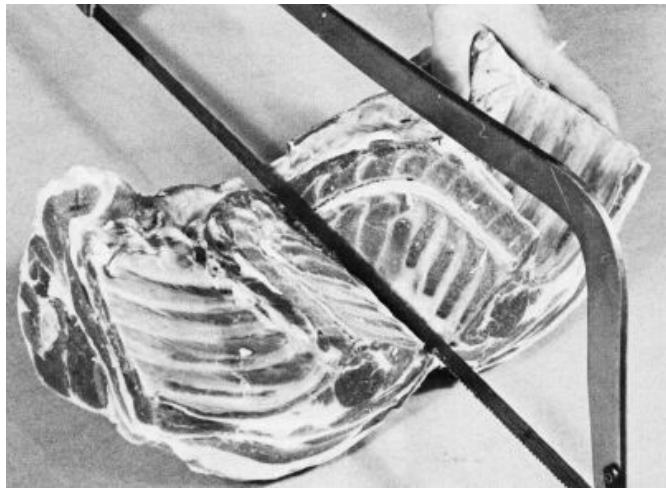


PN-5084

Figure 66.—Rib chops and breast.

After splitting, the shoulder may be roasted as is, made into chops, or boned and rolled to make a

more easily carved roast (figs. 67 and 68).



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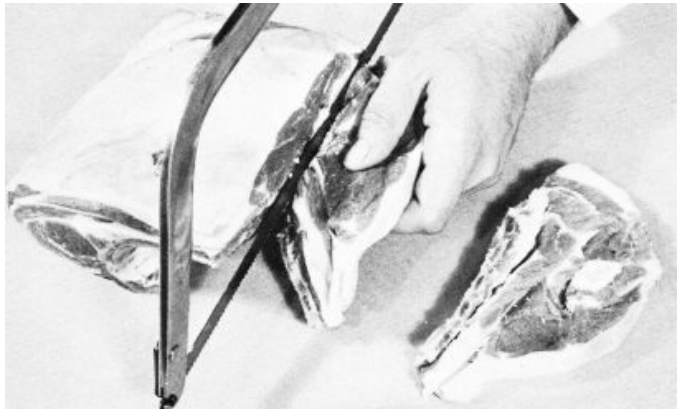
Figure 67.—Splitting shoulder.



PN-5086

Figure 68.—Shoulder chops and roasts.

Arm chops should be made first by cutting parallel to the surface made when the foreleg and breast were removed. Only two or three arm chops should be made (fig. 69). Blade chops are made by cutting between the ribs and sawing through the blade and backbone.

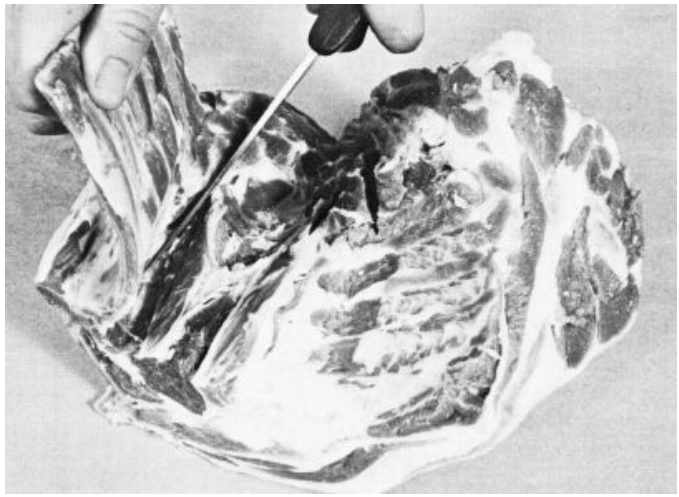


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Figure 69.—Preparing arm chops.

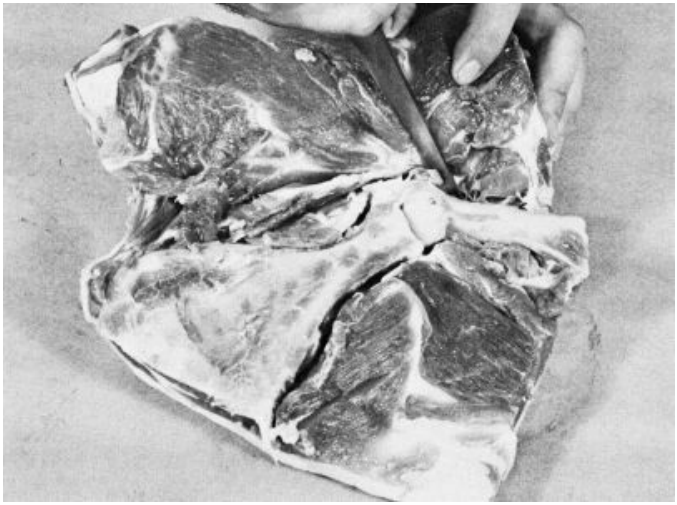
To prepare a boneless shoulder, first remove the ribs and backbone by cutting closely underneath the ribs following their curvature; then cutting along and over the backbone and neck vertebrae to remove them (fig. 70). Start at the rear surface and cut along the lower edge of the blade bone to lift the underlying muscles exposing the blade bone and arm bone (fig. 71). Cut along the edges of these bones and then lift the over-lying meat and cut close to the top surface of these bones to remove them (fig. 72). The blade bone has a ridge which runs close to and nearly parallel to its shorter edge. Try not to cut

through the skin surface when cutting over this ridge. The boneless meat should be rolled so that the shoulder “eye” is lengthwise in the roast. The shoulder “eye” is located under the flat surface of the shoulder blade. Roll the meat as tightly as possible, then tie securely with strong twine or cord (fig. 68). The boneless shoulder may be made into a pocket roast and stuffed with ground lamb or other dressing. The edges of the meat are laced together after stuffing.



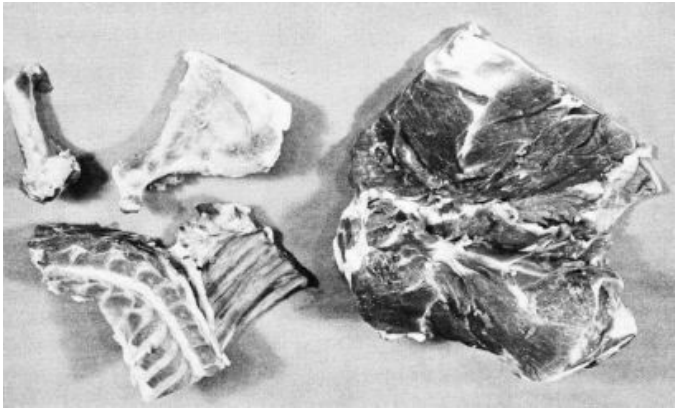
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Figure 70.—Boning shoulder.



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Figure 71.—Boning shoulder.

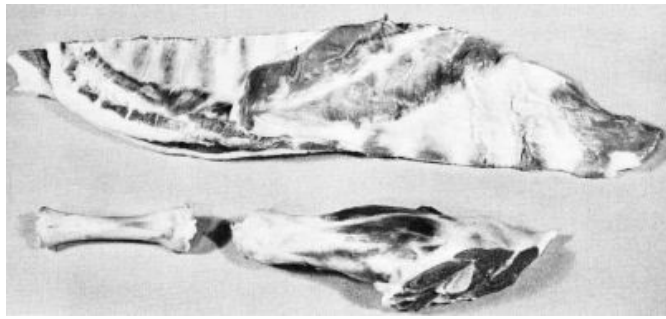


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Figure 72.—Boned shoulder.

The lower shank bones of the foreleg are removed by cutting or sawing through the joint. The foreleg and hind shank are often barbecued, cut into stew, or boned, and the meat ground.

The breast can be cut into stew, boned and rolled, ground, or made into a pocket roast by cutting under and close to the ribs to form a pocket which can be stuffed. The edges are then laced together (fig. 73).



PN-5091

Figure 73.—Breast and foreshank.

Wrapping

Immediately after chilling and cutting, meat *must be* properly wrapped, quickly frozen, and stored at 0° F or lower until needed. Proper wrapping is essential to maintain meat quality; therefore, one should:

- Use moisture-vapor proof wrap such as heavily waxed freezer paper or specifically laminated paper.
- Prepare convenient family-sized packages.
- Wrap meat closely, eliminating as much air

as possible.

- Improper wrapping will allow air to enter and result in “freezer burn” and rancidity.
- Use a proper wrapping procedure (fig. 74).
- Label and date each package properly.

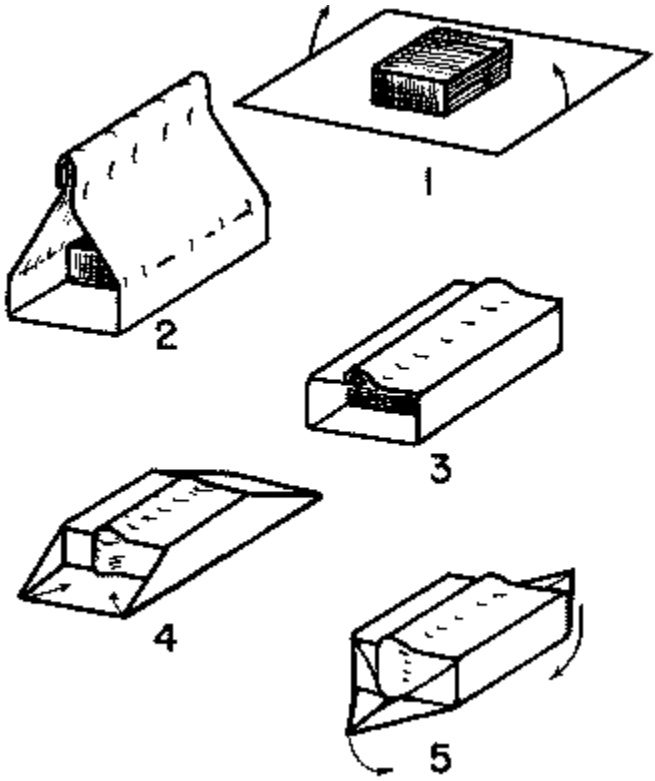


Figure 74.—Wrapping procedure.

FREEZING AND FROZEN STORAGE

When freezing large quantities of meat, it is best to use a commercial establishment for fast freezing. Since a lamb carcass will yield only 70 to 75 percent usable retail cuts or about 38 pounds from a 50 pound lamb carcass, the home freezer will adequately handle this amount. When using the home freezer be sure to:

- Clean and defrost freezer.
- Freeze meat at -10° or lower.
- Freeze only the amount of meat that will freeze in 24 hours.
- Allow ample air circulation by not overpacking the freezer.
- In the freezer maintain 0° F or less for storage.

Remember, proper wrapping and freezing does not improve quality but maintains original quality. It is safe to refreeze meat that has been kept below 40° F during thawing. However, refreezing is not usually recommended because there is some loss of meat quality.

Lamb cuts should be utilized within 6 to 9 months after freezing; ground and stew lamb within 3 to 4 months. Longer storage results in lowered quality.

MEAT COOKERY

Tender cuts of meat are best cooked with dry heat such as broiling, roasting, and panbroiling. Less tender cuts of meat are tenderized by cooking with *moist* heat. Connective tissue is softened and tenderized by cooking slowly in moisture.

Temperature control is very important in meat cookery. Meat loses moisture, fat, and other volatile substances during cooking. However, some of the meat juices and fat may be retained in the pan drippings.

Cooking losses can be controlled by controlling the oven cooking temperature and final internal temperature of the meat. Shrinkage is increased when hot oven temperatures are used for cooking and when the meat is cooked to a higher internal temperature.

The meat thermometer is the most accurate guide to the degree of doneness of meat. Cooking time can be used as a guide to the degree of doneness, but this may be influenced by fat and moisture content, and shape or size of the cut.

Fresh lamb is usually cooked to an internal temperature of 170 to 180° F (77 to 82° C). Chops or roasts from the leg, loin, back, or shoulder are suited to dry heat cookery methods such as broiling or roasting. Other cuts from the lamb carcass such as stew meat, neck slices, lamb riblets, and shank are best suited to moist cookery methods such as braising. Lamb should be served hot and not allowed to cool before serving.

More detailed instructions for cooking procedures can be obtained from the following sources:

USDA Beef Slaughtering Bulletin, FB 2209

USDA Lamb in Family Meals, HG 124

Lessons on Meat National Live Stock and Meat Board 36 South Wabash Avenue, Chicago, 111. 60603

PRESERVING LAMB PELTS

Select pelts for preserving which are free of numerous holes and which have relatively clean fleece. The day the pelt is removed, wash the fleece thoroughly with cold water. High pressure water can be used if the fleece is extremely dirty. Remove any large pieces of connective tissue or flesh adhering to the pelt. In a cool, dry shelter or building, spread the pelt, wool down, on the floor and cover with an even layer of salt. A small amount of alum can be added to the salt.

Take care to put salt on all the edges. Salted pelts may be piled on top of one another, all pelts fleece down. Curing time should be 15 to 30 days. Check the salt covering weekly. After curing, the pelt can be scraped to remove connective tissue or flesh. Neatsfoot oil can be rubbed into the pelt to make it soft and flexible. The fleece can be combed and brushed.

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