



PhotoDisc

# Lamb from Farm to Table

*Sheep is the oldest domesticated meat species. Sheep have been raised by humans beginning about 9,000 years ago in the Middle East. In many countries, lamb (a young sheep) is the major source of protein. 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 USDA Meat and Poultry Hotline about lamb.*

## What is the difference between lamb and mutton?

Sheep (Ovine) carcasses are classified as lamb, yearling mutton, or mutton depending on their age as evidenced by their muscles and bones. For the purpose of this fact sheet we will be discussing lamb. The flavor of lamb is milder than mutton. Lamb is produced from younger animals, typically less than a year old, and mutton is produced from older animals. Most lambs are brought to market at about 6 to 8 months old. A lamb weighs about 140 pounds and yields approximately 46 to 49 pounds of edible lean retail lamb cuts, semi-boneless.

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.

## How are lambs raised?

Lambs are nursed by their mothers and when they are weaned, they gradually begin feeding on pasture or coarsely ground grain. They are fed 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. While most lambs are finished on grains, some lambs are raised on pasture and are finished on grass instead of grains. Grass-finished lamb is usually distinguished on the label.

## 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?

Grading for quality is voluntary. A processing plant may request to have its lamb graded for quality based on traits such as tenderness, juiciness and flavor. 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.

Lamb quality grades take into consideration maturity (lamb, yearling mutton, and mutton), conformation, and the palatability-indicating characteristics, such as fat streaking within the flank and firmness of the

lean. Most of the graded lamb sold in supermarkets is USDA Choice; 80% of the American lamb supply is USDA Prime or USDA Choice. The protein, vitamin, and mineral content of lamb are similar in all grades.

### **How is ungraded lamb different?**

All lamb is inspected for wholesomeness; however, since grading is not mandatory, the overall quality of ungraded lamb is unknown—it may be higher or lower than USDA graded lamb found at retail. Since the quality of lamb varies according to the age of the animal, it is advisable to buy lamb that has been USDA-graded since age is taken into consideration.

### **Can hormones and antibiotics be used in lamb raising?**

Yes. Hormones and antibiotics approved by the U.S. Food and Drug Administration (FDA) are permitted to be used in lambs slaughtered for meat. Antibiotics may be given to prevent or treat disease in lambs and hormones may be given to promote efficient growth. A recommended withholding period is required from the time antibiotics are administered until it is legal to slaughter the animal. This is so drug residues can exit the animal's system. FSIS samples lamb carcasses at slaughter and tests for residues. FSIS laboratory results above the tolerance limit set by FDA is considered a residue violation and are investigated by FDA or the State.

### **What to Look for When Selecting Lamb**

When shopping for lamb, look for meat that is fine textured and firm that has red coloring and white marbling (white flecks of fat within the meat muscle). The fat trim 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 the lamb carcass 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 primal cut, more commonly known as the rib. The rack contains 9 full ribs and can be split (along the back bone) into two 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 come from the loin and "rib" chops come from the rack (or rib); these are the most tender and most expensive chops. "Blade" and "arm" chops (from the shoulder) and "sirloin" chops (from the leg) are less expensive but may be just as tender.

### **How much lamb is consumed?**

According to USDA's Economic Research Service, each American eats about .7 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 the higher quality, more expensive primals, such as racks, ribs, and loins 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 under controlled conditions, 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 according to the recommendations in the “Storage Times” section of this publication.

### Rinsing Lamb

There is no need to rinse raw lamb before cooking because this creates a cross-contamination hazard and is not necessary. Any bacteria which 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 it within 3 to 4 days, either cold or reheated to 165 °F. 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 before cooking 3 to 5 days (for roasts, steaks, and chops) and 1 to 2 days for ground lamb. 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 the 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. Leaving food out too long at room temperature can cause bacteria (such as *Staphylococcus aureus*, *Salmonella* Enteritidis, *Escherichia coli* O157:H7, and *Campylobacter*) to grow to dangerous levels that can cause illness.

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

**Safe Cooking:** 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 by a food thermometer. Cook all raw lamb steaks, chops, and roasts to a minimum internal temperature of 145 °F as measured with a food thermometer before removing meat from the heat source. For safety and quality, allow meat to rest for at least three minutes before carving or consuming. For reasons of personal preference, consumers may choose to cook meat to higher temperatures. For approximate cooking times for use in meal planning, see the following chart.

Times are based on lamb held 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	Minimum Internal Temperature & Rest Time
Lamb Leg, bone in	5 to 7 lbs.	Roast 325°	20 to 25 min./lb.	145 °F and allow to rest for at least 3 minutes
	7 to 9 lbs.	Roast 325°	15 to 20 min./lb.	
Lamb Leg, boneless, rolled	4 to 7 lbs.	Roast 325°	25 to 30 min./lb.	
Shoulder Roast or Shank Leg Half	3 to 4 lbs.	Roast 325°	30 to 35 min./lb.	
Cubes, for Kabobs	1 to 1 1/2"	Broil/Grill	8 to 12 minutes	
Ground Lamb Patties	2" thick	Broil/Grill	5 to 8 minutes	160 °F
Chops, Rib, or Loin	1 to 1 1/2" thick	Broil/Grill	7 to 11 minutes	145 °F and allow to rest for at least 3 minutes
Leg Steaks	3/4" thick	Broil/Grill 4" from heat	14 to 18 minutes	
Stew Meat, pieces	1 to 1 1/2"	Cover with liquid; simmer	1 1/2 to 2 hours	145 °F and allow to rest for at least 3 minutes
Shanks	3/4 to 1 lb.			
Breast, Rolled	1 1/2 to 2 lb.	*Braise 325°	1 1/2 to 2 hours	

\*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)**. The hotline is open year-round



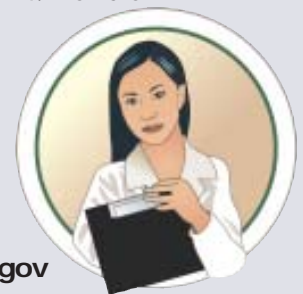
Monday through Friday from 10 a.m. to 4 p.m. ET (English or Spanish). Recorded food safety messages are available 24 hours a day. Check out the FSIS Web site at

[www.fsis.usda.gov](http://www.fsis.usda.gov).

Send E-mail questions to [MPHotline.fsis@usda.gov](mailto:MPHotline.fsis@usda.gov).

### Ask Karen!

FSIS' automated response system can provide food safety information 24/7 and a live chat during Hotline hours.



[AskKaren.gov](http://AskKaren.gov)

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