



Lamb from Farm to Table

Lamb is the oldest domesticated meat species. It has been raised by humans beginning about 9,000 years ago in the Middle East. In many countries, lamb is the major source of meat eaten. Many Americans think of lamb as a springtime food, but it can be enjoyed year round. The following information answers many questions callers have asked the Hotline about lamb.

What is Lamb?

Lamb is meat from sheep less than 1 year old. Most are brought to market at about 6 to 8 months old. If the phrase "Spring Lamb" is on a meat label, it means the lamb was slaughtered between March and October. The term comes from olden times when lambs born in harsh winter weather would have little chance to survive until the next year. Today with more protected animal husbandry conditions, enjoying "lamb" is not confined to a particular season of the year.

A lamb weighs about 120 pounds and yields approximately 60 to 72 pounds of retail lamb cuts, which include bone and fat.

Mutton is meat from sheep more than a year old. It is likely to be less tender than lamb and have a stronger flavor.

How are Lambs Raised?

During weaning, lambs gradually begin feeding on pasture or coarsely ground grain. They are raised on hay and feed consisting of corn, barley, milo (a type of sorghum), and/or wheat supplemented with vitamins and minerals. Lambs are usually "finished" (grown to maturity) in feedlots where they are fed specially formulated feed.

How is Lamb Inspected?

All lamb found in retail stores is either USDA inspected for wholesomeness or inspected by state systems which have standards equal to the Federal government. Each lamb and its internal organs are inspected for signs of disease. The "Passed and Inspected by USDA" seal insures the lamb is wholesome and free from disease.

What Does the Grade Mean?

Inspection is mandatory; grading is voluntary, and a plant pays to have its meat graded. USDA-graded lamb sold at the retail level is Prime, Choice, and Good. Lower grades (Utility and Cull) are mainly ground or used in processed meat products. Retail stores may use other terms which must be different from USDA grades.

USDA Prime lamb has more fat marbling, so it is the most tender and flavorful grade. However, it is higher in fat content. Most of the graded lamb sold in supermarkets is USDA Choice or USDA Good. The protein, vitamin, and mineral content of lamb are similar in all grades.

How Is Ungraded Lamb Different?

All lamb is inspected for wholesomeness. The overall quality of ungraded lamb may be higher or lower than most government grades found in retail markets.

Can Hormones and Antibiotics Be Used in Lamb Raising?

Zeronal, a synthetic hormone, may be used to promote efficient growth in feedlot lambs. The hormone is implanted on the lamb's ear and is time released for about 30 days. A withholding period of 40 days is required before slaughter.

Antibiotics may be given to prevent or treat disease in lambs. A recommended withholding period is required from the time antibiotics are administered until it is legal to slaughter the animal. This is so residues can exit the animal's system. FSIS randomly samples lamb at slaughter and tests for residues at limits set by the Food and Drug Administration. Data from this monitoring program have shown a very low percentage of residue violations.

What to Look for When Selecting Lamb

Lamb is usually tender because it is from animals less than 1 year old. However, look for good marbling (white flecks of fat within the meat muscle), and meat that is fine textured and firm. In color, the meat should be pink and the fat should be firm, white, and not too thick. The USDA quality grades are reliable guides.

Retail Cuts of Fresh Lamb

There are five basic major (primal) cuts into which lamb is separated: shoulder, rack, shank/breast, loin, and leg. It is recommended that packages of fresh lamb purchased in the supermarket be labeled with the primal cut as well as the product, such as "shoulder roast" or "loin chop."

What is a Rack of Lamb?

The "rack" is the unsplit primal rib (sometimes called the hotel rack) of the carcass which includes ribs 6 through 12. The rack is split to make two primal lamb rib roasts. A "lamb crown roast" is made by sewing two rib roasts together to form a circle or crown.

What is a Lamb Chop?

Chops can come from various primal cuts. "Loin" chops and "rib" chops are the most tender. Less expensive "blade" and "arm" chops (from the shoulder) and "sirloin" chops (from the leg) can be just as tender, but they are not as visually attractive because the meat is separated by bands of connective tissue.

What is the "Fell?"

The fell is the thin, paper-like covering on the outer fat. It should not be removed from roasts and legs because it helps these cuts retain their shape and juiciness during cooking. The fell has usually been removed at the market from smaller cuts, such as chops.

How Much Lamb Is Consumed?

According to USDA's Economic Research Service, each American eats about .8 pound of lamb yearly.

What Does "Natural" Mean?

All fresh meat qualifies as "natural." Products labeled "natural" cannot contain any artificial flavor or flavoring, coloring ingredient, chemical preservative, or any other artificial or synthetic ingredient; and the product and its ingredients are not more than minimally processed (ground, for example). All products claiming to be natural should be accompanied by a brief statement which explains what is meant by the term "natural."

How and Why is Some Lamb Aged?

Lamb is aged to develop additional tenderness and flavor. Usually only ribs and loins of high quality lamb are aged, and these are mainly sold to restaurants. Aging is done commercially under controlled temperatures and humidity. Since aging can take from 10 days to 6 weeks, the USDA does not recommend aging lamb in a home refrigerator.

Why is Lamb Called a “Red” Meat?

Oxygen is delivered to muscles by the red cells in the blood. One of the proteins in meat, myoglobin, holds the oxygen in the muscle. The amount of myoglobin in animal muscles determines the color of meat. Lamb is called a “red” meat because it contains more myoglobin than chicken or fish. Other “red” meats are beef, veal, and pork.

Additives

Additives are not allowed on fresh lamb. If it is processed, additives such as MSG, salt, or sodium erythorbate must be listed on the label.

Dating of Lamb Products

Product dating is not required by Federal regulations. However, many stores and processors may voluntarily date packages of raw lamb or processed lamb products. If a calendar date is shown, immediately adjacent to the date must be a phrase explaining the meaning of that date such as “sell-by” or “use before.”

Except for “use-by” dates, product dates don’t always refer to home storage and use after purchase. “Use-by” dates usually refer to best quality and are not safety dates. But even if the date expires during home storage, a product should be safe, wholesome and of good quality — if handled properly and kept at 40° F or below. If the product has a “use-by date,” follow that date. If the product has a “sell-by” date or no date, cook or freeze the product by the recommendations in the “Storage Times” section of this publication.

Rinsing Lamb

There is no need to wash raw lamb before cooking because this creates the danger of cross-contamination and is not necessary. Any bacteria that might be present would be destroyed by cooking.

How to Handle Lamb Safely

Raw Lamb. Select lamb just before checking out at the register. Put packages of raw lamb in disposable plastic bags (if available) to contain any leakage which could cross-contaminate cooked foods or produce that will be eaten raw such as salad.

Take lamb home immediately and refrigerate it at 40 °F or below. Use ground lamb or stew meat within 1 to 2 days, lamb chops, roasts, and steaks within 3 to 5 days or freeze at 0 °F or below. If kept frozen continuously, it will be safe indefinitely.

It is safe to freeze lamb in its original packaging or repackage it. However, for long-term freezing, overwrap the porous store plastic with storage wraps or bags to prevent “freezer burn,” which appears as grayish-brown leathery spots and is caused by air reaching the surface of food. Cut freezer-burned portions away either before or after cooking the lamb. Heavily freezer-burned products may have to be discarded for quality reasons. For best quality, use frozen lamb roasts, steaks, and chops within 6 to 9 months; ground lamb, 3 to 4 months.

Ready-Prepared Lamb. For fully-cooked, take-out lamb dishes such as Kabobs, Gyros, or Chinese food, be sure they are hot at pickup. Use cooked lamb within 2 hours (1 hour if the air temperature is above 90 °F) or refrigerate it at 40 °F or below in shallow, covered containers. Eat within 3 to 4 days, either cold or reheated to 165 °F (hot and steaming). It is safe to freeze ready-prepared lamb dishes. For best quality, use within 2 to 3 months.

Safe Thawing

There are three safe ways to thaw lamb: in the refrigerator, in cold water, and in the microwave. It's best to plan ahead for slow, safe thawing in the refrigerator. Ground lamb, stew meat, and steaks may defrost within a day. Bone-in parts and whole roasts may take 2 days or longer.

Once the raw product thaws, it will be safe in the refrigerator 3 to 5 days (for roasts, steaks, and chops) and 1 to 2 days for ground lamb before cooking. During this time, if you decide not to use the lamb, you can safely refreeze it without cooking it first.

To thaw lamb in cold water, do not remove packaging. Be sure the package is airtight or put it into a leakproof bag. Submerge the lamb in cold water, changing the water every 30 minutes so that it continues to thaw. Small packages of lamb may defrost in an hour or less; a 3- to 4-pound roast may take 2 to 3 hours.

When thawing lamb in cold water or in the microwave, plan to cook it immediately after thawing. Never thaw on the counter or any other location at room temperature.

Foods defrosted in the microwave or by the cold water method should be cooked before refreezing because they may potentially have been held at temperatures above 40 °F, where bacteria multiply rapidly.

It is safe to cook frozen lamb in the oven, on the stove, or grill without defrosting it first; the cooking time may be about 50% longer. Do not cook frozen lamb in a slow cooker.

Marinating

Marinate lamb roasts, steaks, or chops in the refrigerator up to 5 days. Lamb cubes or stew meat can be marinated up to 2 days. Boil used marinade before brushing on cooked lamb. Discard any uncooked leftover marinade.

Storage Times

Since product dates aren't a guide for safe use of a product, how long can the consumer store the food and still use it at top quality? Follow these tips:

- Purchase the product before the date expires.
- Follow handling recommendations on product.
- Keep lamb in its package until ready to use.
- Refrigerate lamb roasts, steaks, and chops 3 to 5 days (ground lamb or stew meat, 1 to 2 days); and 3 to 4 days after cooking.
- If product has a "use-by" date, follow that date.
- If product has a "sell-by" date or no date, cook or freeze the product by the times recommended above.
- Once a perishable product is frozen, it doesn't matter if the date expires because foods kept frozen continuously are safe indefinitely.
- For best quality, use frozen lamb roasts, steaks, and chops within 6 to 9 months; ground lamb, 3 to 4 months.

APPROXIMATE LAMB COOKING TIMES

For safety, the USDA recommends cooking lamb patties and ground lamb mixtures such as meat loaf to a safe minimum internal temperature of 160 °F as measured on a food thermometer. However, whole muscle meats such as roasts, steaks, and chops may be cooked to 145 °F (medium rare), 160 °F (medium), or 170 °F (well done). For approximate cooking times for use in meal planning, see the following chart compiled from various resources.

Times are based on lamb at refrigerator temperature (40 °F). Remember that appliances and outdoor grills can vary in heat. Use a food thermometer to check for safe cooking and doneness of lamb.

CUT OF LAMB	SIZE	COOKING METHOD	COOKING TIME	INTERNAL TEMPERATURE
Lamb Leg, bone in	5 to 7 lbs.	Roast 325°	20 to 25 min./lb. 25 to 30 min./lb. 30 to 35 min./lb.	Medium rare 145 °F Medium 160 °F Well done 170 °F
	7 to 9 lbs.	Roast 325°	15 to 20 min./lb. 20 to 25 min./lb. 25 to 30 min./lb.	Medium rare 145 °F Medium 160 °F Well done 170 °F
Lamb Leg, boneless, rolled	4 to 7 lbs.	Roast 325°	25 to 30 min./lb. 30 to 35 min./lb. 35 to 40 min./lb.	Medium rare 145 °F Medium 160 °F Well done 170 °F
Shoulder Roast or Shank Leg Half	3 to 4 lbs.	Roast 325°	30 to 35 min./lb. 40 to 45 min./lb. 45 to 50 min./lb.	Medium rare 145 °F Medium 160 °F Well done 170 °F
Cubes, for Kabobs	1 to 1 1/2"	Broil/Grill	8 to 12 minutes	Medium 160 °F
Ground Lamb Patties	2" thick	Broil/Grill	5 to 8 minutes	Medium 160 °F
Chops, Rib, or Loin	1 to 1 1/2" thick	Broil/Grill	7 to 11 minutes 15 to 19 minutes	Medium rare 145 °F Medium 160 °F
Leg Steaks	3/4" thick	Broil/Grill 4" from heat	14 to 18 minutes	Medium rare 145 °F Medium 160 °F
Stew Meat, pieces	1 to 1 1/2"	Cover with liquid; simmer	1 1/2 to 2 hours	Medium 160 °F
Shanks	3/4 to 1 lb.			
Breast, Rolled	1 1/2 to 2 lb.	*Braise 325°	1 1/2 to 2 hours	Medium 160 °F

*Braising is roasting or simmering less-tender meats with a small amount of liquid in a tightly covered pan.

Microwaving

Refer to the microwave's oven manual for microwaving lamb, and check it with a food thermometer.

Partial Cooking

NEVER brown or partially cook lamb to refrigerate and finish cooking later because any bacteria present wouldn't have been destroyed. It is safe to partially cook or microwave lamb immediately before transferring it to a hot grill or conventional oven to finish cooking.

What is the Yield of Cooked Lamb?

After cooking bone-in lamb leg or roast, one pound of raw weight will yield 8 to 9 ounces of edible meat. Ground lamb or boneless cuts will yield about 10.5 ounces of edible meat.

Food Safety Questions?

Call the USDA Meat & Poultry Hotline

If you have a question about meat, poultry, or egg products, call the USDA Meat and Poultry Hotline toll free at **1-888-MPHotline (1-888-674-6854)**; TTY: 1-800-256-7072.



The Hotline is open year-round Monday through Friday from 10 a.m. to 4 p.m. ET (English or Spanish). Recorded food safety messages are available 24 hours a day. Check out the FSIS Web site at www.fsis.usda.gov.

Send E-mail questions to MPHotline.fsis@usda.gov.

Ask Karen!

FSIS' automated response system can provide food safety information 24/7



www.fsis.usda.gov