

# BCM MONTHLY UPDATE

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## MEAT COLOR - THE REAL STORY

**Myoglobin:** a water-soluble protein that stores oxygen for aerobic metabolism in the muscle. It consists of a protein portion and a non-protein porphyrin ring with a central iron atom. The characteristic color of myoglobin is a deep purplish-red.

**Oxymyoglobin:** myoglobin that has been oxygenated (exposed to oxygen). Characteristic color is bright cherry-red.

**Metmyoglobin:** myoglobin or oxymyoglobin that has oxidized causing a loss of an electron (chemical reaction from the exposure of the central iron atom to oxygen). Characteristic color is brown.

All three states are present in red meat at all times; the color of meat is dependant on which state dominates at a given time.

Meat color can change back and forth between these states on a limited basis so long as enough myoglobin remains to combine with oxygen (forming oxymyoglobin) to cause the cherry-red color to return. Once a majority of the myoglobin has lost its electron, the product color will not revert back to the cherry-red color of oxymyoglobin.

Other factors that contribute to meat color include the storage temperature of meat, the muscle involved, the animal, the age and the packaging.

The conversion of myoglobin to oxymyoglobin can be seen almost immediately at cutting. The conversion to metmyoglobin is also very quick, often in as little as a few hours. The conversion of metmyoglobin backwards is rather difficult and is dependant on the amount of unchanged myoglobin that remains.

Cold storage temperature will significantly reduce the ability of meat to convert myoglobin to oxymyoglobin, thus aid in retaining the brownish color indicative of metmyoglobin once it has formed.

Myoglobin concentrations are higher in muscles that are used more frequently and in muscles from older animals, thus giving these muscles the ability to retain the bright cherry-red color for a longer period.

Vacuum packaged product will also retain the brownish color indicative of metmyoglobin due to the reduced oxygen inside of the package. However, vacuum packages will not eliminate the oxygen contact with the meat and there for the chemical process does continue at a much slower rate.

The older the animal is postmortem, the less myoglobin that remains. Therefore, aged beef will not retain the bright cherry-red color for as long as non-aged beef.

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So, what does this mean for Byron Center Meats fresh cut beef steaks? Let's take a look:

1. We use 21 days aged beef (28 days for natural beef).
2. All of our products are vacuum sealed for freshness.
3. All products are maintained at very cold refrigerated temperatures to maintain freshness throughout the process.

This results in the Byron Center Meats beef steaks being more susceptible to the brownish color indicative of metmyoglobin. Apparently, flavor, tenderness, freshness and food safety do come at a price. BUT...

**Remember...Don't judge a steak by its color!**

## BYRON BUTCHER HIGHLIGHTS

### *Lombatello Steak*

Perhaps you've not heard of the lombatello or the onklet. How about the solomillo de pulmon? These are all names for an increasingly popular steak that traditionally has been a favorite in many parts of Europe. This steak is very tender with an extremely robust and intense flavor that is best when cooked quickly over high heat to rare or medium rare.

This unique steak has a grainy texture and although it isn't portion cut, it is well trimmed and perfect for a variety of applications from a breakfast steak to shish kebobs to an appetizer and even a main dish.

This steak has also been called the "butcher's steak" because butchers would often keep it for themselves rather than offer it for sale.

Perhaps you have heard of this steak! Did I forget to mention it's also called the Byron Fireside Filet.

Keep in mind the following:

1. Color alone is not indicative of freshness, quality or food safety. This perhaps is the worst indicator when used alone.
2. Spoiled meat will have an obvious off odor and be sticky/slimy in addition to discoloration.
3. Most meat can retain its cherry-red color for a longer period when used in conjunction with other methods such as MAP packaging, added supplements, warm processing or storage temperatures, non-aged beef and poorly vacuumed packaging (not always visible to the naked eye).

**Rest assured; Byron Center Meats Beef is of the highest quality. We've made the utmost commitment to taste, tenderness and food safety.**

Have a Question - Give us a call anytime! 616.878.1578

Well Trimmed with main center seam removed. Not portion cut. Bulk packaged.



Please see The Steak of Many Names on the next page.

## THE STEAK OF MANY NAMES

Although many believe this tremendous steak of many names needs no adornment except light salt and fresh pepper, others still prefer to add a little something extra. With that in mind, here are a few ideas that anyone is free to use...

### Quick and Basic -

Massage a little olive oil into the steak and let it reach room temperature.

Sprinkle both sides with sea salt and pan sear to medium rare.

Remove from heat, pour any remaining juices from the pan over the steak and grind black pepper onto both sides.

Cut across the grain and serve.

### Beurre de Shallots -

1 tablespoon unsalted butter

2 tablespoons shallots, thinly sliced

2 tablespoons dry white wine.

- 1) In a small sauté pan, melt the butter over low heat. Add the shallots and cook for about two minutes, until they are soft but not colored.
- 2) Add the wine, increase the heat and cook a minute, until most of the liquid has evaporated. Spoon onto a 1-pound hanger steak and serve. (The butter can be made in advance and reheated.)

### Red Wine Steak Sauce -

1 cup red wine

1 tablespoon chopped shallots

Sprig of thyme or pinch of dried thyme

1 bay leaf

2 teaspoons demi-glace or ½ cup beef stock

2 tablespoons unsalted butter

- 1) In a small nonmetallic saucepan, boil the cup of red wine (preferably the kind you will drink with the meal) with the shallots, thyme and bay leaf for about 10 minutes, until it has reduced to 1/2 cup.
- 2) At the same time in another small pot, boil down the beef stock, if using, until it has reduced to a syrupy 2 tablespoons; about 5 minutes.
- 3) Add the stock reduction (or 2 tablespoons demi-glace) to the reduced red wine. Over medium heat, gradually whisk in the butter until the sauce has thickened. Pour over a 1-pound hanger steak and serve. (The sauce can be made in advance and reheated.)

# YOUR CHOICE

## Byron Center Meats Product Lines

Certified Angus Beef (CAB) - Premium Angus Beef. No other Angus Program compares.

Byron Center Meats Natural Beef - Top of the line Natural Beef. With enhanced aging and a unique feed program, our Natural Beef provides unbelievable tenderness and a taste bud explosion. Never any growth hormones!

Imperial and Classic - Traditional beef with a twist. Cattle are calf-fed with a minimum of 300 days of grain. Greater lean without sacrificing the taste you love and the tenderness you crave.

Native Choice and Native Select - Old style beef aged to perfection. Also known as a "Packer Brand". With our guaranteed aging and exacting specifications, our native beef outperforms the competition.

Ranch and Grill - Our premium No-Roll beef. Increased quality at an economical price.

White Marble Farms Pork - Old world premium pork. For the pork lovers who desire tenderness, flavor and juiciness, this is the pork of choice.

Byron Center Meats Pork - Quality pork at a reasonable price, our standard pork that will bring your customers back for more.