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Berdine Maginnis

Linda Boeckner
University of Nebraska--Lincoln, lboeckner1@unl.edu

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NebFact

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Cooking with Bison Meat

Berdine Maginnis, Extension Educator
Linda Boeckner, Extension Nutrition Specialist

This NebFact provides information about bison as an alternate meat source.[1] As consumers search for healthy food choices, there are increasing articles in the popular literature that promote bison as a healthy protein choice that is also low in fat and a good source of some vitamins and minerals. As one of the food choices that may be considered for enhancing health and wellness, consider the following information related to bison meat.

[1] The preferred term is bison, though consumers commonly refer to it as "buffalo."

Nutrition

According to the U.S. Department of Agriculture Nutrient Database, bison meat is a lean choice. Roasted bison game meat has 2.4 grams of fat and 143 kilocalories per 100 grams (approximately 3 1/2 ounces). When grown under similar conditions and to a similar age of maturity, bison has more trimmed boneless product and less fat trim as a percentage of side weight than beef cattle in all cuts of meat except for a higher fat trim in the rib cut. Table I compares the total fat, cholesterol and caloric value of selected cuts or types of meat that are known for their leanness.

Research at the University of Nebraska indicated bison meat could be considered a rich or good source of vitamin B12, selenium and vitamin B6. However, a portion serving (approximately 3 1/2 ounces) of bison composite cuts did not provide nutritionally important amounts of thiamin, vitamin C, vitamin A and tocopherols (vitamin E). As for other vitamins, bison fares better than other cuts of meat in some cases, worse in others.

Table I. Calories, fat and cholesterol per 100 grams (3 1/2 ounces) of cooked lean meat

	Calories Kcal	*Total Fat Grams*	*Cholesterol Milligrams*

Beef, round, eye of round, separable lean only, trimmed to zero fat, choice, roasted	175	5.7	69
Chicken, broilers or fryers, breast, meat only, roasted	165	3.6	85
Game meat, bison, roasted	143	2.4	82
Pork, fresh, loin, tenderloin, separable lean only, roasted	164	4.8	79

USDA Nutrient Database for Standard Reference, Release 11-1
NDB No. 13419, NDB No. 05064, NDB No. 17157, NDB No. 10061

Purchase

Bison is considered a gourmet or specialty meat. Consumers can purchase bison in selected grocery stores, health food stores, gourmet shops, meat markets and through mail order companies. Some restaurants now offer bison as well.

The muscle structure and cuts of meat are very similar to beef, although bison is generally a darker red. When purchasing bison, consider the cut of meat that you will need for your method of cookery. For example, more tender cuts that can be cooked using a dry heat method will come from the sirloin or short loin. As with any purchased meat, the age and freshness of the meat is an important factor for quality. Meat from older bison will be tougher and more stringy.

Cooking and Food Safety

Fat in meat acts as an insulator and slows down the cooking process. Because bison has a lower fat content, it usually cooks faster and can become overcooked if proper care isn't used. For this reason, proper cooking techniques should be followed according to the cut of meat. A general rule is to cook bison at a lower temperature.

Methods of Cooking Bison

Roasting:
The best temperature is 275°F in a preheated oven. Use a meat thermometer to reach 155°F (medium rare) to 170°F (well done). Even at a lower oven temperature, the roasting time for bison will be close to the time that it would take for a similar size of beef roast.

Crock pot:
Very slow, moist heat is needed for less tender cuts of bison meat such as chuck and stew meats.

Broiling or grilling:
Use more tender cuts of bison for broiling or grilling. Move the broiling or grilling rack about 2 inches farther away from the heat source than you would use for a beef steak. Check frequently to avoid overcooking.

Stir fry:
Cut bison into small strips. Add a few drops of oil to your pan and cook only enough to sear the meat. Quickly add vegetables using a low heat.

Ground bison:
Use the meat as you would in ground beef recipes. Usually there will be very little fat to drain off (depending on the amount of fat that has been added to the ground meat). All ground meats should be cooked thoroughly to an internal temperature of 160°F. Ground bison normally will cook faster than ground beef so care is needed to avoid drying out the meat.

As with any meat, use proper sanitation techniques when handling and storing. Work with clean hands. Avoid cross contamination with other foods by cleaning work surfaces with hot soapy water and rinsing the surfaces well. Keep hot foods hot (140°F or above) and cold foods cold (40°F or below). Don't let meat sit at room temperature for longer than two hours.

Taste

Research at the University of Nebraska compared the flavor, juiciness and tenderness of bison and beef loin meat from animals who were fed the same diets and were of similar ages of maturity. Taste panelists perceived bison meat to be juicier and more tender but with a more intense gamey flavor than beef.

Additional Resource

For additional information or recipes about bison meat, contact:

National Bison Association
4701 Marion Street, #100
Denver, CO 80216
Phone: 303-292-2833

References:

Fax: 303-292-2564

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