

### **There are many potential causes of bad taste in meat.**

A basic problem with understanding “off” tastes, flavors or scents of any kind is that the detection and response to these tastes is highly personal and subjective.

Bad tastes or bad flavors are frequently termed “**gamey**” or “**off.**” Correctly speaking, a gamey taste is associated with wild game. Most people think of venison as gamey. Gamey does not necessarily mean bad although it probably does when used in reference to non game animals such as beef.

Bison meat could technically be considered gamey because bison are wild. Very few people would describe bison as gamey however.

Some people detect and are offended by a “**liver**” flavor or scent in meat.

To further complicate this, some people detect off tastes in meat while other people eating the same meat do not.

Liver flavor in beef is a complex phenomenon without a clear cause. It may or may not also be termed “gamey” or “off.” Several factors have been associated with it. In general, those who detect it do not like it.

Taste is highly subjective.

Following are some possible causes of bad tastes in meat and steps to minimize those tastes:

1. The unique **taste of liver** and what most people may mean when they say something tastes like liver apparently comes from the high iron content of that organ. The hemoglobin in blood also has high iron content. Bloody meat could be a cause of livery taste.

I take great care during harvest to eliminate blood from the carcass. Quality Meats also does so during butchering and hanging of the beef carcass.

Blood in your meat is not a factor.

The myoglobin in healthy, well used muscles is also high in iron. (e.g. beef top blade, beef round). It is conceivable that some people are so sensitive as to detect a “liver” flavor from grass fed meat from that reason. I can find no data that supports that idea, however.

Consider using recipes that include the use of herbs and spices (masking effect).
2. **Overcooking can cause poor taste.** Meat should always be moist when served. When cut at eating, a reddish liquid should come from the meat. That liquid is water and myoglobin. If the meat is cooked to dryness, several bad things happen. The myoglobin was probably heated away, and that of itself may leave a bad flavor.

In addition, dry, over-heated meat may have a poor or bad taste as the elevated temperature denatures protein.

Avoid overcooking. Never cook meat until it is dry. Medium rare is best for bison beef and pork.
3. **Extended aging** can cause gamey or off flavors. (Aging at Quality Meats is dry aging and it is done at about 34 degrees.) Prolonged aging can accentuate flavor (or taste). It does this because aging is actually done to tenderize meat through partial decomposition. That will break down tissue fibers, making them tenderer. Flavor can increase toward gamey.

Quality Meats hangs (dry ages) your meat about ten days before processing. That is ideal for lean, young, grass fed beef. Extended aging is not needed and is probably more likely to be harmful overall.

Customers sometimes ask for longer aging in the hope that their meat will be tenderer. Because our beef and bison are quite young at harvest, aging beyond seven to ten days will not help. It may hurt the meat and probably will result in more waste because of surface dryness. Meat tends to dry while hanging.
4. **Tainted or spoiled meat.** Your meat is handled carefully from harvest at our farm until it is frozen after processing at Quality Meats. The likelihood that it spoiled during the harvest and processing sequence is extremely low. Essentially not possible.

Your home freezer should maintain the meat at zero degrees Fahrenheit or lower. When stored below zero, meat keeps essentially forever. It might lose flavor over time but it will never spoil.

**When you defrost ahead of cooking, always do so in the refrigerator.** Refrigerator defrosting helps to avoid the develop of off flavors. Keep the meat covered during defrosting, marinating, and handling to minimize the possibility of exposure to organisms that are always in the air. Methods of quick defrosting such as heated air or hot water will thaw the meat but are likely to lead to uneven cooking.

Get in the habit of defrosting in the refrigerator a day ahead. Correct defrosting is important for cooking. The meat should have time to get to an even cool temperature or cooking will be uneven.

**Never use the microwave to defrost.** That really damages the meat up.

5. **Animals can eat bad tasting plants** and thus transfer that taste to the meat. This is something that hunters know well. Deer taste much different depending on where they live. Deer in parts of Minnesota with corn fields are generally mild tasting. A deer that is harvested in a tamarack swamp of northern Minnesota has a much different taste. Even I would call that gamey. I would add spices for cooking.

A few species of pasture plants can give a bad or unique taste to meat. For example, it is well known that if animals eat excessively of a common plant named yarrow, (a pungent herb) their meat may develop an unpleasant taste. Actually the taste of yarrow.

The good news is that animals virtually never eat too much of anything toxic or troublesome unless they are starved.

Like most farmers, we provide plenty of high quality food, either grass or grass hay for our animals.

In addition, I watch our animals closely. I know which plants they prefer and which plants they eat.

It is conceivable but very unlikely that meat from our farms is tainted by what the animals eat.

6. **Stress at the time of harvest can cause an “off” taste.** Stress causes the release of adrenaline and other hormones. Physical activity and excitement of any kind causes short term changes in the chemistry of meat. In the meat trade that is frequently identified as “dark meat.”

Dark meat can affect taste, tenderness, and shelf life.

We pasture harvest. That means the animals are killed in the pasture with zero or very low stress. Pasture harvest is extra work but it eliminates the stress of loading and hauling the animals and then killing them in a strange place.

As a final precaution, the folks at Quality Meats also examine the carcass carefully to see that everything is normal.

### **Summary.**

We take many precautions to assure that your meat tastes as it should. In fact, we get very few complaints from customers about the taste of our meat. Whenever possible we retrieve some of that meat and test it ourselves. Thus far, none of it has ever actually had a bad or off taste.

Certainly, it is possible but if it does happen, it is extremely uncommon.

I hope some of you find value in this letter.

Sarah posted an interesting article about broth and bouillon cubes on her blog Sunday.

[www.sandhillfarmsarah.wordpress.com](http://www.sandhillfarmsarah.wordpress.com)

We will use that information and other information about broth, soup bones, and marrow bones to make those components more available and attractive to you by the fall harvest.

Stay tuned for that.

My next letter will be about the taste of grass fed meat in general.

In future letters I will cover cooking in general, tough meat and related issues.

Do you think we cook meat to make it safe to eat or to make it easier to eat?

Most people think we cook to make meat safe. That is not the original reason. Meat is not naturally contaminated.

Spring is coming.

Best regards.

Tom