

Effective Beef Roasting for Food Service

The good news continues for food service operators... comfort food is still in! That means your clients are eager for a taste of home when they dine out, and roast beef fits the bill in a number of ways. People have less time to stay home and prepare meals, so being able to choose a meal that reminds them of their own home cooking is a welcome item on your menu. And according to recent polls, a majority of Canadians agree that they are "limiting the amount of carbohydrates they consume to avoid gaining weight." Limiting carbs means stocking up on the protein, and that means more cravings for good old-fashioned prime rib and other cuts of roast beef.

Beef is still the number one choice of your clients when they're dining out. They say nothing matches the taste of beef. So, give your customers what they want, and increase your profits at the same time. Roasts are versatile and you can transform them into many different menu items.



The Roasting Brochure was developed by the Beef Information Centre, a not-for-profit education and promotion organization representing Canada's beef producers. For more information visit us at our website. Beef Information Centre ©2004

Food Safety When Cooking A Roast

Thawing Roasts

To thaw a frozen roast, do it slowly in your cooler at a temperature of 4° C (40° F) or less. This way the ice crystals in the beef melt slowly and the end result is a flavourful, more juicy product that will produce a higher yield. Never re-freeze thawed beef and rotate your inventory on the first-in, first-out system.

Cross-contamination Issues

Wash and sanitize all equipment and preparation surfaces that have been in contact with raw meat before going on to the next task. If using a slicer to slice roast beef make sure it is clean and sanitized before you slice. You and all of your food handlers must wash hands properly with soap and warm water after any task. If any food handlers have cuts on their hands or arms, they must not handle food or cookware unless the cuts are properly covered. If the cuts are infected, the workers should not be involved in food preparation until their injuries have healed.

Raw meat items must not come into contact with ready-to-eat foods such as salad or sandwich ingredients. Ideally, you should have two separate preparation areas.

When storing cooked roast beef, make sure it's covered and store it above raw meats to prevent cross-contamination.

Storage and Cooling

Raw, fresh roasts can be stored in a meat cooler at -2° - 0° C (28 - 32° F) or in a general cooler at 1 - 2° C. You can store unopened vacuum packages of roasts for 1 - 2 weeks, but once the package is opened, storage drops to 2 - 4 days.

Raw, frozen roasts can be kept in a freezer at temperatures below -24° C (-10° F), and in a general freezer at temperatures less than -24° C (-10° F). Storage time is between 6 and 12 months.

Keep cooked roasts at 60° C (140° F) or higher until served.

To refrigerate cooked roasts, they should be rapidly chilled, cutting larger roasts into smaller pieces so they cool faster. Once cooled, cover them with plastic film.

Make sure the roasts are cooled from 60° C (140° F) to 20° C (70° F) within 2 hours or less and from 20° C (70° F) to 4° C (40° F) in the next 4 hours of less. (BC Ministry of Health Guidelines, 1999).



The Right Roasts

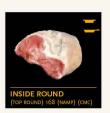
It's important to choose roasts according to how they are going to be used and what kind of yield you're looking for. Characteristics you should consider include how much fat will be included on the outside of the roast, whether the roast is bone-in or bone-out, how much connective tissue you can anticipate and ease of carving the roast against the grain.

The common specification for outside fat trim is about a 6 mm (1/4 inch) trim on roasts cut from Canadian beef. Some fat is needed to keep the meat moist while cooking. This is especially important for cuts from the hip, which have less marbling. At the same time, the fat should be of consistent thickness all around the roast. Here are some great selections for food service roasting:



BOTTOM ROUND FLAT – This cut comes from the hip. The eye of round and connective tissue are removed from a bottom round flat roast, which results in a much higher yield than a traditional bottom round (also known as a gooseneck). The uniform shape of the roast means even cooking,

and there is little trimming required. The grain is consistent from end to end, so carving is easy, and a great cut for sandwiches or roast beef dinners. Weight range: 6-8 kg.



TOP ROUND – Another hip cut, the top round roast is a perfect choice for a buffet because of the size of the cut and higher marbling than the bottom round roast. Most top round roasts are between 11 and 12 kg. You need to take care to make sure you're carving this roast across the grain, as

these roasts have muscles that run in various directions. Carving with the grain will cause beef to be tough – carve across the grain.



TOP SIRLOIN – Top sirloin roasts are most often cut into individual steaks but this muscle has a higher level of marbling combined with a smaller size to make it one of the higher-end roasts on your menu. Because the cap muscle grain runs in the opposite direction from the

main muscle you need to make sure you cut it in the correct direction, adjusting your carving when the grain changes. Weight range 6 - 8 kg.



STRIP LOINS – Slow roast this premium cut to maintain the yield. A strip loin roast is leaner than prime rib, so it could be added to a high-end buffet as a lowerfat alternative, or sliced for individual plate service. Weight range: 5 - 8 kg.



TENDERLOIN – Tenderloin is one of the most popular cuts, well recognized by restaurant guests for its quality, flavour and tenderness. The consistent size and ease of carving make this a premium choice for roasting. Roasting tenderloin requires care and attention as this cut does not have the

same degree of marbling and will dry out quickly if over cooked. Sear the tenderloin at a high heat, then roast slowly, remember the roast will continue to cook after it has been removed from the oven so cook 5 - 10° F below your desired doneness (no more than medium). Weight range: light between 1.6 - 2 kg and heavy between 2 kg and up.



TRI TIP – The tri tip is a hidden gem from the bottom sirloin. It has the same flavour characteristics as the top sirloin with a high cook yield and minimal cutting loss. When roasting, place fat side up in a roasting pan, season and put in a slow conventional or "cook and hold oven."

The small uniform size ensures an even and relatively quick roasting time. Slice across the grain for maximum yield and tenderness. Weight range is 1.4 - 2.7 kg (3 - 6 lbs).

Calculating yields is the best way for you to get a fix on what the real costs of a menu item are. Make sure you capture the raw weight (subtracting any purge), the cooked weight (once the roast has rested) and the portion weight (to capture carving loss). See the example.

8.	TOP ROUND (INSIDE ROUND)	7.4 kg	
Raw weight	11.2 kg		
Price	\$7.17	\$5.69	
Oven temp	325° F	325° F	
Cooking time	3hr 45min	3hr	
Cooked temp (doneness)	145° F med rare	145° F med rare	
Cooked weight	8.5 kg 24.1% cook loss	5.6 kg 24.3% cook loss	
Carving loss	1.1 kg 9.8%	.4 kg 5.4%	
Total usable yield	7.4 kg cooked cost per kg \$10.85	5.2 kg cooked cost per kg \$8.10	



PRIME RIB – Prime rib is still considered the "King of Roasts." A great cut, but not an inexpensive one, it is important to maximize the yield (or the saleable portion). Purchasing the right specification of rib and cooking it correctly will determine the yield on this product. In the past, chefs felt it

necessary to place fat caps over the meat to maintain juiciness and flavour; today the need for fat caps is not necessary given the increased marbling and modern oven technology. As for purchasing bone-on prime rib, some operators believe having the bones on adds additional flavour.

Others like to use the bones later as entrée specials or in the lounge.

While the bones are tasty, purchasing a bone-on rib decreases the yield and increases the cost per serving. Operators who want to offer beef rib bones can purchase them separately, at substanial savings. The best value in purchasing ribs is to look at the yield not the price.

The Beef Information Centre, along with the Southern Alberta Institute of Technology (S.A.I.T.), conducted yield tests on several types of ribs. After factoring in the loss of the bones, the lip-on rib eye had the best yield of the ribs tested.

STYLE OF RIB	RAW WEIGHT	COOKED WEIGHT	USEABLE WEIGHT	COOK LOSS %	TRIM LOSS	TOTAL LOSS
250° F						
Banquet Style	7.6 kg	6.97 kg	4.91 kg	8.3%	27.8%	35.4%
FCO	7.0 kg	6.3 kg	5.2 kg	10.6%	19.2%	29.2%
Lip-On Rib Eye Boneless	5.94 kg	4.68 kg	4.13 kg	22.0%	9.5%	31.3%
350° F						
Banquet Style	7.65 kg	5.78 kg	4.33 kg	24.7%	19.0%	43.6%
FCO	6.82 kg	5.21 kg	4.07 kg	23.7%	16.7%	40.3%
Lip-On Rib Eye Boneless	6.4 kg	4.45 kg	3.69 kg	31.0%	11.8%	42.8%

ALL PRODUCTS WERE COOKED TO AN INTERNAL TEMPERATURE OF 140° F AND GIVEN 30 MINUTES OF REST TIME BEFORE TRIMMING. CONVECTION OVEN WAS SET TO 350° F (175° C) AND THE LOW TEMPERATURE OVEN WAS SET TO 250° F (120° C).

Garlic-Studded Roast Beef with Roasted Roma Tomato Sauce

Roma Sauce

10 medium plum (Roma) tomatoes, cut in half lengthwise and seeded

2 garlic cloves, pressed

4 tbsp (45 mL) olive oil

salt and pepper

1 cup 250 mL beef stock

2 tbsp (30 mL) grated Parmesan cheese granulated sugar

granulated sugar chopped fresh basil

Roast

5 lb 2.2 kg

inside round or bottom flat beef roast – cut from whole muscle, trimmed but leaving 1/16 inch fat on top

8 to 10 garlic cloves, cut into thick slices

1 tbsp (15 mL) Italian herb blend

For the sauce

1. Place tomatoes cut-side-up on a parchment-lined baking sheet. Combine garlic with 2 tbsp (30 mL) of olive oil. Brush on the tomatoes; season with salt and pepper. Roast 1 1/2 hours at 250° F (120° C).

2. Place the roasted tomatoes in a food processor container; purée while adding hot stock to make a sauce. Season with salt, pepper and sugar, to taste. Add Parmesan and stir in the basil to taste. Set aside. Makes 3 cups (750 mL).

For the roast

- 1. Cut deep, narrow slits into roast and insert garlic slices into them. Brush the roast all over with remaining olive oil; season with salt, pepper and Italian herb blend. Place roast fat-side-up on a rack in a roasting pan.
- 2. Roast at 325° F (160° C) until meat thermometer reads 135° F 145° F (57° C 63° C), for rare to medium-rare (about 1 1/2hours to 2 hours or 18 21 min/lb or 40 47 min/kg).
- 3. Rest the roast 10 15 minutes. Thinly slice and serve on a pool of the warm roasted garlic tomato sauce. (About 1/3 cup / 75 mL sauce per serving).

Recipe serves 10





Making the Most Roast of your Roast

Following a few simple tips for cooking and carving will make sure you get a moist, tender and flavourful product offering maximum yield.

- Get heat all around the roast. Use a rack in the roasting pan, or place the roast on a mirepoix of vegetables to allow heat circulation under the roast. Don't use a pan too small for the roast and leave some room around the sides.
- 2. Low and slow is the best way to roast. Don't rush a roast! The higher the roasting temperature, the lower the yield, as the high heat drives off valuable moisture. If you have a cook and hold system in your operation this can really enhance your yields, but even conventional ovens set to roast between 250° F to 325° F (120° C to 163° C) can give you good results.
- 3. Watch the internal temperature of the roast as it approaches the desired degree of doneness. Once you take the roast out of the oven, it continues to cook, and can rise between 5° F and 10° F (3° C to 7° C) depending on the size of the roast and the cooking temperature. Plan the temperature rise into your timing. A roast that is cooked medium in the oven could be well-done by the time you let it rest.
- Roasts are considered to be cooked rare when the internal temperature reaches 60° C $(140^{\circ}$ F), medium at 68° C $(155^{\circ}$ F), and well-done at 77° C $(170^{\circ}$ F). To check the temperature, insert a thermometer away from bone, gristle or fat and leave it in for at least 30 seconds to get an accurate temperature. On large roasts, you may want to check the temperature in more than one location, and make sure you clean and sanitize the thermometer between your checks and when you're checking other foods.
- 4. And you should let it rest! The muscles in the roast will relax, making it easier to carve and keeping it juicy. Larger roasts need more resting time than smaller ones.
- 5. Carving is the final step in making sure your customer enjoys his or her roast beef. If you're serving diners at a buffet, have a solid table to carve from, with a tray to catch juices, and sharp carving knives. Carve across the grain for tender slices of meat, and as the direction of the grain changes, adjust your carving to the new direction.

Hot Menu Ideas for Roasting

Beef roasts offer one of the most versatile ways to add something interesting and profitable to the menu. And while there is nothing more satisfying than a delicious roast beef dinner, there are many other interesting ways to serve roast beef – try one of these sandwich ideas.

Sensational Sandwiches

Time to go beyond your basic beef dip. Try some creativity around the bread and condiments used and find a wonderful array of beef offerings your customers will love.

Tuscan beef wrap

Take thinly sliced roast beef, layer on a tortilla shell, then spread with Caesar dressing, top with shredded romaine lettuce and diced tomatoes and you have a new take on roast beef wraps.

Crusty French Beef Parisian

A new take on the traditional beef dip – toast a crusty French roll or baguette. Spread with a blend of mayonnaise, finely chopped garlic and horseradish then layer on fresh hot roast beef, sautéed red onions. Serve with a red wine enriched au jus. Bon appetite!

Living on the Wedge

Create a new menu item by taking a large round crusty sourdough loaf cut in half lengthwise. Spread mustard on

one side and a thin layer of horseradish on the other. Layer on your home roasted beef, top with Swiss cheese or provolone. Cut loaf into pie shaped wedges and serve with a fresh salad, pickles and tomatoes.

The BFT

Use a crusty roll or unique bread like slices of sun-dried tomato loaf. Spread with a garlic herb butter, layer on thinly sliced roast beef, top with fresh sliced tomatoes and sprinkle with feta crumbles. Serve with a light fresh salad.

South of the Border Quesadillas

Layer a tortilla with fresh roast beef, top with spicy banana peppers, sautéed red onion, grilled peppers and Monterey Jack cheese. Finish on a hot flat top and cut into wedges. Serve with salsa and guacamole.

