

# COW/CALF CORNER

The Newsletter

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## **Can *E. Coli* Recalls Be Avoided with Vaccination?**

Glenn Selk, OSU Extension Cattle Reproduction Specialist

Several ground meat recalls have made the news in recent weeks. There never is a good time for such news. Certainly during the “outdoor grilling” season, any cause for concern of ground meat safety is not good for the industry. Montana State University animal scientists working with USDA scientists are studying the effectiveness of an experimental vaccine against *E. coli*. Beef cows in the last trimester of pregnancy were used to determine if vaccinating against *Escherichia coli* O157:H7 would increase antibody titers in the serum and also result in the transfer of these antibodies to the newborn calf. Seventy-one cows were vaccinated 30 days before parturition with an experimental vaccine and then commingled with 66 non-vaccinated cows.

Cow fecal and venous blood samples were collected at trial initiation and again about 14 days after parturition. Calf feces and serum were collected at about 14 days after parturition and 60 days later. Results of this experiment showed that vaccinating the late gestating cow with an experimental vaccine against *E. coli* O157:H7 resulted in increased antibody titers in both cows and calves. Any partial reduction in the shedding of *E. coli* O157:H7 will be useful in controlling the contamination of meat.

Source: Standley and co-workers. *The Professional Animal Scientist*. Vol. 24 (2008):260–263.

## **Remember How Markets Work**

Derrell S. Peel, OSU Extension Livestock Marketing Specialist

\$4.00/gallon gasoline, \$7.00/bushel corn, \$100/cwt. fed cattle. These and other unprecedented prices have many people wondering what is going on in our markets and maybe whether or not markets are working. In times like these it is important to remember the basics of how markets work. Our economy is a collection of markets that work so well most of the time that we take them for granted. The proof of that is that all of us can go to most any retail store on any day and we can find what we are looking to buy almost without exception. We do not spend much time worrying about running out of things to buy.

The reason we do not have to worry about not having things to buy is the result of millions of decisions made by producers and consumers everyday that provide tiny corrections to markets and collectively result in the production of things we want and reduce the production of things we desire less. It is only when we see shocks, often due to weather but sometimes due to other factors, that we see markets struggle to ration products to avoid shortages. Even then the problem is usually corrected very quickly.

All economic activity is based on scarcity, which is the reality that there is not enough resources in the world to produce as much of everything as people desire. This means that choices have to be made about what gets produced, how resources will be used and ultimately who gets the resulting production. The job of markets is to translate consumer desires into values so that limited resources can be efficiently allocated to best meet the demands of people. In essence, consumers, in order to consume a product, must bid that product away from other consumers and from other uses of the resources necessary to produce the product. Producers, in order to produce any product, must bid the resources needed for production away from other uses of the resources. The collective bidding activities of consumers and producers leads to the prices we observe in the multitude of markets in our economy.

All of this happens rather subtly and seemingly automatically most of the time. Occasionally, a shock or set of shocks or circumstances will converge to cause a period of volatile market dynamics to sort out a new set of values for products and resources. Such is the situation now. We are in and will likely continue to experience for some time very dynamic market environments until markets collectively figure out, for example, just what the value of corn and other agricultural crops are for food, feed and fuel. We have to figure out the value of meat and various ways that it can be produced. We have to figure out the value of energy, food and other products in countries around the world given the rapidly growing demand in some developing nations. It is not an easy process, nor a quick one, given the magnitude of the current situation. However, markets do work and they are still a remarkably efficient way to capture the multitude of direct and indirect impacts of a vast array of market influences.

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