

COW/CALF CORNER

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Why Does the U.S. Both Import and Export Beef?

Derrell S. Peel, Oklahoma State University Extension Livestock Marketing Specialist

The job of markets is to seek out the highest value for products produced and encourage the most efficient use of resources to facilitate that production. Keeping this in mind helps explain current production and trade relationships in the U.S. beef industry. The U.S. is the largest producer, the largest consumer, the third largest exporter and the largest importer of beef in the world. I get many questions about U.S. beef trade and particularly why we need to import beef.

The role of beef exports is obvious, on the one hand, in that it represents an addition to domestic beef demand and thus expands the total size of the market for U.S. beef. However, beef exports play a more subtle role that is often not well understood. One of many complexities that make the beef industry so challenging is the fact that the set of animals processed into meat results a vast array of different products of different qualities. The set of products produced does not, in general, exactly match the preferences of domestic consumers. U.S. beef demand largely consists of demand for ground beef and steaks. Ground beef can, of course, be made from a wide variety of qualities of lean but steak demand is mostly oriented towards high-quality middle meat cuts.

It is a fact that we will eat what we produce so if we do not produce exactly what we prefer, the total value that consumers will offer the industry will be adjusted down as prices are reduced in order to entice consumers to purchase what we have, as opposed to what they really prefer. This makes the role of exports, particularly exports of lower valued products, especially important because it allows the industry to adjust the product mix to more closely fit the demands of the domestic market. Thus the export of things like Select Chucks and Rounds to Mexico is very complimentary to the U.S. market.

The import side seems harder to understand but it is mostly related to the hamburger market. Ground beef production requires much additional lean to mix with the trim resulting from steer and heifer slaughter in order to make ground beef. Of course, most any quality of lean is suitable and we utilize our cull cows and bulls for this purpose. We do not produce enough cull cow meat and additional lean must be added to the mix. We could (and do) use some of the Chucks and Rounds that have relatively low demand to grind back into hamburger. However, this is a relatively expensive product since we have paid to feed it in the feedlot. It is not very efficient to feed cattle to higher quality and then grind the meat back into hamburger. This is particularly true when we can sell the meat in an export market. Even at a relatively low value as a muscle cut, these products have a higher value for export than for grinding.

Not only that but there are sources of additional lean that are cheaper and support the extremely competitive fast food industry in the U.S. It is at the hamburger market level where the beef industry competes most intensively with pork and poultry and even a fraction of a cent per pound change in cost for ground beef affects competitiveness of the industry. Lean beef imports sourced from Australian range beef, New Zealand dairy beef or Canadian cull cows are mixed with steer and heifer trim thereby providing competitively priced ground beef and a way to utilize trim product that would have almost no value otherwise.

Understanding and Avoiding Heat Stress in Cattle

Glenn Selk, Oklahoma State University Extension Cattle Reproduction Specialist

Understanding and avoiding heat stress in cattle can be a valuable management tool for summertime in Oklahoma. According to the 1997 Oklahoma Climatological Survey most areas of Oklahoma have 10 or more days each year above 100 degrees and 70 or more days with high temperatures above 90 degrees Fahrenheit. This means that most cow calf operations will be working cattle on days when heat stress to cattle is possible. Cattle have an upper critical temperature approximately 20 degrees cooler than humans. When humans are uncomfortable at 80 degrees and feel hot at 90 degrees, cattle may well be in the danger zone for extreme heat stress. Humidity is an additional stressor that intensifies the heat by making body heat dissipation more difficult.

Over heating is sporadically encountered in cattle, but is really a rare problem. High humidity contributes to the likelihood of heat stroke or prostration because water evaporation from the oral and nasal cavities is decreased, in spite of rapid panting. At an environmental temperature of about 88 degrees, heat dissipation mechanisms such as sweating and evaporative cooling must take place to prevent a rise in body temperature. Sweat gland activity in cattle increases as the temperature goes above the thermoneutral zone. Panting is an important heat regulatory device in cattle.

The signs of overheating may develop suddenly and depend upon the environmental conditions and the health of the cattle exposed to the heat. Panting often occurs at rectal temperatures at or above 104 degrees F, but may begin even at lower body temperatures. Some animals manifest restlessness, excitement, and spasms of certain muscles. However, other animals may be dull

and depressed. A protruding tongue may be covered with saliva, and frothy mucus discharged at the nostrils. Rectal temperatures of overheated cattle have ranged as high as 107 to 115 degrees F.

Overheating in cattle can be prevented under most management conditions. Allowing animals access to cool water and mineral supplements is a must in very hot summer weather. Shade and free air circulation should be provided if at all possible. Avoid working cattle during very hot parts of the day. Very excitable cattle will be even more prone to heat stress if handled at high environmental temperatures. If animals are going to have limited access to water under stressful conditions such as shipping by truck or trailer, they should be allowed water prior to further stressful situations.

If weaning calls for cattle to be gathered and put through a working chute for immunizations, implanting, or other operations, then a few common sense rules should be followed.

- 1) During hot weather, cattle should be worked before 8:00 am, if possible. Certainly all cattle working must be complete by about 10:00 am. While it may seem to make sense to work cattle after sun down, they will need at least 6 hours of night cooling before enough heat is dissipated to cool down from an extremely hot day.
- 2) Cattle that must be handled during hot weather should spend less than 30 minutes in the working facility. Drylot pens and corrals loaded with cattle will have very little if any air movement. Cattle will gain heat constantly while they are in these areas. Therefore a time limit of one-half hour in the confined cattle working area should limit the heat gain and therefore the heat stress.
- 3) Make every effort to see that cool, fresh, water is available to cattle in close confined areas for any length of time. During hot weather conditions cattle will drink more than 1% of their body weight per hour. Producers need to be certain that the water supply lines are capable of keeping up with demand, if working cattle during hot weather.

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