

BISON

Deliciously Healthy
From Tip to Tail



Inside: Health & Nutrition
Cooking Methods for Every Cut
Favorite Home Made Recipes from Bison Producers

Waste Not, Want Not

By Marilyn Bay Wentz

In today's climate of financial uncertainty, bison is a great option for you and your family. While there are protein sources that cost less per pound, few are as nutrient dense as bison, making it an economical choice. In addition, because bison producers are focused on using all or as much of the harvested animal as possible, your purchase of bison supports a waste not, want not philosophy.

The recipes in this annual food insert will inspire and instruct you on preparing bison, employing a variety of methods. In addition, the following suggestions might help with your family budget.

Invest in whole or half carcass purchases

If you know you love bison and have freezer space, consider contacting a local producer who will sell you an entire or a half carcass. Purchasing this way is usually less expensive, and you may be able to customize the cutting and packaging. If even a half carcass is too much, consider splitting it with another individual or family. When deciding cutting specifications, start with your recipes, and then decide how you'd like the meat cut. Another consideration people often overlook when contemplating the purchase of an entire or half carcass, is the greater efficiency in making a larger, annual purchase. Why make multiple trips to the butcher, farmers' market, or farm to purchase bison by the package when you can make a single trip to the processor to pick up an annual supply of bison?

Serve smaller portions

Use a prime cut, such as a fillet, in smaller portions. Prepare the prime cut beautifully with a special sauce or side dish for a nice presentation, and your efforts will produce a gourmet meal. A premium, yet smaller bun, along with special garnishes will dress up a bison burger without busting the pocketbook.

Think bison stir fry

A stir fry lets you use smaller quantities of bison, and because stir fried meat is cut thin, it is also possible to use a less expensive cut, such as a flank steak. Seasoned and grilled to perfection with vegetables, bison provides the perfect flavor and texture for stir fry preparation. Look in this insert for several options.

Make bison bone broth

Never know what to do with those soup bones? Make bison broth to use in the many recipes that call for both. See nutrition information and how to make bone broth in this food insert.

Don't pass on organ meats

Organ meats, also called offal, are highly nutritious. If you, like me,

just don't enjoy cooking with liver or heart, your dog or cat will love them. Often you can get the organ meats for the price of wrapping, but you may have to specify you want them before the animal is harvested.

Save time

Why not kill two proverbial birds (or even three) with one stone? When you make bison meatloaf, triple the recipe. Cook one for the evening meal, freeze a second one in a casserole dish ready to pop in the oven on a busy day, and make meat balls with the remaining third. Meatballs can be frozen in a heavy plastic bag, cooked or raw. Bison meatballs are perfect in stews or as spaghetti and meatballs. Or try the Asian meatball recipe in this insert. An additional tip: use a Sharpie to label the plastic bag with the contents, whether cooked or frozen, and the date. No one likes to find mystery items when cleaning out the freezer. If you are a long-term meal planner, put a meal using the frozen items on a menu plan or you may forget you have a meal ready and waiting! ♡



Cooking Bison Meat

The Basics

Bison or buffalo meat is similar to beef and is cooked in much the same way. The taste is often indistinguishable from beef, although bison tends to have a fuller, richer (sweeter) flavor. It is not “gamey” or wild tasting. Bison is very low in fat and cholesterol, and is high in protein, vitamins and minerals.

The leanness ensures that bison meat will cook faster. Fat acts as an insulator—heat must first penetrate this insulation before the cooking process begins. Marbling (fat within the muscle) aids in slowing down the cooking process. Since buffalo meat lacks marbling, the meat will cook more rapidly. Caution must be taken to insure that you DO NOT OVER-COOK bison.

Preparing Bison Meat

Preparing bison meat is comparable to preparing other lean meats. Food safety techniques should be followed. Wash hands with soap and water before and after handling raw bison meat. Use separate cooking utensils and plates for raw and cooked bison meat. Meat from bison is similar to beef. Bison tends to be darker red than beef.

Bison meat can be cooked much like lean beef, but generally is cooked at a lower temperature or for a longer time than typical cuts of beef. Since bison is lower in fat than other red meats, it is easier to overcook. Ground bison meat should be cooked to an internal temperature of at least 160°F and the juices should be clear, not red. Roasts and steaks should be cooked to an internal temperature of 145° F (medium rare) or 160°F (medium). The oven should be set at around 275°F. After cooking, eat the meat within three to four days, storing in the refrigerator. For best quality, cook ground bison within two days of purchase, and steaks and roasts with three to five days; otherwise, the meat should be frozen for future use. Bison meat can be kept in the

freezer for one year if properly packaged, double paper wrapped or vacuum sealed. If using zip top freezer bags, bison can be stored for 3 months. Bison meat can be substituted for beef in recipes. The National Bison Association has additional cooking tips and recipes available on its web site: www.bisoncentral.com.

Replace Beef With Bison in Your Favorite Recipes and Follow These Guidelines:

- When oven broiling, move your broiler rack away from the heat about a notch lower than where you normally broil beef steaks. Expect a buffalo steak to cook one-third faster than a beef steak. Bison steaks are best when cooked rare to medium to maintain the moisture and flavor of the meat. It is not recommended to cook buffalo meat past medium. However, if you prefer your steak to this degree of doneness, be aware that your buffalo steak may lose some of its desirable attributes.
- If you normally cook roast beef at 325°F, turn your oven temperature down to around 275°F for bison. Plan on the roast being done in about the same amount of time as with a comparable size beef roast. To ensure the temperature you prefer, we recommend using a meat thermometer indicating the internal temperature. Again, rare to medium rare is recommended.
- Ground bison is also leaner (ranging from 90-95% lean). It will cook faster so precautions must be taken to not dry out the meat by overcooking it. There is little shrinkage with bison burger—what you put in the pan raw will be close to the same amount after you cook it. Pre-formed patties tend to dry out just a little faster when grilling. (Hint: the thicker the patty, the juicier the burger). Medium-rare to medium is best. Although ground buffalo meat is leaner, there is no need to add fat to keep it from sticking to the pan or falling apart. ▽

Best Cooking Method For Bison Cuts

Gold – Most Tender

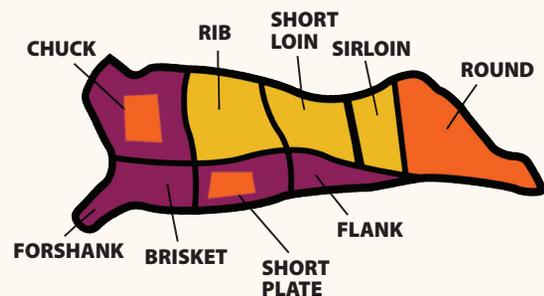
Tenderloin, Strip Loin, Rib and Rib Eye, Top Sirloin. *Cooking method:* dry heat

Orange – Medium Tender

Back Ribs, Bottom Sirloin, Sirloin Tip, Top Round, Bottom Round, Eye of Round, Skirt. *Cooking method:* combination of dry and moist heat

Purple – Less Tender

Chuck, Brisket, Flank, Shoulder Clod, Short Ribs, Stew Meat. *Cooking method:* moist heat



Broiling /Grilling: Steaks from the Tenderloin, Rib, Short Loin, Sirloin and Ground Meat. Start with a hot grill, cook hot and fast.

Braising: Roasts cut from the Round, Foreshank, Chuck or Flank. Moist heat cooking, using larger amounts of liquid and low heat.

Pan frying: Cubed or marinated steaks.

Marinating: Cubed meat or roasts that are not from the Rib or Loins.

Cooking in Liquid: Foreshank, Brisket, and Chuck, and cuts with little meat and a lot of bone (Back Ribs, Short Ribs).

‘Nose to Tail’

Carcass Utilization Program Highlights Bison Versatility

By Jim Matheson, NBA Assistant Director

The bison industry, not unlike the Native Americans who put all parts of the bison to good use, has always promoted and prided itself on finding ways to use the whole animal. Just as bison were historically utilized for everything from naturally nutritious protein to shelter to garments and everything in between, today’s farmers and ranchers are coming up with creative ways to leave little to nothing behind. And now, much to the delight of bison producers across the country, the trend has hit American restaurants.

Whole carcass programs, also referred to as “nose to tail programs,” are being embraced by more and more chefs across the country and proving to be a win-win situation for both producer and consumer. The trend appeals to restaurant guests who are looking to try new recipes and cuts, all the while supporting a zero-waste effort. Such programs also allow chefs and their teams to be creative while diversifying their menus. According to the Kachina Southwest Grill, based in the Westminster Westin hotel where the NBA used to hold its winter conference, this nose to tail approach is a cost-effective way for restaurants to source local livestock.

Kachina Southwest Grill partner and Executive Chef Michael Carr-Turnbough said, “It’s been a

great experience and very successful. At Kachina, with our Southwest and Native American focus, we are able to utilize all of the different cuts to be creative and resourceful. It’s also proven to be very educational for our chefs and their team in that it has taught them the art of butchery and utilizing underused cuts.”

Carr-Turnbough goes on to explain how the economics of a whole

Kachina’s nose to tail program work so seamlessly is the involvement of Colorado Cuts, essentially a broker who sources local, quality ingredients to restaurants and consumers. As Chef Michael explains, “Chefs are too busy, the ranchers are too busy, so the involvement of Colorado Cuts has been crucial to the success of this program.”

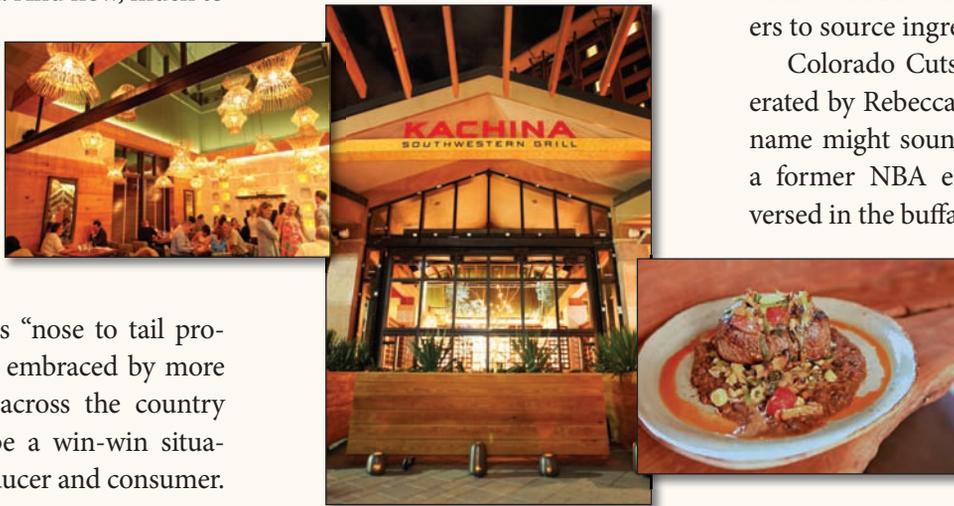
Kachina Southwest Grill works with over 12 local farmers and ranchers to source ingredients.

Colorado Cuts is owned and operated by Rebecca Pasquirello, whose name might sound familiar as she is a former NBA employee and well-versed in the buffalo business.

K a c h i n a Southwest Grill, in cooperation with Colorado Cuts, sources its bison from Debbie and Ray Thieman’s Pra-

irie Ridge Buffalo Ranch in Limon, Colo. Ray, a former U.S. Department of Agriculture Farm Service Agency employee, and his wife Debbie have been raising bison since 1998 on their family’s ranch just two hours east of Denver. The Thiemans’ buffalo have been a huge hit on the menu, as locavores continue to crave all things local on their plate, demanding high-quality products, such as Prairie Ridge Buffalo Ranch animals.

This past fall, the Thiemans invited the restaurant’s owners and chefs to



carcass program work to the restaurant’s advantage. “It’s also proven to be a great example of cost-utilization, in that it reduces our costs in some areas, the product is very fresh, and it gives us flexibility. We are able to dry-age cuts as we see fit in house. We’re able to dry-age our prime rib for 28 days before cutting them to steaks. We even cure our own brisket for corned bison. It’s all been a very positive experience.”

The missing link that has made

their ranch to tour the operation, eat some delicious food and share their respective passions. I was fortunate enough to join the group on this trip. The chefs asked good questions about Prairie Ridge's animals and operation, and the chefs prepared an amazing bison-centric lunch that was enjoyed by all. The relationship culminated in a "Meet the Rancher Dinner" at Kachina on the last day of this year's NBA Winter Conference, in which Ray and Debbie's family joined about 50 paying patrons to have a communal buffalo feast. The restaurant also featured local Avery Brewery in Boulder, which matched eight hand crafted beers with the four-course buffalo meal of unique bison dishes. The event sold out, and diners interacted with the Thieman family, me, and the brewers while they enjoyed a one-of-a-kind eating experience.

Just as consumers purchase whole animals to have a variety of meat cuts at an economical price, restaurants and chefs are now embracing the whole carcass approach for similar reasons. Kachina goes through about a carcass every other week, which forces the kitchen crew to be creative and have a menu that is continually evolving.

Asked if he has any problem getting through a carcass in that amount of time, Chef Michael said, "We do so much with it; we have no problem selling it. In fact, we would actually like to increase our supply. Beyond the primals, we use the offal for small plate dishes and appetizers, which is proving to be really good for folks wanting to experiment with new foods and menu items without having to invest too much. Our small plate offerings include bison liver and onions, liver pate, and tongue tacos."

The nose to tail movement is only expected to grow, as restaurant patrons continue to demand local, fresh, humanely raised food. In a recent article on the Chicago food blog www.chicago.eater.com, an entry outlines Chicago eatery Frontier Restaurant's participation in whole carcass programs and claims it to be a particularly good fit for "exotics," including bison. Here is an excerpt from this blog:

Says Frontier Restaurant's Executive Chef Brian Jupiter, "I appreciate farm-to-table, but I'm also going from the wild to the table," he laughs. Frontier's menu is known for its gamier options. "This is the way we were sup-

posed to eat," Jupiter explains, "Game is so much healthier; there are no hormones or antibiotics." So standing firmly behind that philosophy, he offers meats ranging from bison to boar in addition to more traditional options. But the jewel in the menu's crown is the whole animal service. On any given week, he is serving close to twenty whole animals and some Saturdays there will be eight or nine whole animals served. Pig is the most popular amongst diners, followed closely by wild boar, which is Jupiter's personal favorite. But Jupiter is always looking for something to keep his menu fresh for diners. "Whole pig alone wasn't adventurous enough for me," he says. (Source: <http://chicago.eater.com/archives/2013/05/09/where-to-head-for-a-beast-of-a-feast.php>)

What a great fit for bison! Our production protocols, along with the nature of this beast, dictate that the buffalo being served to consumers was raised without growth hormones or antibiotics and was humanely treated over the course of its life as required by the National Bison Association's Code of Ethics, which are available at the NBA's website, www.bisoncentral.com.

Bison- Nutritionally Superior

Bison is much lower in fat and calories than other meats, including chicken and salmon. Its protein content is similar to other meats, yet pound per pound, it is much higher in iron and somewhat higher in Vitamin B-12. Unlike other meats, all bison is raised without hormones or sub-therapeutic antibiotics.

NUTRITIONAL COMPARISONS

Per 100 Gram (3.5 oz.) Serving – Cooked Meat – Updated January 2013

SPECIES	FAT g	PROTEIN g	CALORIES kcal	CHOLESTEROL mg	IRON mg	VITAMIN B-12 mcg
BISON	2.42	28.44	143	82	3.42	2.86
Beef (Choice)	18.54	27.21	283	87	2.72	2.50
Beef (Select)	8.09	29.89	201	86	2.99	2.64
Pork	9.21	27.51	201	84	1.0	0.68
Chicken (Skinless)	7.41	28.93	190	89	1.21	0.33
Sockeye Salmon	6.69	25.40	169	84	0.50	5.67

(Per 100 grams of cooked lean meat with visible fat removed)

From the USDA Nutrient Data Laboratory - www.ndb.nal.usda.gov/fnic/foodcomp/

Consuming Bison Reduces Inflammation



By Erica Gradwell, MS, RD

more slowly over time and can be caused by either continued acute inflammation or prolonged low-grade inflammation. Since chronic inflammation generally results in the formation of new tissue, it can cause permanent tissue damage, such as in atherosclerosis and rheumatoid arthritis. While acute inflammation can be difficult to prevent, there are several nutrients that are associated with reduction of chronic inflammation: the amino acids, glutamine or

arginine; omega-3 polyunsaturated fatty acids; and antioxidants, such as the vitamins A, C and E, and the minerals, zinc and selenium.

Regular Bison Consumption Reduces Inflammation

Recent nutrition research reports that regular consumption of bison meat reduces inflammation in humans. In a randomized crossover trial published earlier this year, ten men were randomly assigned to two groups consuming either bison or beef for sev-

Studies show that regular bison consumption, compared to beef consumption, reduces inflammation in humans. One possible explanation for this is the higher content of selenium in grass-fed ground bison compared to grass-fed ground beef, since selenium has important antioxidant, immunological and anti-inflammatory properties, and has been linked to reduced risk of cardiovascular disease and cancer.

What is Inflammation?

Inflammation is the body's protective response that involves both the vascular and immune systems and can be classified as acute or chronic. Acute inflammation is characterized by pain, heat, redness, swelling and loss of function, and tends to be caused by sudden injury. Chronic inflammation, however, progresses

Nutrition Facts			
Serving Size (100g)			
Servings Per Container			
Amount Per Serving			
Calories 150	Calories from Fat 60		
	% Daily Value*		
Total Fat 7g	11%		
Saturated Fat 3g	15%		
Trans Fat --g			
Cholesterol 55mg	18%		
Sodium 70mg	3%		
Total Carbohydrate 0g	0%		
Dietary Fiber 0g	0%		
Sugars 0g			
Protein 20g			
Vitamin A 0%	Vitamin C 0%		
Calcium 2%	Iron 15%		
<small>*Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs:</small>			
	Calories:	2,000	2,500
Total Fat	Less than	65g	80g
Saturated Fat	Less than	20g	25g
Cholesterol	Less than	300mg	300mg
Sodium	Less than	2,400mg	2,400mg
Total Carbohydrate		300g	375g
Dietary Fiber		25g	30g
<small>Calories per gram:</small>			
Fat 9 • Carbohydrate 4 • Protein 4			

Raw Grass-Fed Ground Bison

Nutrition Facts			
Serving Size (100g)			
Servings Per Container			
Amount Per Serving			
Calories 190	Calories from Fat 110		
	% Daily Value*		
Total Fat 13g	20%		
Saturated Fat 5g	25%		
Trans Fat 1g			
Cholesterol 60mg	20%		
Sodium 70mg	3%		
Total Carbohydrate 0g	0%		
Dietary Fiber 0g	0%		
Sugars 0g			
Protein 19g			
Vitamin A 0%	Vitamin C 0%		
Calcium 2%	Iron 10%		
<small>*Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs:</small>			
	Calories:	2,000	2,500
Total Fat	Less than	65g	80g
Saturated Fat	Less than	20g	25g
Cholesterol	Less than	300mg	300mg
Sodium	Less than	2,400mg	2,400mg
Total Carbohydrate		300g	375g
Dietary Fiber		25g	30g
<small>Calories per gram:</small>			
Fat 9 • Carbohydrate 4 • Protein 4			

Raw Grass-Fed Ground Beef

en weeks (12 ounce servings of meat per day, for six out of seven days of the week), followed by consuming the opposite meat (beef or bison) for another seven weeks. Eating either bison or beef for seven weeks did not change body weight, percentage body fat or blood lipid profile, but after consuming the beef, blood samples showed that certain markers of inflammation were elevated: C-reactive protein levels were 72 percent higher and interleukin-6 levels were 59 percent higher than before the study began. However, while the men were consuming the bison for seven weeks, the values of these inflammatory markers did not change, leading the researchers to conclude that bison consumption results in a reduced atherogenic risk compared to beef.

Bison Contains More Selenium Than Beef

When looking at the Nutrition Facts labels for both raw grass-fed ground bison and raw grass-fed ground beef, it is easy to see that ounce per ounce, the nutrition in both meats

appears fairly similar, except for the fact that ground bison has a lot less fat (and therefore fewer calories) than ground beef.

But what these Nutrition Facts labels don't show are the essential antioxidant minerals, zinc and selenium. While zinc levels are not that different between bison and beef, raw grass-fed ground bison contains 20.0 micrograms of selenium per 100 grams, while raw grass-fed ground beef contains only 14.2 micrograms of selenium per 100 grams. There aren't many sources of selenium in the diet since fruits, vegetables and grains tend to be low in selenium. Major dietary sources

of selenium include Brazil nuts, meat, fish, poultry, and certain organ meats.

The Power of Selenium

Selenium has been shown to have important antioxidant, immunological and anti-inflammatory properties and has been linked to reduced risk of cardiovascular disease and cancer. Since selenium helps to counteract certain viral infections, supplementation with selenium enhances the immune response. In addition, in people who are critically ill, supplementation with selenium has been shown to reduce the severity of illness and complications due to infection, as well as the risk of death. v

¹ Dorland's Illustrated Medical Dictionary, 32nd Edition. Philadelphia: W. B. Saunders Co., 2011.

² Ferguson LR, Philpott M. Cancer prevention by dietary bioactive components that target the immune response. *Curr Cancer Drug Targets* 2007;7(5):459-64.

³ McDaniel J, Askew W, Bennett D, Mihalopoulos J, Anantharaman S, Fjeldstad AS, Rule DC, Nanjee NM, Harris RA, Richardson RS. Bison meat has a lower atherogenic risk than beef in healthy men. *Nutr Res* 2013;33(4):293-302

⁴ U.S. Department of Agriculture, Agricultural Research Service. 2012. USDA National Nutrient Database for Standard Reference, Release 25. Nutrient Data Laboratory Home Page, <http://www.ars.usda.gov/ba/bhnrc/ndl>

⁵ Huang Z, Rose AH, Hoffmann PR. The role of selenium in inflammation and immunity: from molecular mechanisms to therapeutic opportunities. *Antioxid Redox Signal* 2012;16(7):705-43.

⁶ Rayman MP. The importance of selenium to human health. *Lancet* 2000;356(9225):233-41.

⁷ Rayman MP, Rayman MP. The argument for increasing selenium intake. *Proc Nutr Soc* 2002;61(2):203-15.

⁸ Hardy G, Hardy I, Manzanara W. Selenium supplementation in the critically ill. *Nutr Clin Pract* 2012;27(1):21-33.

Three Sisters on Bison Tacos

Recipe created by Grica Gradwell, MS, RD

Named for the trio of corn, beans and squash that the Navajos call the "Three Sisters"

Makes 8 tacos

Directions:

In large skillet, cook the ground bison, squash, onions and garlic in the oil, stirring constantly. Drain any excess liquid. Add corn, beans and taco seasoning and cook until thoroughly heated.

Assemble tacos by placing filling in bottom of taco shell, and covering each with shredded lettuce, diced tomatoes, shredded cheddar cheese, sour cream and salsa.

Ingredients for taco filling:

1 pound ground bison
 1 cup peeled and cubed zucchini squash
 1 cup chopped onion
 2 garlic cloves, minced or pressed
 2 tablespoons olive oil
 1 can corn, drained
 1 can black beans, drained
 1 package taco seasoning mix

Taco Assembly and Toppings:

1 box (8 count) taco shells
 1 cup shredded lettuce
 1 cup diced tomatoes
 1 cup shredded cheddar cheese
 1 cup sour cream
 1 cup salsa

Find Culinary Inspiration on Food Blogs

This Osso Buco recipe was found on oniongogs.blogspot.com, a blog featuring some amazing and unique recipes. The bloggers really know how to cook! This recipe called for veal shank but was slightly modified for bison. There is an abundance of food blogs on the internet. Find one you like for new cooking ideas. ♪

Visit these blogs for recipe ideas and general information about bison.

blog.foodnetwork.com/fn-dish/2012/03/how-to-use-bison-meat/

www.wholefoodsmarket.com/blog/whole-story/bison---other-red-meat

realfoodbryn.wordpress.com/



Osso Buco with Sun Dried Tomato and Carmelized Onion Risotto

Recipe from oniongogs.blogspot.com

Ingredients:

4 osso buco (slices of bison shank)
2 carrots, diced
2 celery stalks, diced
1 onion, chopped
4 sun dried tomatoes, whole
3 cups white wine
2 cups of beef stock
1 tablespoon flour
1 tablespoon olive oil
1 teaspoon thyme
1 teaspoon rosemary

Gremolata:

zest of one lemon
2 cloves garlic, diced
1/2 tablespoon parsley, diced
1 teaspoon olive oil

Risotto:

3 onions, sliced
3 cloves garlic, diced
2 cups arborio rice
1 cup sun dried tomatoes, diced
2 cups stock + 2 cups water
1 tablespoon each olive oil and butter
1 cup grated parmesan

Directions:

Caramelize the onions in a frying pan with olive oil and butter. While the onions are caramelizing make the gremolata so that it can spend some time ... gremolating. Simply combine the ingredients in a small bowl or ramekin, cover and refrigerate.

Pre-heat the oven up to 350F. Dust the shanks in flour and brown them on all sides over high heat in a high sided oven-proof pan that's large enough to hold them. Remove to a plate and saute the carrots and celery in the same pan. When they begin to soften (2-3 minutes), add the onions, garlic, herbs and saute 2-3 minutes. Add the meat, stock and 2 cups of wine. Make sure the liquid almost covers the shanks. Cover and braise in 350° oven for 2 hours, reduce heat to 300 and braise for additional 4 to 6 hours until the meat is tender and falling off the bone.

To make the risotto, start at least 30 minutes before the osso buco is finished. Combine the water and stock in a saucepan and bring to a simmer. Reduce the heat to low to keep the stock warm. In a large pot add olive oil and saute the garlic on medium high heat until fragrant, add the rice and stir to coat. Slowly ladle in the warm stock while stirring. As the stock is absorbed, ladle more in while stirring so the risotto is always wet but not drowning in stock (stirring is the key to creamy risotto and the reason why Italian grandmothers will always beat you at arm wrestling). As it cooks, the starch starts to come out of the rice and the risotto takes on a creamy texture. Stop when the rice still has some bite and is a little al dente. Ideally the stock is gone when the risotto is done but you may need slightly more or less depending on how the risotto gods feel that day. Once cooked, thoroughly stir in the diced sun dried tomatoes, caramelized onions, and parmesan. Cover to stay warm and remove from heat.

Take the osso buco out of the oven, remove the meat to a plate and cover. Add the last cup of wine, bring to a boil then strain and discard the vegetables, reserving the tomatoes. Reduce liquid and tomatoes until the sauce thickens.

Layer a spoonful of risotto on a plate, top with meat and one of the tomatoes from the sauce. Drizzle with sauce, sprinkle with gremolata and serve.

Chef Pairs Classic French Cooking Techniques With Bison



State-of-the-art teaching kitchen (top) and classroom (right) at Colorado Culinary Academy.



Chef Andy Floyd is the general manager and executive chef at the Kitchen Table and academic director of the Colorado Culinary Academy. Floyd's Bison Hatch Green Chili recipe was served at the 2013 Winter Conference Luncheon, where he also gave a demonstration on how to prepare it.

The Colorado Culinary Academy is an accelerated and comprehensive professional culinary program designed to prepare the graduate to successfully enter the modern professional kitchen. It offers a twelve week program that is specifically designed to focus on culinary technique, theory and hands-on preparation.

CCA's curriculum is based on classic French technique. Students study the classics and are also provided modern insights into the world of cooking. Technology has affected all facets of our lives, and the new culinary professional must be trained on new technologies available in the modern kitchen. CCA strongly believes that French technique provides the best foundation for culinary education and that those skills can be applied to any global cuisine with success. For more information visit: www.coloradoculinaryacademy.org.

Bison Rib-Eye With Sweet Onion Relish and Roasted Fall Vegetables

Recipe by Chef Andy Floyd

Onion relish:

2 tablespoons olive oil
1 sweet onion, julienne
1/2 cup red wine
1/2 cup water
1/2 cup red wine vinegar
1/4 cup brown sugar
salt and pepper

Vegetables:

6 baby carrots
1/2 acorn squash, cut into large chunks
1 parsnip, cut into large chunks
1 cup celery root, cut into large chunks
olive oil to coat
1 tablespoon thyme leaves
salt and pepper

Bison:

2 bison rib-eyes
1/4 cup olive oil
2 tablespoons red wine
2 garlic cloves, minced
1 shallot, minced
1 tablespoon rosemary, chopped
1 tablespoon sage, chopped
1 tablespoon thyme, chopped
1/2 teaspoon red pepper flake
1/2 teaspoon cracked black pepper

Directions:

For the onion relish:

Heat the oil in a small saucepan. Add the onion and cook until softened and browned. Deglaze with the red wine and reduce by half. Add the water, vinegar and brown sugar. Bring to a boil, reduce to a simmer and cook until the liquid is reduced and the mixture is thick. Season with salt and pepper.

For the vegetables:

Preheat oven to 425°. Place vegetables and thyme in a bowl, add oil to coat, season with salt and pepper and combine. Spread mixture out in a single layer on a sheet pan. Place in oven and roast until lightly browned, about 20 to 30 minutes.

For the bison:

Place the rib-eyes in a shallow pan. Combine the remaining ingredients in a small bowl to combine and pour over the rib-eyes to coat both sides. Cover and refrigerate for a few hours. Preheat grill. Wipe off excess marinade and discard. Season both sides with salt and pepper and coat with a little oil. Place on grill and char both sides until an internal temperature of 125° is reached for medium-rare. Remove from grill, tent with aluminum foil and let rest a few minutes before serving.

Final preparation:

Place rib-eye on plate. Arrange vegetables on plate. Spoon the onion relish on top.

Serves: 2



Bison Recipes From Bison Lovers

National Bison Association Members and Staff Share Their Favorite Recipes

By Anita Shaver

If you have decided to purchase a large quantity of bison such as a half or quarter from a local producer, congratulations! You have joined a growing group of people who invest in a delicious, healthy product that is affordable. A quarter bison can be nearly a year's worth of meat for a family of three to four people. Having a nutritious protein source in your freezer is very convenient, but does require a bit of planning. A large roast needs to be removed from the freezer and put in the refrigerator to thaw 2 days before you want to cook it. All other cuts require about 24 hours. Less time is required for steaks that you want to slice thin or cube, because cutting partially frozen meat is easier than when it is fully thawed.

A quarter or half bison will have different types of roasts, tender steaks for grilling and less tender steaks, soup bones, etc. So what are you going to do with those unfamiliar cuts? The following collection of recipes are from bison lovers who have spent a good deal of time cooking bison and coming up with creative ways to use all those different cuts of meat. National Bison Association members, staff and a spouse or two have shared their favorite home cooked bison recipes on the following pages. ▽

BISON BROTH

The stew recipe on this page and many others in this booklet utilize bison broth as described on the adjacent page. Using homemade bone broth in your cooking elevates the nutritional value of the dish. Take note of the following recipes that call for broth. Bolster nutritional intake at every opportunity by using bone broth.

Bison Stew

Favorite bison recipe of Anita Shaver, National Bison Association Art Director



To me, having a homemade bowl of bison stew in the winter is like wrapping up in a warm blanket on a cold day.

Ingredients:

- 2 pounds bison stew meat or steak such as sirloin, cut into 1/2 inch cubes
- 3 russet potatoes, peeled and cut into 1/2 inch pieces
- 4 carrots cut into half inch lengths
- 2 cups peas or green beans
- peanut oil for browning the meat
- 1 cup flour
- 6 cups bison broth
- 4 cups of water
- 1/4 cup red wine, table or cooking
- several dashes each of Maggi and Worcestershire sauce
- 1 teaspoon cracked black pepper
- pinch of garlic powder
- salt to taste
- 2 cups of tomato puree

Directions:

- Toss bison meat in the flour to coat. Heat a large skillet (cast iron preferred) on medium-high with about two tablespoons of oil and brown the meat in batches, adding oil as needed.
- Put browned meat and all vegetables in a large stock pot. Add the broth and wine, then add the water, covering contents by an inch. Add more water as stew reduces if you like your stew more like soup or choose not to add it if you like it thicker. Cover and simmer for about an hour, stirring occasionally.

- Remove the lid and cook for an additional 30 minutes (or longer depending upon tenderness of meat), stirring occasionally. Taste and adjust seasoning to your liking and add more water or broth, if desired. Enjoy with buttered, soft rolls.

Note: If you are in a hurry and need a quick satisfying dinner, skip browning the bison and throw it in with the vegetables, liquid and seasonings in a Crock Pot® on low before you leave for work. Yummy deliciousness awaits you when you return home!

Don't Overlook Bone Broth

Essential Base to Many Favorite Bison Recipes
by: Marilyn Bay Wentz, *Bison World* Editor

There is a South American saying “Good broth resurrects the dead.”

Hyperbole though it may be, it is true that homemade, good quality broth is very nutritious. Consumed regularly, bone broth builds immunity to disease and has even been said to heal disease. Remember the healing power associated with grandma's chicken soup? It is the bone broth that provided a concentrated source of minerals and vitamins drawn out of the bones from long, low-heat simmering.

I can personally attest to the power of bone broth. I was brought up on what I call the farmhouse diet. We raised our own meat and eggs, had a milk cow, and we froze or canned vegetables and fruit from our garden/orchard. I don't think my mother viewed making bone broth as a way to increase immunity; it was more about not wasting anything. I confess I am not unlike my mother with a waste not mentality.

Due to my upbringing, I was in the habit of making bone broth for soups, sauces and gravies. In 2006, I had a life-threatening farm accident, completely dislocating my knee. During surgery to graft tissue to replace my ACL and PCL, I contracted a gram negative infection which was not detected until two and a half years later. While the infection ate away the tissue and some bone in my knee, ultimately resulting in my having to have a total knee replacement, my strong immune system probably kept me alive and otherwise healthy. (My strong immune system also contributed to the doctors not diagnosing the infection, but because that is not a strong argument for consuming bone broth, we won't discuss that further!)

In this day of convenience, shoppers often buy boneless meats, depriving themselves of the benefit of bone broth. According to Jen Albritton, CN, writing for the Weston A. Price Foundation, there is a storehouse of nutrients stored in animal bones, including calcium, magnesium, phosphorus and silica. It is a very concentrated multi-mineral source that supports the health and function of teeth, joints, digestion, as well as boosting immunity. Ramiel Nagel, author of *Cure Tooth Decay*, calls homemade broth one of the most potent medicines for reversing and preventing tooth decay.

The bones of traditionally raised animals, like buffalo, make nutritious, delicious broths. The taste and nutritional content of



homemade bone broth are in a completely different category from the canned broth or bouillon cubes on supermarket shelves. And, this nutrient rich broth is available free if you save bones on the meat you already buy or at little cost if you buy bones trimmed of meat.

But, who has the time to make homemade soup, let alone the homemade broth that goes into it? First, homemade soup is pretty easy if you start with a great broth. Second, making your own broth isn't as daunting as it may sound. Follow these simple instructions, and you can enjoy bison broth all year.

- Save the large bones from the bison meat you prepare by storing them in your freezer in an airtight container and/or use the soup bones that usually come as part of a half or full carcass bison purchase.
- Place thawed or frozen bones in a Crock Pot® or large stock pot and cover with water.
- Add 1-2 tablespoons white vinegar for each gallon of water.
- Add half an onion, a carrot and a rib of celery for each gallon of water. Salt, pepper, and herbs can be added, as well, although flavoring at this stage may limit end use.
- Put stock pot on a setting that creates a gentle simmer or turn Crock Pot® to low and simmer 12-24 hours.
- Pour cooled broth through a strainer into individual storage containers, such as re-used plastic sour cream or yogurt containers. Label and freeze for later use. ▽



Bison Tostadas

Meredith Rumsey
National Bison Association Member

Guacamole

- Place jalapeno directly on flame if you have a gas stove, rotate until charred on all sides, then remove from heat and let cool.
- Once cooled, peel charred outer layer off jalapeno. Remove seeds and stem. Place flesh in a bowl and mash to a paste.
- Cut avocado and scoop flesh into the bowl with the mashed jalapeno. Mix together with jalapeno.
- Add minced garlic, squeeze in the lime, mix. Taste and add as much salt as you like.
- Fold in cilantro.

Cooking the bison

- Heat the oil on medium, when hot add onions.
- Sauté until translucent (not browned). Add garlic and sauté 30 seconds, then add cumin, chili, garlic powder, and onion powder. Stir to blend the spices with the onion/garlic.
- Add the ground bison. Cook until the pink is gone. Salt and pepper to taste.

Assembling the tostada

- This is really personal preference, but I like to put the guacamole on the bottom; it makes everything stick better. Then add lettuce, meat, cheese, salsa, and cilantro.

Ingredients:

Tostada or taco shells
Grated cheddar or Monterey Jack cheese
Salsa (homemade or store bought)
½ cup cilantro (washed and roughly chopped)
¼ head of lettuce, chopped

1 teaspoon onion powder
1 teaspoon crushed red pepper (optional for added spice)
2 tablespoons high heat oil (grapeseed, canola or vegetable)
salt and pepper to taste

Guacamole Ingredients:

2 ripe avocados
1 jalapeño
2 cloves minced garlic
1 lime wedge
handful of cilantro, washed and chopped
salt

Tostada Meat

1 pound ground bison
½ onion finely chopped
3 cloves garlic
1 tablespoon cumin
1 tablespoon chili powder
1 teaspoon garlic powder

Sweet and Spicy Asian Meatballs

Meredith Rumsey
National Bison Association Member



Ingredients:

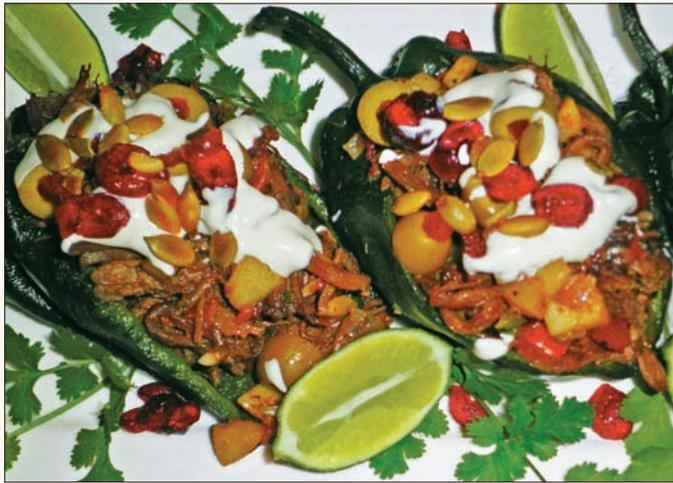
1 pound ground buffalo
1/4 onion (finely minced)
1 piece ginger the size of a quarter (finely minced)
3-4 cloves garlic (finely minced)
1-2 tablespoons fish sauce
1-2 tablespoons soy sauce
1-2 tablespoons sweet Thai chili
2 teaspoon sesame oil
1/3 cup cilantro (finely chopped)
1/4 cup basil (finely chopped)
1 egg (lightly beaten)
1/3 cup bread crumbs

Directions:

- Sauté onion, garlic, and ginger till softened. Set aside and let cool.
- Mix remaining ingredients with the ground buffalo then add sauteed onion, garlic, ginger.
- Form buffalo mixture into balls, slightly larger than golf balls. Place on a parchment lined baking sheet and bake at 400° for 15 minutes.
- Serve with rice and sweet Thai chilli for dipping. Also can be served with bibb lettuce as a wrap.

TIME SAVING TIP

Double the recipe. Cook all meatballs but place half of them in a zippered bag and freeze to use later.



Bison Brisket Chile Rellenos

Corey Harris
National Bison Association Member

Ingredients:

- 6 Poblano chiles
- 2-3 pound bison brisket
- 4-6 slices of bacon
- 4 tablespoons olive oil
- 1 onion, chopped
- 2 cloves garlic, minced
- 2 tomatoes, chopped
- 2 apples, peeled, cored and chopped
- 2 Jalapeno chiles, seeded and chopped
- 1/2 cup dried cranberries
- 1/4 cup pimento-stuffed olives, cut in half
- 1/8 teaspoon cinnamon
- 1/8 teaspoon cloves
- 1/4 cup pumpkin seeds, toasted

Directions:

- **Cooking the brisket:** rub the brisket with plenty of salt, pepper, garlic powder, cumin, dried oregano and Mexican ground red chile spice. Place bacon slices over the top of the brisket. Wrap tightly in plastic wrap and refrigerate overnight. When ready to cook, take meat leaving plastic wrap in place and wrap in foil. Place meat in preheated 250 degree oven for 4 to 5 hours. Check for doneness. If meat shreds easily, cool meat and shred.
- **Preparing the chiles:** rub chiles with oil. Place on a hot grill to char skins. Once skins are charred, put chiles in a bowl of ice water. Peel immediately. Keeping stems intact, make a slit in the side of the chile and carefully remove the seeds and veins. Stuff each chile with about 1/2 cup of the stuffing until well filled.
- **Preparing the filling:** Heat oil in a large, heavy skillet, and brown the meat; then add the onions and garlic. When brown, add all the other ingredients except the pumpkin seeds, and season to taste

with salt and pepper. Simmer gently, uncovered, until cooked for about 20 minutes.

- **Serving the Chile Rellenos:** once the chiles are stuffed, place in a preheated 350° oven until heated through. Serve the chile topped with Mexican crema or sour cream and a sprinkling of chopped cilantro.
- **Mexican Crema:** Early in the day, in a medium bowl, mix 1 cup heavy cream with 2 tablespoons buttermilk and set in a warm place overnight. Short Cut: mix sour cream with a little whole milk and salt and refrigerate until ready to use.

Wild Rice Bison Bake

Gail Harkey, Ph.D, Thermo Scientific
National Bison Association Member

Ingredients:

- 1 cup raw wild rice
- 2 cups water
- 1 tablespoon Better than Bouillon® beef base
- 2 tablespoons dried onion flakes
- 1 pound ground bison
- 1/2 pound fresh mushrooms, sliced
- 2 stalks celery, chopped
- 2 tablespoons olive oil
- 2 tablespoons soy sauce
- 1 cup dairy sour cream
- 1/2 cup slivered almonds
- Two cups bone broth (recipe p. 9) can be substituted for the water and bouillon.

Directions:

- Gently cook wild rice uncovered in water, bouillon, and onion flakes for 45 minutes, in a covered saucepan.
- Brown ground bison. Sauté mushrooms and celery for 5 minutes.
- Combine soy sauce and sour cream; add to cooked rice mixture



along with browned bison, mushrooms and celery mixture and most of the almonds, reserving some almonds for garnish. Toss lightly, place mixture in lightly greased 3-quart casserole.

- Bake at 350 F for 45 minutes, uncovered. Garnish with reserved almonds and return to oven for 15 minutes before serving. Serves 6.

Buffalo Meatloaf

Erica Cook, Cook's Bison Ranch

Favorite Recipe of Pete Cook, National Bison Association President



Ingredients:

- 2 pounds ground bison
- 1 cup fine dry bread crumbs
- 1/4 teaspoon black pepper
- 1/2 teaspoon seasoned salt
- 3 eggs
- 1/2 cup hickory flavored BBQ sauce
- 1 cup milk
- 1 cup shredded carrots
- 1 cup minced celery
- 1 cup minced onion

MEATLOAF LEFTOVERS

Meatloaf Patty Melt Panini: Caramelized onions and Swiss cheese join leftover meatloaf in a grilled sandwich on rye.

Nachos: Put bits of meatloaf and beans over chips, top with cheese and put it in the oven at 350° for 5-10 min. Serve with salsa, guac and sour cream.

Layerd Shepherd's Pie: Slice meatloaf thin. In a dish layer the meatloaf, leftover gravy then leftover mashed potatoes, repeat until the dish is full then top with cheese. Freeze for later or pop in the oven the next night.

Instructions:

- Beat eggs and milk together, add bread crumbs and seasonings. Mix well and let stand for a few minutes.
- Add the meat and vegetables, blend thoroughly.
- Spread the meat mixture evenly in a 9x13 inch pan. Spread your favorite BBQ sauce over meat mixture.
- Bake at 350° for 1 hour.
- Let stand 5 minutes before cutting.

Buffalo Standing Rib Roast

Favorite Bison Recipe of Dave Carter

National Bison Association Executive Director

Ingredients:

- 1 bison standing rib roast, any size
- 1/4 cup coarsely crushed pepper
- 1/4 cup coarsely crushed coffee
- 3-4 cloves garlic, minced

Ingredients:

- Preheat oven to 400°.
- Rub roast with olive oil. Then rub in mixture of coarsely crushed black pepper, coarsely crushed coffee, and minced garlic.
- Place roast in a roaster and loosely cover with foil.
- Place roast in oven and cook for 30 minutes. Turn oven to lowest setting (you may even want to turn it off) and keep the door closed.
- About 45 minutes before serving, turn the oven to 325 degrees, and cook until internal temperature is 140 degrees. Let rest for 20 minutes before serving.



LEFTOVERS

Not a chance! Just in case-slice leftover meat and put into a breakfast burrito or add to your favorite sautéed vegetables long enough to warm the meat. Serve with rice or noodles.

Jim's Bison Diablo Pot Roast

Eagle's Wing Ranch
National Bison Association Member

This recipe is meant to be cooked in a Crock Pot® or slow cooker. Serves 4-6

Ingredients:

3 pound bison pot roast
2 potatoes, peeled and sliced
1/2 large yellow onion, sliced
1/2 large green bell pepper
2 tablespoon horseradish mustard
1 cup bison or beef broth
2 tablespoons white flour
2 tablespoon Sriracha chile sauce
1 tablespoon Worcestershire sauce
1 teaspoon white vinegar
1 teaspoon apple cider vinegar
1 teaspoon sugar
1 tablespoon ground sage
1/4 teaspoon coriander



Directions:

- Place the potatoes, onion, and pepper in the bottom of the Crock Pot®. Add the broth and sprinkle with sage.
- Trim any excess fat from the roast. Make a smooth paste of flour, mustard, chili sauce, Worcestershire, vinegar, sugar, and coriander. Spread the mixture over the top of the roast (cut in half if necessary).
- Place the roast in the Crock Pot® directly on top of the potatoes, onions and peppers. Cover and cook on low for 6 to 8 hours. The leftover broth and vegetables make a delicious soup.

Chile Colorado

Favorite Bison Recipe of David Shaver (Anita Shaver's better half)

Chile Colorado is full of flavor, with chunks of tender meat in a rich red chile sauce. Chile Colorado is traditionally made with dried red chile pods. This recipe uses chile powder for the sake of time. There are many red chili powders available, ranging from mild to hot. It is easy to make this dish to your heat preference, depending upon what chili powder you use.

Ingredients:

3 pounds of stew meat or a less tender steak, cut into 1/2 inch cubes
4 cloves garlic, crushed
1 teaspoon each cumin, salt and pepper
1/2 onion-diced
4 tablespoons chile rojo (New Mexican chile powder)
1 tablespoons Ancho chile powder
6 cups beef stock
1 small can tomato paste

Directions:

Combine all of the ingredients except the bison meat and mix well. Put the meat and the mixture in a Crock Pot® on low heat for 6 to 8 hours. Ideally the sauce will be a fairly thick 'gravy' covering the meat, you can cook uncovered to reduce the sauce if needed.

About Common Chile Powders

Learn about different chile powders and buy in bulk at www.bulkpeppercorns.com

The New Mexican chile peppers are the most common chile peppers used to make the chile powders found in grocery stores. They have a great chile flavor with a moderate heat.

Ancho chile powder has the great chile flavor without all the heat. The flavor is complex with fruity undertones.

Guajillo chile powder has a bright red color and mild, fruity flavor with moderate heat. They are prized for the depth of flavor they add when combined with other types of chile peppers without adding much heat.

Chile de Arbol peppers are the preferred hot pepper of many Mexican cooks. These red hot peppers have a heat similar to cayenne peppers.



Break up the meat with a fork, spread on a tortilla, and add cheese for delicious quesadillas.



Serve on tortillas and your favorite topping with rice and beans if you like.



The National Bison Association

The National Bison Association (NBA) exists to promote the preservation, production and marketing of the American bison. As members of the NBA, we are proud stewards of both private and public herds, and are restoring this magnificent animal to the American landscape through our dedication to the health of the bison. We are great historians and love to tell our story and that of the American buffalo. We take advantage of every opportunity to educate the public and introduce people to their way of life.

We come from all 50 states and Canada and other foreign countries, and share a vision that the NBA is a community bound by the heritage of the American bison/buffalo and the quality of its products. Through participation and membership in the NBA, we engage the general public in our respect for the animal, and our love of the whole-

some nutrition of bison meat. Our association helps us to create tools to build our own production and marketing businesses. The NBA offers a vast assortment of resources for producers and the general public alike. We proudly share our knowledge of bison meat and our recipes through the NBA website. The NBA works in every arena to build a market that rewards quality and integrity. We bring together producers and consumers to celebrate the heritage of the great American bison and to create a strong future for the industry.

For membership opportunities and general information, please contact the National Bison Association.

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Visit us at: **www.bisoncentral.com**

