Protecting Protein in a To-Go Environment

Chef Timothy Murray, RDS Foods

When it comes to the To-Go environment, it is important to choose a protein 'cut' that can handle the To-Go situation for up to 27 minutes. Below are the pros and cons of each cut relative to its ability to 'hold up' under the To-Go stress.

US Meat Cut	Picture of wholesale	Pros	Cons
Beef Tenderloin Filet (8 oz / 227 g)		 High in myoglobin—aids in bloom of color even if cooked to higher temperature #1 in tenderness 	Due to larger diameter of the tenderloin, steaks can be somewhat thin (1.5" / 3.8 cm). A thin steak will tend to be overcooked and dried out.
Beef Flat Iron/Shoulder Clod Top Blade (8 oz / 227 g)		 Well-marbled 2nd in tenderness Good amount of myoglobin 	 Very thin at 0.5 – 0.75" (1.27 – 1.9 cm) Can develop a 'livery' note/taste if overcooked
Beef Teres Major/Shoulder Tender/Petite Filet (8 oz usually steaked in twin filets of 4 oz each / 114 g)		 5th in tenderness High amount of myoglobin Eats similar to filet mignon Small diameter allows for thicker steak at 2 – 3" (5 – 7.5 cm) which aids in thermalization 	 Eats on the leaner side Can develop a 'pot roast' note/taste when overcooked
Beef Top Sirloin center cut (8 oz / 227 g)		 Moderate myoglobin When steaking, request a small diameter 'baseball' or 3-way, no-seam 'log' for a thicker steak at 2 – 3" (5 – 7.5 cm) which aids in thermalization 	Eats on the lean side
Beef Bottom Sirloin Ball Tip Steak (8 oz / 227 gm)		Value of cut/price	 Low in myoglobin along with knuckle, tritip, eye Round, so there is not as much forgiveness in color when cooked Very thin as steak (1/2")

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Beef (NY) Strip, boneless (8 oz / 227 g)		Popular for its steak flavor and texture	 Due to large diameter of the strip loin, steaks can be very thin at 0.5 – 1" (1.27 – 2.5 cm) Note: to overcome thin steaks, split entire loin in half lengthwise & cut thick steaks— will reduce diameter, increase thickness while maintaining the same weight which will aid in thermalization
Pork Loin Chop, Bone-in (10 oz / 283 g)	PORTERHOUSE SIRLOIN CHOP DISTURSION CHO	Bone protects and maintains moisture	 Large diameter results in a thin cut at 0.5 – 1" (1.27 – 2.5 cm) which makes it easy to be overcooked and dry Note: to solve, try a boneless loin which at 8 oz (227 g) will be thicker at 2 – 3" (5 – 7.5 cm)
Pork Tenderloin (8 oz / 227 g)	and the second sec	 #1 in tenderness Small diameter allows for thicker chop at 2 – 3" (5 – 7.5 cm) and aids in thermalization 	 Expensive compared to Loin. Could be upto 75% increas
Lamb Rack, 4 bone (14 oz / 397 g)		 4-bone rack creates a thick, mini-type roast at about 3 – 4" (7.5 – 10 cm) which aides in thermalization Bone-in protects and maintains moisture 	 Within the 27 min of the To-Go environment, the exterior fat can have a negative eating experience when it gets below 95° F. (35 C.)

Tips for To-Go Success

Cut Selection

- Choose a protein cut with a smaller diameter to improve the thickness. A cut that is 2-3" (5-7.5 cm) will have a better chance at holding temperature (not continuing to cook).
- Myoglobin: This protein contains the red 'bloom' that helps retain the color even if slightly over cooked. Younger animals have less myoglobin. The myoglobin in older animals tends to turn a deep red and to most customers is identified as something not what they typically consume. Steaks with high myoglobin are Tenderloin, Flat Iron, Teres Major (Petite Tender). Low myoglobin is found in the bottom sirloin ball tip and tri-tip along with the eye of round and knuckle (which contains the same muscles as the ball tip.

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Meat Preparation

• Before any Searing/cooking, make sure the cut is dry (free of moisture). Do not rinse meat. Pat it dry with a paper towel or air dry on cooling rack.

Chargrill/Broiler

• If using this method and slightly undercooking, remember to use a thermometer to cook to temperature. Cooking by time or feel creates inconsistent doneness. Do a quick training session, and hand-out pocket thermometers to ensure the protein maintains desired doneness for 27 min.

Banquet Method

• Same recommendation as Chargrill/Broiler, a quick training session and hand-out pocket thermometers to ensure the protein maintains desired doneness for 27 min.

Sous Vide Method

- Searing at the beginning, and just before plating is preferred in commercial operations.
- It is critical to dry the protein before searing, especially on the 2nd sear after the protein has been under vacuum.
- Season the protein on the 2nd Sear, just after drying. Seasoning before the water bath can result in an over-seasoned protein after cooking in the water bath over 1.5 hrs.
- The water bath temperature is the highest temperature the protein will obtain externally and internally.
- The thicker the protein, the longer it will take for thermalization to reach the core of the protein. Use the sous vide chart as a guide, and verify results.

Packaging

- Key is to maintain temperature or allow to cool slightly during the 27 min lag time
- Avoid adding other items with a higher temperature than the protein (i.e. French Fries 350°F / 23°C). The package will cause the meat to continue to cook and result in an overcooked protein.
- Try to add something to absorb heat and aide in thermalization. A simple cooked (fried or steamed) potato slice (1-1.5"/ 2.5-3.8cm) under the meat will allow natural juices to be absorbed and allow the external heat of the protein to heat the potato and assist in slowing the internal cooking of the meat.
- With wrapping the meat, make sure the wrap allows the cooked protein to 'breath' to avoid creating a steam environment which will overcook it and affect flavor. Avoid foil and items that have a wax side.
- Offer sauce or au jus so the customer can reheat and use to warm the meat slightly by dipping. Reheating a protein will result in a greater chance of overcooking.
- Communicate: Nothing is more important in this 'New Normal'. Take a moment to acknowledge the lag time and offer personal recommendations. Let your customer know the chef has paid attention to and has made adjustments for their benefit. It is easier for the customer to reheat sides and sauces, than reheat a protein.