Traditional marketing systems of fed and non-fed cattle have evolved into more sophisticated, consumer-driven, individual animal pricing systems. The ability of cattle producers to adapt to these marketing systems will have a tremendous impact on profits. Dodging higher fuel and fertilizer prices are added incentives for us to begin to change our management and marketing strategies and break away from the “I’ve always done it this way” habit.

**Time Line of Beef Marketing**

Over the past several decades the number of farms and ranches that produce beef has declined at an alarming rate. Presently, eight percent of the cow-calf producers control 50 percent of the total calf production. Fed cattle management has changed from a farmer-feeder dominance to a commercial feeding industry. Today, 2,075 feedlots control about 85 percent of the fed cattle marketing. The top three cattle companies currently control about 10 percent of all fed cattle marketed and all three of these companies have aggressive growth plans for the future. If the past is any indication of the changes ahead, the production of beef will continue to evolve into a total production system that will emphasize efficiency, specialization, and cooperation/integration. Currently, a small percentage of the cattle slaughtered are actually under an alliance arrangement and there is room for growth in this marketing strategy.

**What is an Alliance?**

Alliances are a partnership where people and companies work together and fairly share in the final product. The main goals of an alliance are to share information, improve production efficiency, and (or) better place their product within a tough marketing arena.

**What Factors Make Me Money**

Many alliances are based on the concept of VALUE-BASED MARKETING where anyone who donates to the total value of an animal is fairly rewarded monetarily for their efforts. Alliances can save producers input costs by allowing producers to order feeds, minerals and medications in bulk. As for the end product, we all know that an inferior product is worth less than a product produced at a greater quality than intended. Categories for premiums and discounts used in many of the grid marketing systems are as follows:

- marbling
✓ red meat yield (cutability, percent retail product)
✓ carcass weight (both within an acceptable marketing range, and total pounds produced)
✓ uniformity
✓ a defined consumer preference (implant free, antibiotic free)

For many producers, “the profit remains within the fence”, meaning a few management strategies on the farm (excluding marketing) can enhance profitability. These include: increasing your weaning percentage and finding out where and why calves die, calf best management practices of deworming, implanting, castration and fly control, pasture management, narrowing calving season, and genetic improvement.

High profit cattle must be survivors, gain efficiently, have low maintenance costs and be uniform. Uniformity becomes greatly apparent in grid marketing situations that heavily discount out weight carcasses. Finally, yield is equally important. Feeder cattle are bought by the pound and not by percent of carcass value, so we must convert our costs through dressing percentage. Dressing percentage is effected by many factors: sex, pregnancy status, mud, days on feed, breed, bruising, and the list goes on and on. Lost carcass weight through excessive trimming or carcass weight not gained is lost income.

Survivability and reproductive efficiency are and will always be the MOST ECONOMICAL IMPORTANT TRAITS IN THE BEEF INDUSTRY. Those cattle that poorly convert feed into desirable carcasses are an added expense to beef production. Value-based marketed cattle that hit their carcass targets will be rewarded with increasing demand and profitability now and even more into the future.

How do I get Involved?
Your local Extension Livestock Agent can help you collaborate with other producers in your area. Don’t miss out, call and let them know you are interested. There is an internet sale coming up in August that will grant you the perfect opportunity to become involved with cattlemen in your area, or form an alliance in efforts to save money and maximize your profits.

Internet Cattle Sale – For You!

Amy Andrews-Livestock Agent, Craven & Jones Counties

Now is the chance! Improve your beef marketing strategies by trying an internet sale. An internet truckload sale for cattle has been put together for cattle producers here in the east. The date will be August 19. We are hoping to get enough loads (10-15) to have a good sale. The sale will be broadcast over the internet from the Clinton Livestock Arena. We are hoping to make this an annual event or possibly twice a year if all goes well so that we can build a positive reputation for the cattle offered on this sale and for North Carolina.

Truckloads can be made up of calves from several producers who have had 2 rounds of vaccines including type 2 BVD and Blackleg. One round of vaccines can be given three weeks prior to weaning followed by a booster at weaning or cattle can be vaccinated at weaning and 2 to 4 weeks later. It is expected that calves in the 500-800 lb weight range will bring more and mixed loads of steers and heifers will bring slightly less. Calves should be weaned at least 30 days prior to the sale. Cattle for this sale will be video taped on their farm prior to August. Cattle departure dates will be coordinated after August 19th and the Clinton Livestock Arena will be available as a load area if you do not have the capability to load from your farm. If you have any interest in this sale, or would like more information, please contact your Livestock Agent or Paul Gonzalez, Sampson County Livestock Agent at 910-592-7161.
In these days of resource conservation and drought, it seems everyone is watching the amount of water that runs down the drain. When those drains lead to a hog lagoon, water use comes under the watchful eye of the animal waste operator.

Excess water flowing into the lagoon is not always a good thing. Rain water, excess drinking water, water for washing and sanitation, and water from misters and cool cells all contribute to the flow into the lagoon. This water, along with wastewater, will be pumped onto the sprayfields. However, when limiting water use, how much is too little? Confused? Read on.

Water is the single nutrient required in the greatest quantity by animals. Pigs require water for a variety of reasons, including most metabolic functions, adjustment of body temperature, movement of nutrients in to the body tissues, removal of metabolic waste, productions of milk, and for growth and reproductions. In fact, 80% of the empty body weight of the newborn pig and about 50% of a market hog is water. An animal can lose practically all its fat and over half of its protein and still live, while a 10% loss in water results in death (Almond, 2002).

In general, water requirements of grow-finish pigs is related to feed intake and expressed as a ration of water:feed. The table below shows the amount of water pigs need daily.

<table>
<thead>
<tr>
<th>Class of pig</th>
<th>Gallons/pig/day</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nursery pigs</td>
<td>0.7</td>
</tr>
<tr>
<td>Grower pigs</td>
<td>2-3</td>
</tr>
<tr>
<td>Finishing pigs</td>
<td>3-5</td>
</tr>
<tr>
<td>Non-pregnant gilts</td>
<td>3</td>
</tr>
<tr>
<td>Pregnant sows</td>
<td>3-6</td>
</tr>
<tr>
<td>Lactating sows</td>
<td>2.5-7</td>
</tr>
</tbody>
</table>

Many factors can increase these amounts including disease, amount of protein in diet, and high environmental temperatures.

When producers began investigating ways to save water, obviously limiting drinking water is not the way to go. Changing the watering system used is more feasible, and there are many options. Recently, integrators have encouraged growers to change drinkers in houses to limit the amount of water wasted by the pigs.

In the past year, rain water entering the lagoon has not been a problem because of drought conditions. Mother nature has been limiting rain and that in turn has had the biggest effect on lagoons. This big change in the amount of water in the lagoon has its ups and downs (no pun intended).

On the up side, wastewater operators have not been pumping wastewater near as often as compared to summer seasons in past years. Crops in sprayfields are not getting the fertilizer they need. Additionally, we have not had big rains from hurricanes and tropical storms.

The down side of this situation is the issue of sludge. A lagoon that is working properly will have enough space (ideally 4 feet) to balance the temporary water storage and the permanent water treatment and sludge storage. Due to our shortage of rainfall, many lagoons spent most of 2007 below the “stop pump” level in the lagoon. Because of these low levels, one would expect that many lagoons did not have adequate space to work properly, and could very well have higher sludge levels this year than last.

All this talk about water conservation leads us to believe that too much could be too little. Too much conservation makes too little water in the lagoon, which could lead to too much sludge. Another summer of too little rainfall could leave us too many problems. The solution: watch your water!
A few weeks ago, I had the opportunity to attend a training session on a new cost share program available through the Division of Soil and Water Conservation Districts in NC. The purpose of the program is to assist farmers with restoring drought-damaged pastureland and provide additional water supplies for livestock and crops. The project also responds to immediate, critical needs resulting from the record-breaking drought of 2007. Grants for the program will cover 75% of the cost of certain projects necessary to restore pasturelands to usable condition or to create new or improved water supplies for livestock and crops, in an effort to avoid crises if there is a future drought. Recipients of the grants will cover the remaining 25% of the cost. The following are eligible projects for the program: pasture renovation, drilling and re-drilling wells, pond construction and renovation, conversion of closed lagoons to fresh water ponds, and upgrading irrigation systems. Technical assistance will be available to assist farmers with grass selection and other pasture management techniques for long-term productivity. In addition, farmers who sign up for the program are obligated to maintain the installed best management practice for ten years, and may be subject to random checks of this maintenance during this time.

If you have not looked into the Drought Response Program, you may want to. Contact your local Division of Soil and Water Conservation office or your Extension Office for more information on the program. The Wayne County DSWC office can be reached at 919-734-5281, #3.

Much of North Carolina can be considered selenium deficient. This means that forages grown on our soils may not provide adequate amounts of selenium to those livestock that eat them. The availability of vitamin E, on the other hand, is more closely related to forage quality. Pasture grasses tend to be higher in vitamin E than hay so animals that have adequate grazing usually do not suffer from vitamin E deficiency.

These deficiencies have also been known to cause reproductive problems such as abortion, dystocia, reduced milk production, retained placenta, and lower conception rates. In terms of overall health, animals may show signs of weak immune systems and poor rates of growth. Vitamin E and selenium deficiencies are also responsible for White Muscle Disease (WMD), which is a degenerative muscle disease.

WMD is usually seen in newborn or rapidly growing animals and kids are more
often affected than lambs. This may be due to the fact that kids have a higher dietary requirement for selenium than lambs do. When skeletal muscles are affected, animals may have a stiff gait or a hunched appearance or may tremble in pain when held in a standing position. These animals may continue to be alert and have normal appetites but will eventually become weak and unable to nurse. Newborns who suffer from this condition are born weak and may be unable to stand.

When the disease affects the heart muscle, the animal may have elevated or irregular heart and respiratory rates and may also show signs of pneumonia such as difficulty breathing, frothy nasal discharge, and fever.

Animals that have the form of WMD that affects the heart usually cannot be treated. The muscle form of the disease can often be treated with supplemental vitamin E or selenium. Producers should take care not to over supplement animals because selenium toxicity and death may occur. Affected animals usually respond to one treatment of vitamin E and/or selenium within 24 hours but some animals may require a second dose. Animals should not be treated more than twice.

WMD and nutrient deficiencies can be prevented by feeding high quality feed and hay and providing access to good quality pasture. Avoid feeding high concentrations of other minerals, which may decrease the animal’s ability to absorb selenium. Supplementation of pregnant animals often reduces the occurrence of this disease in newborns because the selenium can be transferred from the dam to the fetus. Vitamin E can be transferred through the colostrum after birth.

Although selenium compounds are available in an injectable form to prevent WMD in at-risk animals, they are a poor alternative to providing adequate selenium and vitamin E in a high quality diet. The total diet for sheep and goats should contain 0.10 to 0.30 ppm of selenium.

### Forage Management Tips

#### July
- Stick to a four to six week schedule of nitrogen applications on summer grasses. Do not delay application because of dry weather unless it has not rained at all since the previous application.
- Maintain harvesting frequency for quality hay.
- Hot, dry weather can result in nitrate poisoning of animals grazing stunted, highly fertilized summer annuals.
- Sample soils and apply lime on fields to be planted in the fall, if not already done.
- Decide which fescue pastures will be stockpiled for winter grazing.

#### August
- Sample soils and apply lime to pastures with pH below 5.8 to be overseeded next spring.
- Fertilize warm-season grasses.
- Fertilize fescues and keep cattle off of the pastures to be stockpiled for winter grazing.

### Upcoming Events

**AUGUST**

19th Internet Cattle Sale, Clinton

This site contains the same information found in the guide and has been produced to offer assistance in dealing with natural disasters. If you would like a printed copy of the guide, contact your local North Carolina Cooperative Extension Service Center.

Emily M. Adams
Agricultural Extension Agent
Safe Summer Food

The number of foodborne illnesses increases during the summer. Why? Bacteria love the hot, humid days of summer. They grow faster then than at any other time of the year. When the temperature is above 90 F, the time perishable food can be left outside the refrigerator or freezer drops from two hours to one hour. We're also more likely to leave food unrefrigerated for longer time periods, due to picnics, barbecues and summer travel. Beat bacteria this summer with these four tips, tools for safe summer food.

1. Chill Out!
Keep perishable foods cool when traveling by transporting in an insulated cooler with ice or frozen gel packs. Pack the cooler with well chilled foods, just before leaving home. Avoid frequent opening of the cooler, by packing beverages in one cooler and perishables in another. Keep the cooler in an air-conditioned vehicle for transporting and then in the shade or shelter at the picnic site.

2. No Poking!
Poking and stabbing meat with a fork or knife when placing or turning meat on the grill can cause a loss of juices that keep meat moist and tender, but it can also can affect food safety. Bacteria normally are found only on the external surface of larger cuts of meat like beef steaks. However, if a steak is poked with a fork or knife, these bacteria can be pushed into the steak.

3. What's Hot, What's Not!
Rather than worry about maintaining food temperatures, limit the number of perishable foods on your menu. Serve potato chips instead of potato salad; whole fruit instead of fruit salad; and cookies or brownies instead of a perishable cream-filled pie.

4. Get a Handle on Handwashing!
Unwashed hands are a prime cause of foodborne illness. Always wash your hands with warm, soapy water for 20 seconds before handling food. If no handwashing facilities are available use disposable towelettes or antibacterial gel.