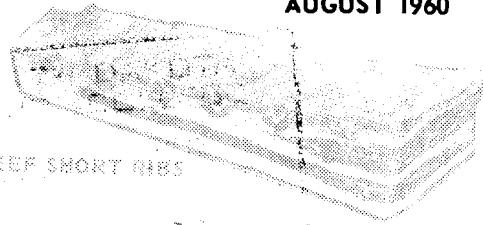


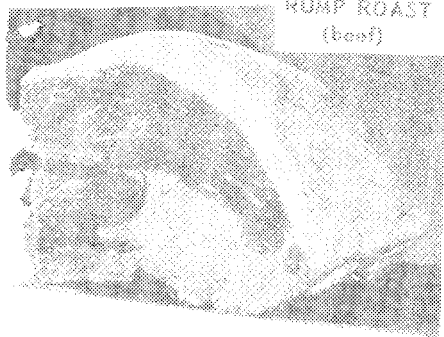
SMOKED HAM
(pork)



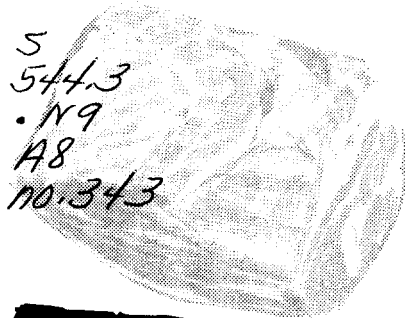
BEEF SHORT RIBS



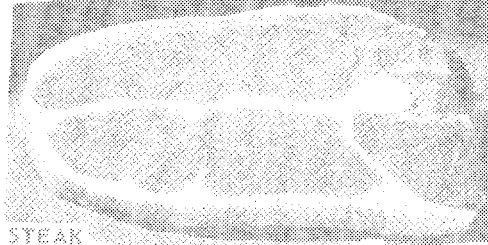
FLANK STEAK
(beef)



RUMP ROAST
(beef)



ROUND STEAK
(beef)



CALF LIVER



CORNER ROAST

By
Ruth Dawson
Extension Nutritionist



NDAC Extension Service, Fargo
NORTH DAKOTA AGRICULTURAL COLLEGE

MORE MEAT is eaten in America than in practically any other country. In 1959 we consumed, on the average, 159 pounds per person.

MEAT - IT'S GOOD FOR YOU.

Each day our food should supply us with many different nutrients.

- * Proteins for growth, tissue replacement, and for repair of the body.
- * Minerals and vitamins for growth and to keep the body functioning properly.
- * Fat and carbohydrate for energy.

No one food contains all of these nutrients in the amounts we need. However, meat is one of our most important sources for most of these nutrients.

The protein in meat contains all of the protein needed by the body and is called a complete protein. This protein is of the highest quality, supplying amino acids essential for normal growth in proportions well used by the body. Another important feature is that the proportion of these amino acids almost exactly parallels that in human protein.

Meat supplies minerals. It is the richest source of phosphorus which is needed to combine with calcium in building bones and teeth, and with protein and fat in building many body tissues. The iron of meat is of importance in the formation of blood and in the prevention of anemia. The magnesium, potassium and sodium found in meat help to maintain the mineral and fluid balance in the body.

Meat is one of the best sources of the B vitamins. Thiamine, riboflavin, niacin and pantothenic acid are but a few of them. Lean pork is much higher in thiamine than are other meats. Variety meats, especially kidney and liver, are excellent sources of the B vitamins and also of vitamin A. The B vitamins are essential to many body functions and are necessary in the formulation of blood and in the health of every organ in the body. Since the B vitamins are affected by heat and may be dissolved, it is necessary to cook meat properly and to serve all of the drippings in the form of sauce, gravies, soups etc., to retain as much of these vitamins as possible.

The edible fat in meat is important. This fat not only supplies heat and energy but also carries certain fat soluble vitamins and important fatty acids necessary for body functions. Producers are now working on feeding plans that will give to the market quality meat with less wasteful fat which at the present time often results

in higher prices per pound. This fat is now being discarded as waste when the cuts are trimmed for market.

Some form of meat should be served at least once a day unless there is some specific reason for it not being included in the diet. Meat is digested not only completely but rapidly.

Here are a few answers to some of the more common questions that are asked, on grades, buying, cooking and safety of meat, which may be helpful.

WHAT GRADES OF MEAT SHOULD I BUY?

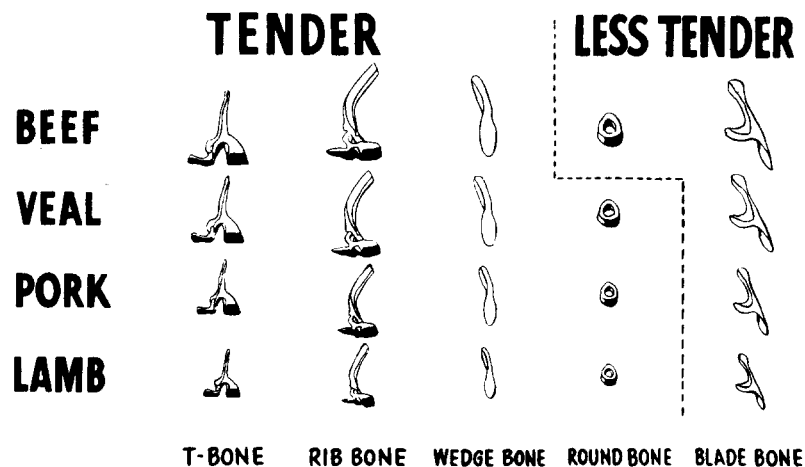
Any grade, with proper cooking, may be made tender and tasty. The top U.S.D.A. grade isn't necessarily the best for every use. Higher grades are well marbled with fat and are more tender, and more expensive. The lower grades have less marbling and are lower in cost.

DO ALL GRADES HAVE THE SAME NUTRITIVE VALUE?

All meat contains the same valuable proteins, minerals, and vitamins, regardless of grade or cut.

HOW CAN I TELL IF THE MEAT WILL BE TENDER?

The cut and the grade indicates tenderness. The tender cuts come from the loin or rib section, the part of the animal that is least exercised. The shape of the bone in a cut of meat can be used as a guide to indicate a tender or less tender cut.



IS BONED MEAT A GOOD BUY IF IT IS MORE EXPENSIVE?

This all depends upon the cut, sometimes it is. You should figure on the edible portion and that is done by figuring the cost for each serving by following this guide.

Number of servings:

Boneless meat — $\frac{1}{4}$ pound per serving

Bone-in-meat — $\frac{1}{2}$ pound per serving

Bony meat — $\frac{3}{4}$ to 1 pound per serving

Plan on 2 servings for hearty appetites. Plan on leftovers for big cuts requiring long cooking.

WHAT LESS EXPENSIVE CUTS OF BEEF ARE GOOD FOR GRINDING?

Cuts from the chuck, shanks, neck and brisket may be ground. As a rule it doesn't pay to use the round for grinding as less expensive cuts will be just as tasty when ground.

ARE PACKAGED MEATS A GOOD BUY?

Ready packaged meats make selection easier and faster for you. If the meat is fresh and meets your needs, yes, it can be a good buy. However, they have some disadvantages such as:

The package may not contain the right number of servings for you.

The underside of the meat is not always visible.

There is no way of knowing how long the meat has been cut.

Slices may vary in size and number.

WHAT TIME OF THE YEAR IS IT BEST FOR ME TO BUY MEAT FOR FREEZING?

Higher grade beef is most plentiful in the late winter and early spring, so is usually lowest in cost. Prices of lamb are usually their lowest in fall. Pork prices are their highest in summer when there's less pork going to market. Veal prices are lowest in summer and early fall.

DOES THE SIZE OF THE ROAST AFFECT THE COOKING TIME?

Yes, large cuts require a longer total cooking time but fewer minutes per pound than a small cut. Boneless or rolled meats need 5 to 10 minutes more per pound than thawed or fresh meat.

CAN I ROAST FROZEN MEAT WITHOUT THAWING?

Yes, allow 10 to 15 minutes more cooking time per pound than for thawed or fresh meat.

IS IT NECESSARY TO USE A MEAT THERMOMETER?

No, but it does take the guess work out of roasting. The meat thermometer shows the temperature inside the thickest portion of the roast and lets you know when the meat is cooked the way you like it, rare, medium, or well done.

WHY DO I HAVE TO COOK PORK TO THE WELL-DONE STAGE?

This is done to prevent trichinosis, the disease sometimes acquired by eating under cooked pork. Because of this never eat raw hamburgers. Buy ready- to-eat meat that has the U. S. Inspection stamp on it or has been prepared according to State regulations.

HOW SHOULD FRESH MEAT BE STORED?

Remove the market paper or unwrap prepackaged meat and cover loosely with waxed paper or foil to allow for circulation of air. Store in the coldest area of the refrigerator. For best eating quality use chops, steaks, and small roasts within three days, larger roasts slightly longer and ground meats within 24 hours.

FREEZER STORAGE TIME CHART

Freezer Temperature 0°F. or Colder

Meat in Freezer Wrapping	Limit of time for Maximum Quality
Beef (steaks, roast).....	6 to 8 months
Lamb.....	6 to 7 months
Veal.....	3 to 4 months
Pork (fresh).....	3 to 4 months
Variety Meats.....	3 to 4 months
Ground Beef.....	3 to 4 months
Cooked Meats.....	3 to 4 months
Smoked Ham *.....	Not over 2 months
Sausage (fresh), Franks, Bologna *.....	Do not freeze
Sliced Bacon *.....	Do not freeze

* Cured and smoked meats, as well as salted meats, deteriorate rapidly in flavor when frozen.

CHARTS FOR COOKING LESS TENDER CUTS
STEWING OR SIMMERING
In Water

Cut	Weight range	* Approximate time
Beef--1-1½ inch cubes from neck, chuck, plate or heel of round	2 lbs.	2½-3 hours
Veal or Lamb--1-1½ inch cubes from shoulder or breast	2 lbs.	1½-2 hours
Fresh beef brisket or plate	8 lbs.	4-5 hours
Corned beef brisket half or whole	4-8 lbs.	4-6 hours
Cross cut shanks of beef	4 lbs.	3-4 hours
Fresh or smoked beef tongue	3-4 lbs.	3-4 hours
Pork hocks	¾ lbs.	3 hours

* Cook until tender.

BRAISING

Cut	Weight range	Approximate time
		Brown and simmer for:
Beef pot roast, chuck, rump or heel of round	3-5 lbs.	3½-4 hours
Swiss steak (round) 1 inch thick	2 lbs.	1½-2 hours
Flank steak	1½-2 lbs.	1½ hours
Beef short ribs	2-2½ lbs.	2-2½ hours
Ox tail	1-1½ lbs.	3-4 hours
Rolled lamb shoulder pot roast	3-5 lbs.	2-2½ hours
Lamb shoulder chops	4-5 ozs. each	35-40 min.
Lamb shanks	1 lb. each	1½ hours
Pork rib or loin chops (¾-1 inch)	4-5 ozs. each	35-40 min.
Pork shoulder steaks	5-6 ozs. each	35-40 min.
Veal rolled shoulder pot roast	4-5½ lbs.	2-2½ hours
Veal cutlets or round steak	2 lbs.	45-50 min.
Veal loin or rib chops	3-5 ozs. each	45-50 min.

References used: Martha Logan's Meat
handi-book
Pennsylvania Extension
Leaflet 219