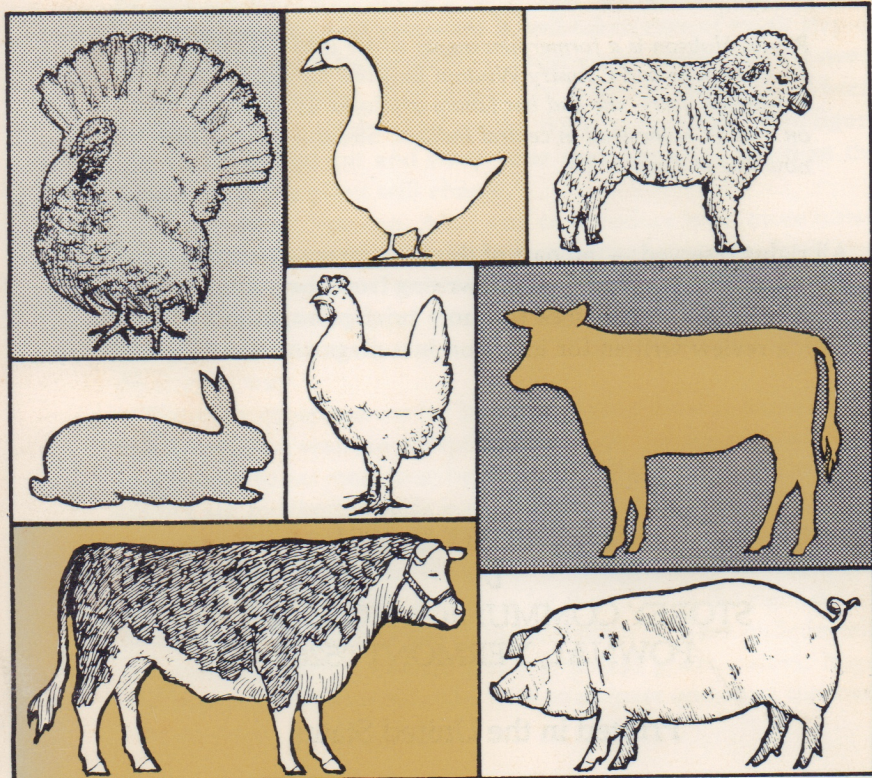


Butchering Livestock at Home

By Phyllis Hobson



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Butchering Livestock at Home

by Phyllis Hobson

Congratulations! You are about to embark on one of the most challenging and rewarding aspects of producing your own food.

If you are ambitious enough to raise livestock, there are several reasons why you want to butcher your meat at home. You want to be sure the meat you put in your freezer is the meat you spent all that time raising. And you want it well taken care of every step of the way. You want better meat — sugar-cured hams with the sweet flavor that only long, slow curing can produce, lean ground beef, and tender, juicy steaks. You would like to save money. You figure you can skin and cut and wrap your meat for a lot less than the local butchering plant will charge.

You are right. You can. Also, you can produce meat more suited to your taste than any professional butcher can mass-produce. You are the only one who knows just how long your beef should be aged or how much pepper you like in your sausage. And you are the only one who really cares enough to go to the extra trouble to do it your way.

There are other reasons for butchering your meat at home. More and more, you want to accept responsibility for your own life. If you choose to eat meat, maybe you are ready to accept the responsibility for butchering it. It is a satisfying decision.

There is work involved, but butchering meat at home is not difficult. Anyone can do it. All it takes is an animal to butcher, a certain amount of strength (but not a lot if you have the right equipment), a few tools, and the right environment. This bulletin tells you how to butcher rabbits, poultry, sheep, goats, calves, hogs, and beef cattle. It also tells you how to prepare and store the meat you produce.

Getting Ready

Let's start with the animal. Select the best you have or can get. It is disappointing to spend the time and energy required to butcher an animal, then find the quality of the meat is less than you expected. If you want good meat you have to start with a healthy, well-fed, good-looking animal. It should be bright-eyed, glossy-coated (or feathered), and in top shape for its type.

Pamper your animal for a week or two before butchering. Everything you have heard about contented cows goes for hogs and sheep, too. If possible, keep the animal in a special pen. Keep the stall clean and comfortable. Provide the best feed and hay. Keep the water fresh; you might even put a little molasses in it.

All this pampering is not nonsense. It really makes for better-tasting, more nutritious meat. An animal that is relaxed and contented before butchering has all its chemicals in balance. An animal that is agitated or uncomfortable will have its life-protecting chemicals flowing. The result will be tougher, off-flavor meat that will not keep as well.

The day before you plan to butcher, take out all the grain and hay to give the animal's stomach time to empty. It is easier by far, especially for a beginner, to butcher an animal that is as cleaned out as possible. Keep the water bucket full, though, and put in an extra dollop of molasses so the animal will drink more.

Next, select the right environment. There are only two absolutes. The butchering area must be clean and cold. Within those limitations, you can adapt almost any location. A refrigerated, antiseptically clean room is ideal, but a shed with a freshly scrubbed table is fine. If the weather is right, you can make do with a sturdy tree limb for hoisting the larger animals and a clean tree stump for cutting.

A cold temperature is important. The carcass must be chilled quickly and kept cold. All meat, except pork and veal, must be aged up to a week or two at thirty-two to thirty-five degrees F.

If you live in a cold climate, you can provide the proper temperature by butchering large animals in late fall when the temperature has dropped to just above freezing and is likely to stay there for at least a week. Small animals and poultry can be

butchered at any time because they can be chilled and aged in a refrigerator. In warmer climates, or in an emergency, large animals can be cut into quarters and chilled in a barrel of ice or a spare refrigerator.

In addition to cold temperatures, you will need some equipment and materials. You will not need all of these tools for every butchering job. If you are butchering a chicken, you obviously will not need a gun or hoist. But if you are going to butcher a variety of animals, this is the minimum equipment you will need.

- .22 rifle or a .38 caliber pistol and ammunition
- Hooks (or a chain or rope) for hanging the animal
- Block and tackle or a hoist for large animals
- Good, sharp butcher knives (as many as you can assemble)
- Knife sharpener
- Hardwood (or hard plastic) cutting board or surface
- Meat grinder for making ground meat or sausage
- Meat saw
- Meat cleaver
- Large kettle, tub, or barrel for collecting wastes
- Empty gallon-size plastic bottle for chickens or a killing cone
- Hot water for scalding chickens or hogs
- Lots of clean, cold water
- Plastic apron
- Thin plastic gloves
- Plastic or newspapers to protect floor, if necessary

You can make substitutions in order to make do with what you have or can borrow. You do not need a fancy cutting board, for instance; an old kitchen table will do. If you cannot rent or borrow a meat saw or meat cleaver, you can substitute a clean, well-sharpened hacksaw from your workshop.

The meat grinder can be a hand-cranked food chopper with a meat blade, an attachment to your kitchen mixer, or a food processor.

Start with clean, soap-and-water-scrubbed tools and keep a bucket of hot water nearby to clean the knives as you go along. Keep the knife sharpener handy, too. Knives get dull quickly when they keep bumping into bones. There is nothing more frustrating than a knife that will not cut when you need it.

Speaking of frustration, be sure you have everything ready

before you start. You do not want to kill or stun your animal, then discover you have no way to hang it. Make a list of the tools you will need for your job, then assemble them, and check your list before you start.

Now comes the hardest part of the whole project for most of us. If you like animals, you found it is fun to raise them. The end result — a freezer full of meat — is rewarding. The skinning and cutting operations are not difficult. But even experienced hunters sometimes have difficulty killing an animal they know.

The idea is to make it as quick and as painless as possible, for your sake, for the sake of the animal, and for the sake of the meat. Besides, if the kill is painless, you will not dread it so much next time.

The experts tell you to stun, not shoot, the animal; but those of us who are amateurs find it is far easier and more humane to shoot. Stunning an animal by hitting it over the head is a method best left to the more experienced. It is amazingly difficult to knock out an animal that way — even a small rabbit.

Which is where you should start — with a rabbit. It is a good idea to think small and work your way up with butchering. First butcher a rabbit, then a chicken, then a lamb, a calf, a hog, and finally a beef.

Which is exactly what we are going to do.

Rabbits

Rabbits provide high-quality protein at low cost and in a short time. A well-fed rabbit will reach frying size while it is still young and tender. It should be butchered between three months and six months of age. The weight at this age will depend on breed and sex, but the meat should be about half the live weight of the rabbit.

Domestic rabbit meat tastes much like chicken, which the cut-up pieces resemble. Rabbit meat is a little drier, practically fat free, and low in sodium.

Usually rabbits are kept in separate cages, so there is no need to pen the animal before butchering. About twenty-four hours before butchering, take away all grain and hay, but supply plenty of water.

Rabbits can be butchered in any weather, and the meat chilled in the refrigerator. One of the simplest ways to provide a clean environment is to kill and skin the animal outside, then complete the cleaning and cutting operations at the kitchen counter.

Start by breaking the animal's neck. Hold the hind legs about



To kill a rabbit, hold the hind legs with one hand while bending the rabbit's head up and back as far as possible as you pull the body down.

waist high with the left hand (or the right hand, if you are left-handed) and hold the rabbit's head firmly with the right hand. Bend the head up and back as far as possible while pulling the body down. Pull with a firm, steady motion until you feel the neck break, then quickly cut off the head with a sharp knife or an ax.

Hang the carcass by the hind feet to allow it to bleed thoroughly. Meat that is not bled quickly and thoroughly after killing will not keep well. Actually, a rabbit bleeds out quickly and can be held upside down for a few minutes, then nailed to a table or board for the skinning operation. However, it is a good idea to get used to hanging since it is a procedure used with larger animals.

To hang the rabbit, insert small hanging hooks or a rope or chain through incisions made between the bone and tendon just above the hocks. It helps to cut off the hind feet and pull back the skin from this area before making the incision with a knife.

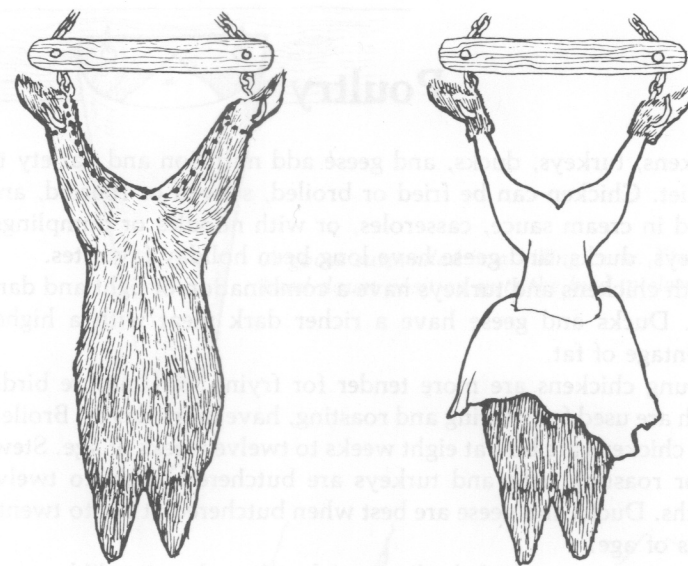
When the rabbit has bled out, cut off the tail and front feet. Slit the skin from each hind leg to the crotch and from each front leg to the neck. Do not cut down the middle of the belly.

Beginning at the top of the hind legs, fold the skin over and downward. Gently pull it down, using a knife to cut around the vent and to trim off any fat or tissue. Peel the skin off in one piece as you would a tight sock. The skin will come off inside out.

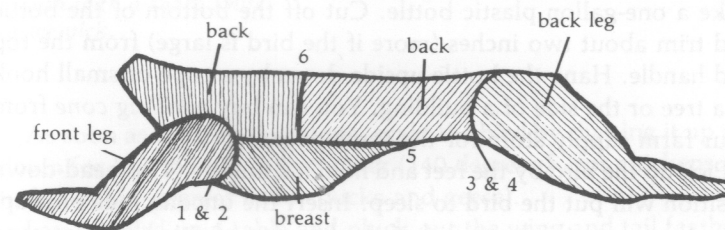
Take the carcass down, rinse it in running water to remove any blood or hair, and place it on a cutting board or table. With a sharp knife, slit the belly from the anus to the breastbone, being careful not to puncture the bladder or intestines. Cut out the anus to free the intestines, then reach in and pull out the entrails. In them you will find the liver. Attached to it is the gall bladder, a sac of dark green liquid that will give a bitter taste to anything it touches. Cut or pull it free from the liver without breaking the sac. Discard the gall bladder and the entrails, saving only the liver. Reach up into the chest cavity and pull out the heart and lungs. Discard the lungs. Wash and refrigerate the heart and liver.

Wash the carcass quickly in cold, running water. Do not soak. Drain well on paper towels. Cover to keep the meat from drying out, and refrigerate three to five days to age the meat. This not only improves the flavor, it makes the meat more tender.

When it is aged, rabbit meat can be roasted or barbecued whole or cut up and fried or braised. The meat can be stored by freezing, canning, or curing.



Insert small hanging hooks through incisions made between the bone and tendon just above the hocks. Allow the rabbit to bleed out into a plastic garbage bag. Then pull the skin down the carcass the way you would peel off a tight sock.



*Cuts 1 & 2: Cut off both front legs at the shoulder joints.
Cuts 3 & 4: Cut away the hind legs at the hip joints.
Cut 5: Cut through the ribs to separate the breast section.
Cut 6: Cut the back piece in half.*

Poultry

Chickens, turkeys, ducks, and geese add nutrition and variety to the diet. Chicken can be fried or broiled, stewed or roasted, and served in cream sauce, casseroles, or with noodles or dumplings. Turkeys, ducks, and geese have long been holiday favorites.

Both chickens and turkeys have a combination of light and dark meat. Ducks and geese have a richer dark meat with a higher percentage of fat.

Young chickens are more tender for frying, but mature birds, which are used for stewing and roasting, have more flavor. Broiler-fryer chickens are best at eight weeks to twelve weeks of age. Stewing or roasting hens and turkeys are butchered at six to twelve months. Ducks and geese are best when butchered at ten to twenty weeks of age.

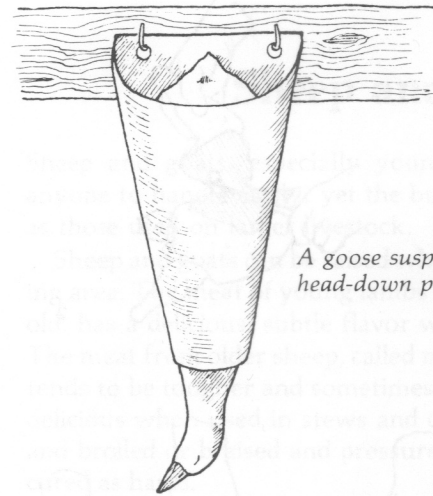
About 50 percent of the live weight of poultry is edible meat. With younger birds, the percentage is lower because they have a higher ratio of bone to meat than do mature birds.

Poultry should be penned up and denied grain for twenty-four hours before butchering in order to empty the crop and make cleaning easier. Give the bird plenty of water. Geese and ducks often are penned up four to six weeks before killing in order to fatten them and improve the flavor of the meat.

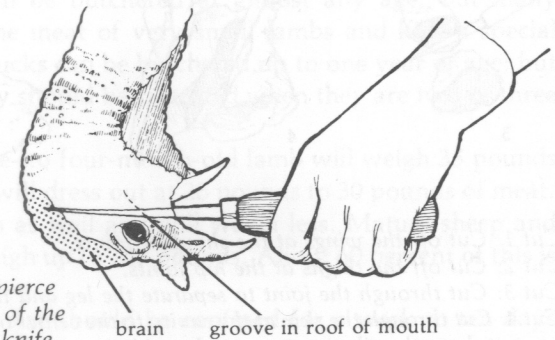
Here is a simple way to kill chickens, small turkeys, and ducks. Take a one-gallon plastic bottle. Cut off the bottom of the bottle and trim about two inches (more if the bird is large) from the top and handle. Hang the bottle upside down by a rope or small hook to a tree or the side of a building. You can buy a *killing cone* from your farm supply store for the same purpose.

Pick up the bird by the feet and hold it a minute. This head-down position will put the bird to sleep. Insert the unconscious bird upside down into the large end of the hanging plastic bottle or cone and pull the head through the pouring end. Mature geese and turkeys too large to fit one-gallon jugs can be hung by the feet or in a large killing cone.

Open the bird's beak and pierce the back of the roof of the mouth, into the brain, with a sharp knife or ice pick. Immediately pull the head down and cut it off at the neck. Let the carcass bleed out.



A goose suspended in a killing cone. The head-down position puts the bird to sleep.

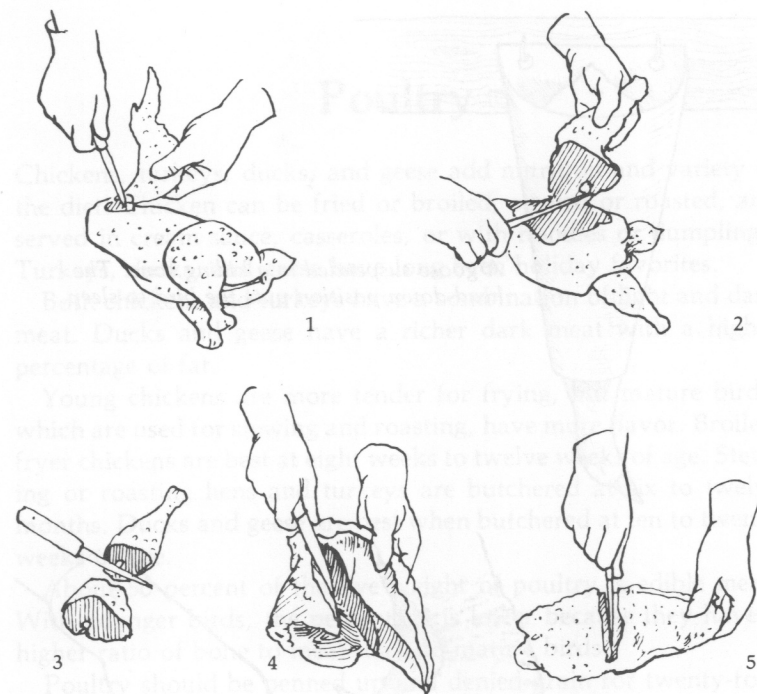


Open the beak and pierce the back of the roof of the mouth with a sharp knife or ice pick.

As soon as the bleeding stops, scald the bird by dipping it up and down for one minute in hot water (140 degrees F. for chickens and turkeys, 160 degrees F. for ducks and geese).

Lay the bird on a table and pluck out the wing and tail feathers, then the rest of the feathers. On older birds, singe off any hairs over an open flame. Cut off the feet and wash the carcass thoroughly in running water.

Lay the bird on its back and cut off the tail, including the oil sac just above it. Carefully cut around the vent and cut a slit just through the skin from the vent to the breastbone. Reach in and remove the entrails.



Cut 1: Cut off the wings at the shoulder joints.

Cut 2: Cut off the thighs at the hip joints.

Cut 3: Cut through the joint to separate the leg and thigh.

Cut 4: Cut through the skin at the cavity to the center of the back. Then cut along the ribs to separate the white meat of the breast from bony back pieces.

Cut 5: Cut the breast into two pieces.

Carefully remove the bile sac from the liver, and clean and peel the gizzard. Cut off the neck and pull out the crop and windpipe from the neck opening. Reach in and remove the heart and lungs from the breast cavity. Wash and refrigerate the neck, liver, heart, and gizzard. Discard the rest.

Wash the carcass, inside and out, in cold water. Cover and refrigerate forty-eight hours to age and tenderize the meat. Poultry can then be prepared for the table or stored by freezing, canning, or curing — whole or cut up.

Sheep and Goats

Sheep and goats, especially young ones, are small enough for anyone to handle easily; yet the butchering methods are the same as those used on larger livestock.

Sheep and goats can be raised where there is little, or poor, grazing area. The meat of young lambs and kids, three to four months old, has a delicious, subtle flavor when broiled, fried, or roasted. The meat from older sheep, called mutton, or goats, called chevon, tends to be tougher and sometimes needs longer cooking, but it is delicious when used in stews and casseroles, ground into patties, and broiled or braised and pressure-cooked. The hind legs can be cured as hams.

The animals can be butchered at almost any age, but many people consider the meat of very small lambs and kids a special treat. Rams and bucks can be butchered up to one year of age; but for best flavor they should be castrated when they are two or three months old.

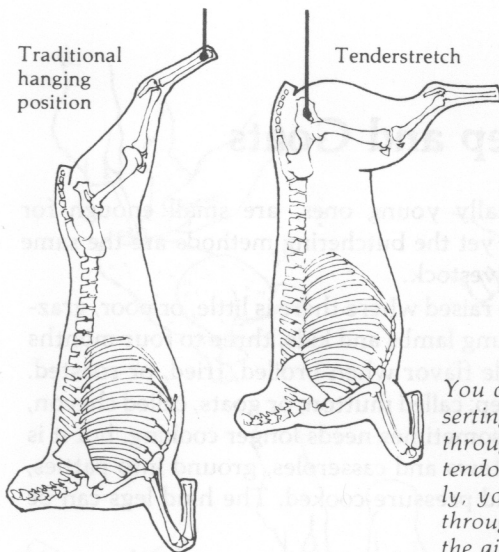
A well-fed, three- to four-month-old lamb will weigh 35 pounds to 50 pounds and will dress out at 20 pounds to 30 pounds of meat. Kids do not fatten as well and will weigh less. Mature sheep and large goats will weigh up to 100 pounds. About 60 percent of this is edible meat.

Animals of any size should be confined for a week to ten days before butchering. During this time, keep them calm and well-fed. Mature animals should be starved, but given plenty of water, for twenty-four hours before butchering. Animals less than three months old should have feed withheld for no more than six to eight hours.

Sheep and goats are excitable animals and should be slaughtered when they are preoccupied. Also, since their skulls are fortified for butting, it is difficult to stun or shoot a sheep or goat on top of the head. It is best to shoot it in the brain through the back of the head.

To distract the animal and get it in position for shooting, place a small pan of grain on the ground before it. When the animal's head is lowered to the pan, aim for the spot just under the ear.

Immediately after it drops, slit the throat and hang the carcass by the hind legs. Traditionally this is done by cutting a slit between the tendon and bone just above the hocks and inserting a hanging hook



You can hang the animal by inserting a hanging hook or rope through an incision between the tendon and bone (left). Alternatively, you can insert a hanging hook through the obturator foramen of the aitchbone (right).

or rope in each slit. However, Paula Simmons, in *Garden Way's Raising Sheep the Modern Way*, recommends a new method of hanging the carcass by the aitchbone (pelvic bone) to produce a more tender meat. This method may be used with any of the larger animals.

With the animal hanging, cut off the head, tail, and all four feet to the hocks. Cut around the anus and vagina or penis area; then make a slit, just through the hide, between the two front legs and between the two hind legs. From the center of these two cuts, slit down the middle of the belly.

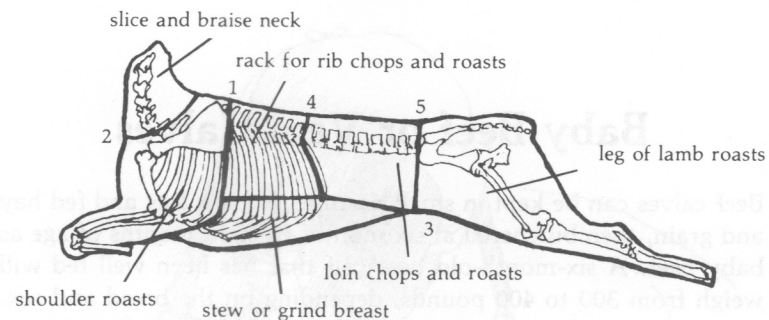
Starting at the hind legs, skin the animal by pulling back the skin with one hand while using the knife to cut it loose with the other.

As soon as the skin is removed, wash off the carcass with a hose or damp cloth. Using a clean knife, make a slit down the abdomen from the pelvis to the breastbone, taking care not to puncture the stomach or intestines. Cut around the anus and tie it off with a piece of twine to keep the contents from contaminating the meat. Reach inside and pull the anus inside. Gently pull out the entrails into a container, cutting them loose as you go.

Wash out the cavity with a hose and let it hang in a cold place (thirty-two to thirty-five degrees F.) for five to seven days.

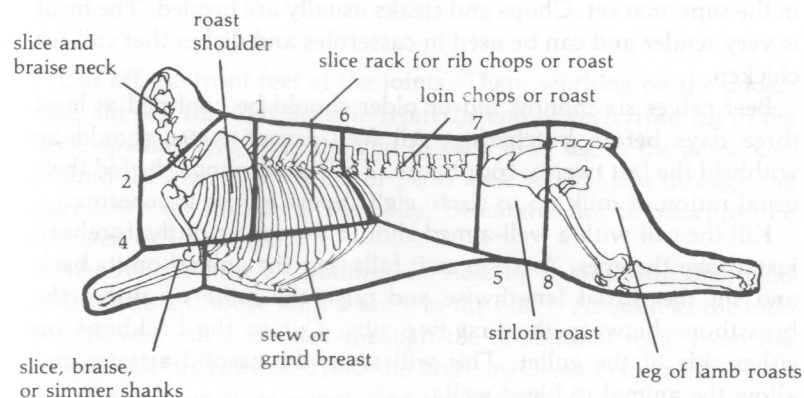
Lambs and kids often are barbecued or baked whole. Larger animals can be cut into roasts and chops, and the scraps ground for patties.

Lambs and Kids



- Cut 1: Saw off both shoulders between the fifth and sixth ribs.
- Cut 2: Cut off the neck flush with shoulder.
- Cut 3: Remove the breast with a saw.
- Cut 4: Cut between the last two ribs. Saw through the backbone.
- Cut 5: Separate the loin from the leg at the small of the back. Saw through the backbone.

Mutton and Chevon



- Cut 1: Saw across the carcass between the fifth and sixth ribs.
- Cut 2: Cut off the neck even with shoulder.
- Cut 3: Separate the right and left shoulders by sawing through backbone.
- Cut 4: Saw off the shanks.
- Cut 5: Saw off breast piece.
- Cut 6: Cut between the last two ribs. Separate the two pieces by cutting through the backbone.
- Cut 7: Cut and saw through at the small of the back. Split the loin by sawing through the backbone.
- Cut 8: Cut away the sirloin, leaving it in one piece.

Baby Beef or Veal Calves

Beef calves can be kept in small pastures or barn lots and fed hay and grain, then butchered at six months to eight months of age as baby beef. A six-month-old beef calf that has been well fed will weigh from 300 to 400 pounds, depending on the breed and sex. Approximately 55 to 60 percent of this is edible meat.

Newborn calves also can be set aside as veal calves, kept confined to a stall, and fed nothing but milk for eight to ten weeks. A well-fed veal calf will weigh up to 180 pounds at this age and will yield about 100 pounds of meat.

Baby beef is a lighter-colored, milder-flavored more tender form of beef. The steaks and roasts are smaller. Baby beef may be broiled, pan-fried, or roasted.

Veal is a light, delicate meat that is expensive and difficult to find in the supermarket. Chops and steaks usually are broiled. The meat is very tender and can be used in casseroles and dishes that call for chicken.

Beef calves six months old or older should be confined at least three days before butchering. All feed except water should be withheld the last twenty-four hours. Veal calves should be fed their usual ration of milk up to six to eight hours before butchering.

Kill the calf with a well-aimed shot in the center of the forehead just above the eyes. As soon as it falls, lay the animal on its back and slit the throat lengthwise and push the knife up under the breastbone between the first two ribs. Cut to the backbone on either side of the gullet. This will sever the carotid arteries and allow the animal to bleed well.

Hang the carcass by inserting hooks or a sturdy rope through incisions made just above the hocks or in the pelvic bone on each side. Using a hoist or rope, pull the animal up to a comfortable working height. (This procedure is the same as for sheep; see pp.11-12.)

When it has finished bleeding, skin the head by cutting across the top and down each side of the face to the corners of the mouth. Skin the face, then the back of the head. Cut off the head. (To use the head, see p.29 on using the by-products.)



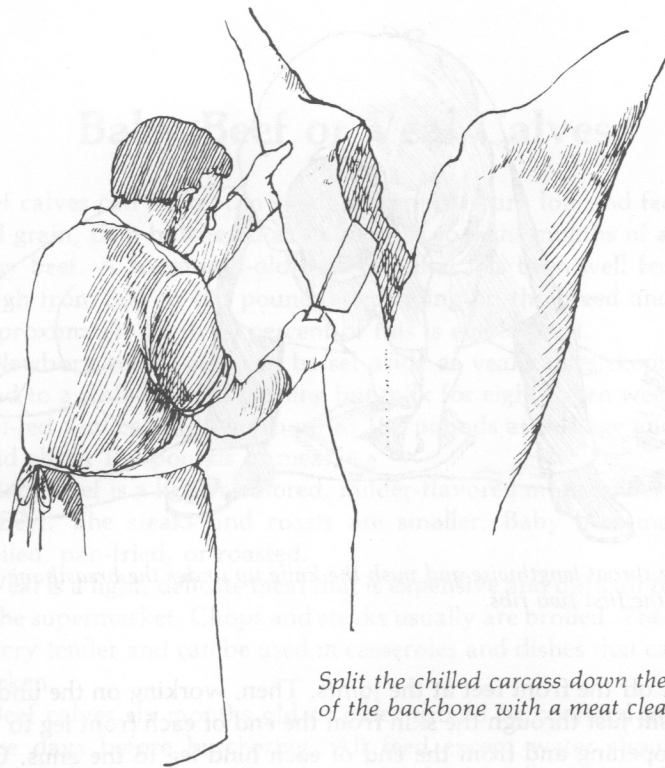
Slit the throat lengthwise and push the knife up under the breastbone between the first two ribs.

Cut off the front feet at the joints. Then, working on the underside, slit just through the skin from the end of each front leg to the neck opening and from the end of each hind leg to the anus. Cut around the anus and vagina or penis area and slit just through the skin down the middle of the belly. Be careful not to puncture the stomach or intestines.

Remove the hide by pulling and holding it taut with one hand while cutting it loose with a knife in the other. As soon as the hide is removed, cut a slit just through the abdominal wall, from the anus to the breastbone. Hold the knife inside and cut from the inside out to keep from puncturing the entrails.

Prepare for the removal of the entrails by working out the gullet and windpipe as far as possible through the slit you made in the throat. Tie off the gullet with a piece of twine. If you are butchering a heifer calf, reach into the abdominal cavity and tie off the vagina and anus together. On a male calf, tie off the anus, then reach in and tie off the urethra (the tube to the bladder) and remove the exterior genitals.

Work the intestines free of the backbone carefully cutting it loose with a knife. Ease the anus inside through the opening you made.



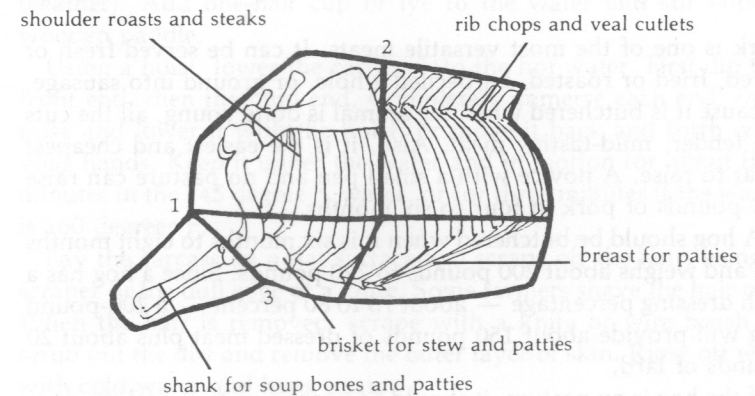
Split the chilled carcass down the center of the backbone with a meat cleaver.

Let the entrails drop down into a container, cutting away any tissue holding them.

Hose off the carcass inside and out. Chill the whole carcass for twenty-four hours. Baby beef should hang another four or five days for aging, but veal calves should be cut, without aging, as soon as they are chilled to the bone.

To cut the meat, first split the carcass down the center of the backbone with a meat cleaver or saw. Cut each side into two quarters by cutting between the last two ribs. This will leave twelve ribs on the front quarter and one rib on the hind quarter. Use a saw to cut through the backbone. Lay each quarter on a cutting table and cut as the illustrations show.

Front Quarter

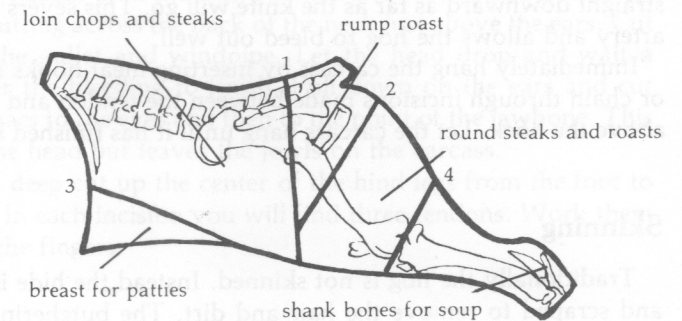


Cut 1: Saw through the quarter lengthwise, beginning just above the shank and cutting to the center.

Cut 2: Cut all the way across between the fifth and sixth ribs. Saw through the backbone.

Cut 3: Saw off the shank at the joint.

Hind Quarter



Cut 1: Cut across at the socket of the hip joint. Start with a knife, then finish with a saw.

Cut 2: Separate the rump from the round with a knife and saw.

Cut 3: Cut away the breast.

Cut 4: Saw off the shank. Cut through the meat, down along the bone, then saw through the joint.

Hogs

Pork is one of the most versatile meats. It can be served fresh or cured, fried or roasted, barbecued whole, or ground into sausage. Because it is butchered when the animal is quite young, all the cuts are tender, mild-tasting meat. Also, it is the easiest and cheapest meat to raise. A novice with a small pen and no pasture can raise 150 pounds of pork in four to six months.

A hog should be butchered when it is six months to eight months old and weighs about 200 pounds to 220 pounds. Since a hog has a high dressing percentage — about 75 to 80 percent — a 200-pound hog will provide about 150 pounds of dressed meat plus about 20 pounds of lard.

If the hog is on pasture, it should be penned up two or three days before butchering. Take away all feed the last twenty-four hours, but offer plenty of water.

With the animal still penned up, stun it by shooting it in the center of the forehead at point-blank range. It should drop instantly. When it does, immediately turn the animal over on its back and stretch the neck out by forcing the top of the nose to the ground. Working from the head and using a sharp, long-bladed knife, slit through the skin just above the breastbone. Work the knife downward until it slips back under the breastbone. Then cut straight downward as far as the knife will go. This severs the main artery and allows the hog to bleed out well.

Immediately hang the carcass by inserting meat hooks or a rope or chain through incisions made between the tendon and the bone above the hock. Let the carcass hang until it has finished bleeding.

Skinning

Traditionally the hog is not skinned. Instead the hide is scalded and scraped to remove the hair and dirt. The butchering is then completed with the skin on. When cured, this skin becomes the rind on hams and bacon.

Scalding can be done in any clean container large enough to hold at least half of the carcass at a time. A metal livestock watering tank is ideal because it will hold the entire carcass; but a fifty-gallon barrel can be used.

Place the container under the hanging carcass and fill it half full with hot water (145 degrees F. in warm weather, 160 degrees in cold weather). Add one-half cup of lye to the water and stir with a wooden paddle.

Using a hoist, lower the carcass into the hot water. First dip the front end, then the hind end. Completely immerse each end, then raise and lower it with the hoist, or move it back and forth with your hands. Keep it under the water and in motion for about five minutes in the 145 degree F. water, or for three minutes if the water is 160 degrees F.

Lay the carcass on a flat surface and scrape off the hair, using a scraper or the dull edge of a knife. Some farmers shave the hair off. When the hair is removed, scrape with a knife or wire brush to scrub out the dirt and remove the outer layer of skin. Rinse off well with cold water and hang again.

If you think all that scalding and scraping sounds like a lot of work, you are right. It is. It also is unnecessary, according to some home butchers. Since no one eats the skin anyway, they see no need to go to all the trouble of scalding and scraping it. Instead, a hog can be skinned just as you would skin a calf (see p.15), but unless you plan to tan the pig skin, there is an easier way.

First wash off the hanging carcass with a hose. Then cut the skin off in strips about three inches wide. Start the strips with a sharp knife at the top of the carcass and pull them down as far as you can with your hands. Skin the entire animal this way, then remove the head by cutting across the back of the neck just above the ears. Cut through the gullet and windpipe. Let the head drop and wait a minute for the bleeding to finish. Pull down on the ears and cut from the ears to the eyes and then to the point of the jawbone. This cuts off the head but leaves the jowls on the carcass.

Make a deep cut up the center of the hind legs from the foot to the hock. In each incision you will find three tendons. Work them out with the fingers.

Eviscerating

Place a container under the hanging carcass to catch the entrails and open the abdomen by cutting from the sticking point in the throat upward to the breastbone, being careful not to puncture the stomach. Using the knife as a pry, split the breastbone.

Continue the cut down the belly, being very careful not to cut into the stomach or intestines. Hold the knife down, with the blade pointing out or hold the hand inside to protect the entrails. Cut around the reproductive organs to the anus. To release the intestine, cut around the anus, cutting it free, but not cutting into it. Tie off the end with a piece of twine and work the tied-off end through the hole you cut into the abdominal cavity. Pull the entrails out into the container below, cutting away any tissue holding them. Cut the gullet loose from the chest cavity and pull it out with the stomach.

Hose out the inside of the empty carcass and remove any large pieces of fat, including the long strips of flaky-looking leaf fat that run the length of the carcass. Save them for lard.

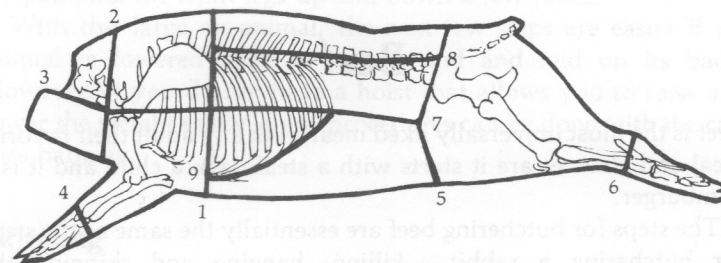
Cutting the Meat

While the carcass is still warm, split it down the middle of the backbone with a knife or saw. Leave about twelve inches of skin intact at the shoulders to hold the two sides together.

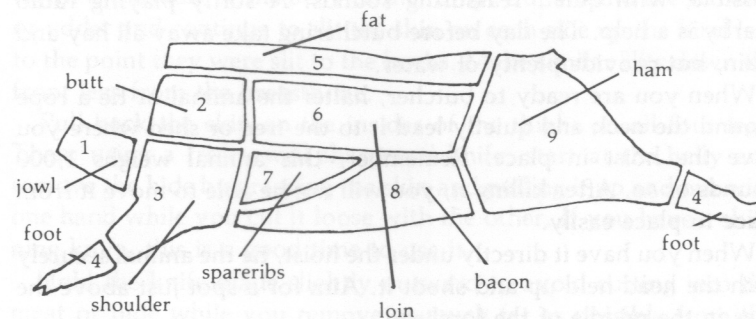
Pork is not aged like beef but should be thoroughly chilled before cutting or curing. Let it hang for twenty-four hours where the temperature is between thirty-two degrees and thirty-five degrees F.

When the carcass is chilled to the bone, cut the skin holding the two sides together and lay each half on the cutting table to cut as the illustrations show.

Pork Cuts



- Cut 1: Cut between the fourth and fifth ribs. Use a saw to cut through the backbone.
- Cut 2: Cut off the jowl. Trim to a square.
- Cut 3: Separate the butt from the shoulder. Trim the shoulder to look like a small ham.
- Cut 4: Saw off the front foot.
- Cut 5: Cut off the ham at the joint. Trim to round off the corners.
- Cut 6: Cut off the hind foot.
- Cut 7: Using a saw, cut the center piece in half lengthwise.
- Cut 8: Trim the fat back from the loin.
- Cut 9: Cut the spareribs from the top of the back.



- 1. Cure the jowl as a bacon square.
- 2. The Boston butt is cured or ground for sausage.
- 3. The shoulder can be cured as a picnic ham or roasted fresh.
- 4. Simmer or pickle the feet.
- 5. The fatback can be cured or used in lard or sausage.
- 6. Cut between the ribs for loin chops or roast. Pull out the meaty strip of tenderloin and cut the remainder into short ribs.
- 7. Spareribs can be baked or simmered.
- 8. Bacon is cured.
- 9. Ham is cured.

Beef

Beef is the most universally liked meat. Ask any adult their favorite meal and chances are it starts with a steak; ask a child and it is a hamburger.

The steps for butchering beef are essentially the same as the steps for butchering a rabbit — killing, hanging and skinning the animal, removing the entrails, aging the carcass, and cutting the meat. A 1,000-pound beef calf is not more complicated to butcher than a 3-pound rabbit. Just bigger.

It is a good idea to start with a yearling calf. A grain-fed yearling will weigh from 800 pounds to 1,000 pounds and about 400 to 500 pounds of that will be edible meat. The carcass is not as hard to handle as a 1,200-pound to 1,500-pound older calf, and you will have less invested in it than in an animal you have had to feed for two years.

Pen the calf up a week or two before butchering and give it plenty of feed, quiet, and attention. Keep it in familiar surroundings, if possible, with quiet, reassuring sounds. A softly playing radio nearby is a help. The day before butchering take away all hay and grain, but provide plenty of water.

When you are ready to butcher, halter the animal or tie a rope around the neck and quietly lead it to the tree or shed where you have the hoist in place. Remember, this animal weighs 1,000 pounds or so. After killing it, you will not be able to move it from place to place easily.

When you have it directly under the hoist, tie the animal securely with the head held up and shoot it. Aim for a spot just above the eyes in the middle of the forehead.

Move quickly now. As soon as the calf falls, roll it over on its back and slit the neck from the jawbone to the breastbone. At the breastbone, push the knife under the bone and between the first ribs. Cut to the backbone on either side of the gullet. Turn the knife over and cut downward to sever the carotid arteries.

Immediately insert hanging hooks or a chain in incisions between the tendons and bones at the hocks just above the first joint in the hind legs. Hoist the animal off the ground, upside down, to a comfortable working height. You will need to adjust the height from

time to time as you work. As the animal bleeds out, you can help by pumping the front legs up and down a few times.

With this large an animal, the next few steps are easier if the animal is lowered back to the ground and laid on its back. However, if you do not have a hoist that allows you to raise and lower the weight easily, these procedures can be done with the carcass hanging.

Skinning

Skin the head by cutting through the hide across the top of the skull, then down to the eye and the corner of the mouth on each side. Start peeling off the skin at the point where the throat was cut, loosening the hide free with a knife where necessary.

Cut off the head and remove the cheek meat. Sever the tendons on the front legs by cutting across the legs between the foot and the dewclaws. Cut the skin loose around the feet and make a slit on each to above the knee at the back of the legs. Pull the skin back and cut the foot off at the joint.

Cutting carefully to avoid puncturing the abdominal wall, make a slit just through the skin from the cut you made in the breastbone down the middle of the belly to the rump. Cut around the scrotum or udder and continue to slit the skin on each side up the hind legs to the point they were slit to the hocks. Make similar slits down the front legs from the breastbone.

Pull back the skin on the insides of the thighs on all four legs. Then, using a fresh, well-sharpened knife, start at the belly and remove the hide by grasping the skin and pulling it up and out with one hand while you cut it loose with the other. If you have a skinning knife, this is a good time to use it.

Hold the knife blade slightly outward to avoid cutting into the meat or hide while you remove as much fat as possible from the hide. Skin the front and sides. Then, if you lowered the carcass to the ground, hoist it up again, and finish skinning the back. Skin the tail down a few inches, then cut it off. Keep the skin in one piece. It can be sold or used for leather.

Now take a minute to wash off the skinned carcass. Some experts say not to use water on the meat; certainly you do not want to soak it. But you will find at this point the carcass has more blood and hairs on it than you would like. Use a hose and wipe it down with a dry towel or wash it with a clean cloth dipped in water. Clean off

the knives in hot water and place a large container under the carcass.

Eviscerating

Reach into the throat opening you made and work out the gullet and windpipe as far as possible. Tie the gullet off with a piece of sturdy twine so any stomach contents will not contaminate the meat.

Now cut open the carcass from breastbone to anus, being careful to cut only through the abdominal wall and not to puncture the intestines. Saw through the breastbone and the pelvic arch to lay the carcass open.

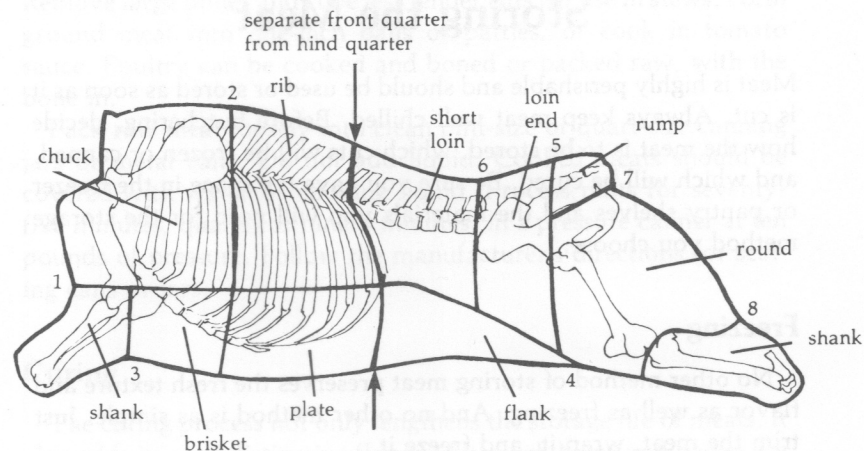
Cut the anus loose, tie off the end with a piece of twine, and carefully cut away any tissue holding it. Gently ease the entrails out and into the container below, cutting them loose as necessary. Now split the carcass down the middle of the backbone with a saw or cleaver, and hose the insides of the carcass with cold water.

Let the sides hang in a temperature of thirty-two degrees to thirty-five degrees F. for six to seven days for yearling calves, up to ten to fifteen days for older beef.

Cutting the Meat

When you are ready to cut the meat, separate each side into two quarters by cutting across the carcass between the twelfth and thirteenth ribs. Since the carcass has thirteen ribs, this leaves twelve ribs on the front quarter and one rib on the hind quarter. Slant the cut at the belly and cut to the backbone, then saw through the spine.

Lay the front quarter on the cutting table, bone-side down, and cut it into five large pieces. Cut up the front quarters first, as shown. Then lower one of the hind quarters from the hoist and place it on the cutting table, bone-side down and cut that piece as the illustration shows. Repeat with the other hind quarter. All scraps, as well as any cut you wish to use, can be used for ground beef.



First separate the front quarter from the hind quarter.

Cut 1: Cut from the rib to just above the elbow joint, starting 10 inches from the backbone.

Cut 2: Cut between the fifth and sixth ribs to separate the rib from the chuck, and continue sawing downward to separate the plate and brisket.

Cut 3: Saw off the front shank at the elbow.

Cut 4: Trim away the boneless triangular flank from the belly.

Cut 5: Separate the loin from the round at the hip joint.

Cut 6: Starting at the hip joint, divide the loin into two pieces, the short loin and the loin end.

Cut 7: Remove the rump from the round by sawing across the aitchbone.

Cut 8: Cut off the hind shank by cutting through to the bone on the back side, then cutting along the bone to the joint. Work the knife between the joints.

Preparing the Cuts

Cut the chuck into pot roasts and boned rolled roasts.

Cut between the ribs for rib steaks or use for standing rib roasts.

The front shank should be cut into soup bones.

The brisket is used for corned and ground beef.

The plate is cut into short ribs or ground for beef patties.

Pull out the flank steak and use the rest of the flank for ground beef.

Slice the loin end into sirloin steaks.

The short loin is sliced into porterhouse, T-bone, and club steaks.

The rump is roasted.

Slice the top of the round for steaks, the bottom for pot roasts.

The shank is ground or simmered in soups.

Storing the Meat

Meat is highly perishable and should be used or stored as soon as it is cut. Always keep meat well chilled. Before butchering, decide how the meat is to be stored, which cuts will be frozen or canned, and which will be cured. Be sure you have the space in the freezer or pantry shelves and the materials you will need for the storage method you choose.

Freezing

No other method of storing meat preserves the fresh texture and flavor as well as freezing. And no other method is as simple. Just trim the meat, wrap it, and freeze it.

Before wrapping, trim off excess fat and any bones that can be removed easily. Fat turns rancid quickly and cuts down on the storage life of the meat. Bones take up too much freezer space.

Do not add salt or other seasonings to meat (including fresh sausage) before freezing. Freeze meats in packages for one meal in the right amount for your family. The smaller the packages, the easier they are to freeze, store, and thaw. Place a double thickness of paper between chops and steaks so they can be separated easily.

The storage life of unsliced, cured meats is two months to three months at zero degrees F. Ground meats and pork will keep well for four months at that temperature. Veal will keep up to six months. Beef and lamb cuts can be stored up to nine months.

Poultry keeps better when packaged whole, but it is sometimes convenient to cut up chickens and sort the pieces, separating the meaty ones from the bony pieces. If you are freezing several chickens, you may want to package together all thighs, or all drumsticks, or all white meat for special dishes. Package livers separately and use them within three months. Other giblets and poultry meat can be stored up to nine months.

Canning

Meat and poultry can be canned with excellent results. Canned meats are a delicious convenience. Some meats, notably cured meats, keep longer when canned than when frozen.

Trim off all fat and cut the meat into pieces convenient for use. Remove large bones and cube less tender cuts for use in stews. Form ground meat into one-inch balls or patties, or cook in tomato sauce. Poultry can be cooked and boned or packed raw, with the bone in.

Pack raw meat loosely into clean pint-size or quart-size canning jars or metal cans. Do not add liquid. Cooked meats should be covered with water or cooking liquid. Process pints for seventy-five minutes, quarts for ninety minutes, in a pressure canner at ten pounds of pressure. Follow the manufacturer's directions for sealing cans or jars.

Curing

The curing process not only lengthens the storage life of meats, it also adds its own distinctive flavor. Although hams and bacon are the traditional cuts reserved for curing, any meat can be cured with delicious results. Pork chops and spareribs are good when cured, and the hind leg of mutton or chevon tastes much like ham when cured. Almost any beef cut can be cured for dried beef or corned beef. Cured chickens or turkeys are tasty.

To obtain a good cure, you must provide cool temperatures, the right amount of salt, and the process must be timed carefully.

Cool temperatures. The meat must be kept cold throughout the curing process. If you cannot trust the weather to stay below forty degrees F., it is possible to cure small batches in the refrigerator in a covered bowl or plastic bag. Sometimes cold storage space can be rented at the local butchering plant.

Salt. Weigh the salt and the meat. The sugar gives the cured meat its flavor, but it is the salt that keeps it from spoiling. Use fine, granulated table salt, not iodized.

Time. Timing is important in curing. If you allow too much time, the meat will be hard and salty; too little, and it will spoil. Meat should remain in the brine or dry-cure one day to three days per pound, depending on the size of the cut and the amount of cure desired. Bacon and Canadian bacon should be cured one day per pound for a mild cure, up to one and a half days per pound for maximum keeping quality. Hams and shoulders should be cured

two days to three days per pound. After curing, the meat should hang in a cool place one week to three weeks to age and to let the salt spread evenly through the meat.

There are excellent sugar-cure mixtures on the market, but if you would like to make your own, here is a brine recipe recommended by the United States Department of Agriculture.

BRINE RECIPE

6 gallons water
12 pounds salt
3 pounds white or brown sugar
100 pounds of chilled meat

Dissolve the salt and sugar in the water and bring to a boil. Stir well and chill thoroughly before using. When the meat and brine both are well chilled, pack the meat in a clean stone crock or wooden barrel. Place hams on the bottom, skin-side down, then the shoulders, and finally the bacon slabs, skin-side up. Pack the meat tightly and weight it down so it will not float in the brine. Pour the cold brine over the meat, being certain all the meat is immersed. Keep the container in a cool (under forty degrees F.) place for seven days.

At the end of seven days, pour the brine into a pan. Remove the meat and repack it, repositioning the pieces for an even cure. Pour the brine back over the meat, and keep it in a cool place until the curing is complete.

After curing, the meat should hang in a cold place one week to three weeks to age. It can then be smoked or used as is.

Using the By-Products

If a 600-pound animal is 50 percent to 60 percent edible meat, you will be left with 300 to 400 pounds of both edible and nonedible by-products when you have finished butchering. Whatever the size of the animal you butchered, you will have a container of entrails and several pounds of hide and bones left over.

Do not throw them away. With a little ingenuity and some work, every bit of the animal can be used.

Organ Meats

The organ meats of large animals — the brains, tongue, heart, kidneys, liver, sweetbreads, and tripe — are even more nutritious than the muscle meats. Liver and kidneys are high in vitamins and minerals and are very flavorful meats. Brains, sweetbreads, and tripe are delicate both in texture and flavor. The tongue and heart are fine textured and mild flavored.

Do not age the organ meats with the carcass. Brains, sweetbreads, kidneys, and tripe are extremely perishable and should be cooked within twenty-four hours after butchering. Liver, heart, and tongue can be stored in the freezer.

Brains and tongue. Immediately after cutting off the head, whether or not it is skinned, soak it in cold water. Rinse well in running water. When the butchering is completed, remove the tongue by making an incision on each side of the head just inside the jaw. Cut through the cartilage at the base of the tongue, pull the tongue out, and cut it off. Remove the cheek meat on each side of the jawbone and add it to the muscle meats. Split or saw the skull open and remove the brains.

Heart. The heart, lungs, and gullet of the animal are attached to the backbone in the chest cavity. Remove them together. Trim the heart and wash well. Discard the lungs and gullet.

Kidneys. Two kidneys will be found in the abdominal cavity on each side of the backbone. Cut through the knob of fat to the kidneys, removing the white membrane covering them.

Liver. Remove the liver with the intestines. Attached to it is the gall bladder, a sac of dark green liquid that will give a bitter taste to anything it touches. Carefully cut or pull the sac from the liver without breaking the sac. Wash and refrigerate the liver. Discard the sac.

Sweetbreads. Sweetbreads are the thymus glands of the calf and lamb. Pork sweetbreads are not used. The gland resembles the heart and is located near it at the base of the neck.

Tripe. The lining of the first and second stomachs of calves is used as tripe. Plain tripe is the lining of the first stomach. Honeycomb tripe, the most popular, is the lining of the second stomach. Cut the stomachs from the gullet, slit them open, and turn them inside out. Wash and rinse several times in clean, cold water. Tripe must be simmered in water to cover four hours or more, until tender. Refrigerate it until you are ready to cook it for a meal.

Pelts and Hides

Whether you plan to sell it or tan it yourself, the skin of the animal is a valuable by-product. When you have finished skinning the animal, take a minute to put the hide out of harm's way in a dry place in the shade while you continue with the butchering.

As soon as the carcass has been cleaned and gutted and set aside to chill, spread the skin out on a clean surface, fur-side down, and carefully scrape off any fat or meat. At this point, you can salt the green hide to preserve it for a week or so until you have time to tan it.

If possible, weigh the hide and measure one pound of salt for every pound of hide. If this is not possible, allow about twenty-five pounds of salt for a mature beef, fifteen pounds for a small calf, and ten pounds for a sheep or goat. Use about three pounds of salt for a lamb or kid skin and one pound or less for a rabbit skin. When in doubt it is better to use too much salt rather than too little.

Spread out the cleaned and scraped hide to eliminate wrinkles. Dampen the inside of the skin if it has dried out. Sprinkle a layer of salt over every inch of the hide, then rub it in well, using a brush or your hands.

When all the salt is rubbed in, fold in the four edges, loosely roll up the hide, and store it in a cool, dry place. If you must keep it longer than a week, shake out the hide, drain it, resalt it, and roll it up for another week.

The hide can be stored in the freezer for later tanning. After the skin is cleaned and scraped, roll it up and put it in a plastic freezer bag. Do not salt it. Use a vacuum cleaner hose to remove the air in the bag and seal well. Store at zero degrees F. for no more than a month. (For detailed tanning instructions, see Phyllis Hobson's *Tan Your Hide*.)

Feathers

As you pluck poultry, separate the down from the feathers. Spread both separately in thin layers over a flat surface. A window screen works well. Cover with a layer of cheesecloth, fasten the cloth down, and dry it in a well-ventilated place. Use the down for quilted jackets and the feathers to stuff pillows.

Bones and Horns

For a delicious, nutritious meat broth and soup base, fill a sixteen-quart pressure canner with the trimmed bones left over from butchering. Half fill the canner with water. Cook at fifteen pounds of pressure for one hour, then turn off the heat, and let the pressure drop. Strain the broth into a clean kettle. Remove whatever meat is left on the bones and add it to the kettle. A kettle full of closely-trimmed bones will yield at least a quart of meat. Chill the broth and lift off the fat. The meat and defatted broth can be canned or frozen. A beef will yield five or six canners full of bones.

This broth is very rich in calcium from the bones, but there are still a lot of minerals left in the bones after cooking. Give some bones to the dogs and bury the rest around fruit trees or among permanent plantings in the garden, where they will slowly leach out and enrich the soil.

Horns can be fashioned into beautiful knife handles, decorative inlays, buttons, toggle fasteners, and zipper pulls.

Fat

A pure, white lard can be made from the back and side fat of pork. It should be rendered over very low heat in a large, heavy kettle. Cut up or grind the fat to speed the process and stir it frequently to keep the pieces from sticking. As the lard cooks out, the cracklings will float to the top. As they do, skim them off and drain them. They are delicious in corn bread. When all the pieces have floated to the top, turn off the heat and let the liquid cool for thirty minutes. Ladle the lard into small coffee cans or plastic containers without disturbing the settlings on the bottom. Strain what is left through a piece of muslin and package separately. Store lard in the refrigerator. For long-term storage, keep it in the freezer.

Use the intestinal fat from hogs and all the fat from sheep and calves to make soap and candles. (For detailed instructions, see Phyllis Hobson's *Making Homemade Soaps and Candles*.)

Sausage and Bologna Casings

The small intestine of the hog is used for sausage casings. Small intestines from beef are stuffed to make wieners. Large beef intestines are used for bologna. To prepare them for stuffing, first tie off the intestine at both ends with twine, then cut them loose. Remove any fat, untie one end, and carefully strip out the contents by squeezing with the fingers from the top to the bottom. Thoroughly wash the casing, inside and out, first in clear water, then in hot, soapy water, then again in clear water. This is easier to do if two people work together, or if the intestine is cut into several pieces.

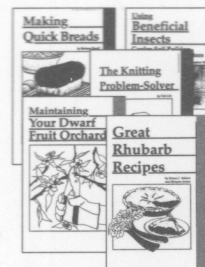
Once the casing is cleaned, turn it inside out. With the dull edge of a knife, scrape off the mucous coating on the inside (now the outside). Wash again and soak for several hours in a solution of three tablespoons bleach to one gallon cold water. Rinse, turn right-side-out and rinse again before using.

In the Garden

Now that you have used up everything else, you are left with the entrails from the animal and some other things, including the blood. Do not waste them; they can add valuable nutrients to your garden.

You can make a rich, humusy compost by adding them — and any other by-products you did not use, except fat — to leaves, grass clippings, garbage, and manure and anything else organic you can find. Add any feathers, hide, or bones you have leftover, too. They will take a few years to decay, but they will keep feeding the soil, wherever they are. Mix it up, cover with a layer of soil, and wait a few weeks, then mix it up again. After a month or two you will have a soft, black soil that will do wonders for your plants.

And think how good you will feel, knowing that none of the animal you butchered went to waste.



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