

The Back Forty News



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From the Agents Desk.....

New Year Resolutions

The New Year is here, and with it comes the endless list of resolutions that we compile for ourselves each year.

Whether it is to lose that extra 20

pounds or be more organized, we all have a few things that we would like to improve about ourselves during this New Year.

We set goals for our self each year but what are your goals for your farm in 2008? With the ever increasing cost of feed, fuel, and fertilizer, we need to find more ways to be more efficient, to be competitive in today's market. Here are five resolutions that can help the bottom line on your farm in 2008.



1. Test Hay and Formulate a Ration

Cost: \$0.50 - \$1.00 per cow for hay testing

Net Return: \$10 - \$12 per cow

Testing your hay allows you to formulate a ration based on the nutritional needs of your herd. 70% of all hays tested in Arkansas are deficient in energy and 40% are deficient in protein. The cost for conducting a hay test (\$18) can really pay off in savings on supplemental feeding costs.

2. Improve Grazing management

Cost: \$1.50 - \$2.50 per cow for extra fencing over 15 years.

Net Return: \$12.50 - \$14.50 per cow.

Improving grazing management increases your farm's carrying capacity, allowing you to produce more beef on the same amount of land. With continuous grazing, you get 35% forage utilization whereas rotational grazing utilizes 70% of your forage. Dividing larger pastures with electric fencing is an excellent way to increase forage utilization and get more out of that high-priced fertilizer.

*Arkansas
Is Our
Campus*

3. Castrate early and implant

Cost: \$5 per head (\$3 castration +\$2 implant)

Net Return: \$17.00 - \$28.00 per steer sold

Castrating can get you \$4 to \$6 more for steer calves as opposed to bull calves at the sale barn. In addition, castrating early can reduce the health risks and stress with castrating at weaning. Data has also shown that for every \$1.00 spent on a growth implant, an average of \$20.00 is returned through added weight gain. Growth implants can increase weaning weights up to 20 pounds.

4. Compress the calving season

Cost: \$10 - \$30 per cow (Costs reflect breeding soundness exam, and possible delay of production in outlier cows)

Net Return: \$30 - \$60 per cow

Longer calving seasons result in lighter weaning weights due to the fact that age significantly affects weaning weight. If a single weaning date is used, younger calves wean at a lighter weight. Therefore, if the calving season lasts 90 days or less, no calves will be less than 180 days old at weaning. This means that the average weaning weight for the herd with a 90 day calving season will be higher simply because there are no calves less than 180 days of age at weaning time. In addition, calves of similar ages can be easier to market.

5. Select a herd sire for pre-weaning growth

Cost: \$300 - \$500 premium for herd sire

Net Return: \$15 - \$18 per calf marketed, compared with calves of breed average sire (+O WW EPD)

The herd bull is the most important individual in your herd. A female can be expected to produce one calf per year, while a bull may sire 30 or more calves per year. In one breeding season, a bull may sire more calves than a cow can produce in her lifetime. Selecting genetically superior bulls is the quickest path to herd genetic improvement. A +20 WW EPD bull = 20 lb increase in WW per calf, relative to breed average.

ABIP Workshop Planned

The Fulton, Izard, and Sharp County Extension Services will be hosting an Arkansas Beef Improvement Workshop on February 19th and 21st. The meeting will be held at the Turkey Mountain Clubhouse in Horseshoe Bend and begin at 6:00 p.m. each night.

Topics will include cow-calf budgets, bull selection, calving and herd health, and nutrition. Presentations will be made by U of A Extension Specialists.

A meal will be served and producers are asked to pre-register by February 8, 2008. For more information or to pre-register, contact the Extension Office at 895-3301.

CENSUS GIVES FARMERS A VOICE IN THEIR FUTURE

2007 Census of Agriculture

America's farmers and ranchers will soon have the opportunity to participate in shaping the future of agriculture. The National Agricultural Statistics Service (NASS) will begin distribution of the 2007 Census of Agriculture later this year.

"The Census of Agriculture provides information that is not available anywhere else – information that benefits agricultural producers and their communities in myriad ways," said NASS Administrator Ron Bosecker. "For instance, policy-makers use Census data for decisions concerning agricultural and rural programs. Community planners use Census information to target delivery of local services. Companies rely on Census data when determining where to locate their operations. And farmers themselves look at Census data when deciding to make changes in their production strategies."

Conducted every five years by the U.S. Department of Agriculture, the Census is a complete count of the nation's farms and ranches and the people who operate them. The Census looks at land use and ownership,

operator characteristics, production practices, income and expenditures and other topics. It provides the only source of uniform, comprehensive agricultural data for every county in the nation.

NASS will mail out Census forms on December 28, 2007, to collect data for the 2007 calendar year. Completed forms are due by February 4, 2008. Producers can return their forms by mail or, for the first time, they have the convenient option of filling out the Census online via a secure Web site.

“We’re committed to making this Census the best count ever. It’s about the future of U.S. agriculture and our nation’s rural communities,” Bosecker said. “Regardless of how large or small their operation is or what kinds of products they produce, farmers and ranchers will help themselves and their communities by filling out the Census of Agriculture and returning it promptly,” he added. “We want farmers and ranchers to know: the Census is their voice, their future and their responsibility.”

For more information about the 2007 Census of Agriculture, please contact the NASS Field Office at (501) 228-9926 or visit www.agcensus.usda.gov.

Last Chance for Pesticide Class

Izard County will be hosting the last private pesticide applicator training for the tri-county area. The training will be held at 6:00 p.m., January 17, 2008, at Ozarka College in Melbourne.

Federal law requires that a person who purchases or applies a restricted use pesticide must have a current pesticide applicator license and receive periodic pesticide safety training. In Arkansas, the licensing of pesticide applicators and the enforcement of pesticide laws and regulations is the responsibility primarily of the Arkansas State Plant Board. The Arkansas Department of Pollution Control and Ecology is responsible for certain pesticide regulations concerning transportation and disposal. The

required safety training, also known as Certification or Recertification, is provided by the Cooperative Extension Service.

The fee for attending the pesticide applicator training is \$10 per person and is payable at the door on the day of the training. In addition, the individual will be responsible for sending the licensing application and fee to the State Plant Board after the training has taken place. A five year license is \$45. For more information, contact the Fulton County Extension Service at 895-3301.

Animal Science Searchable CD

The University of Arkansas Division of Agriculture Cooperative Extension Service has developed a searchable CD with over 125 publications, including information on beef and dairy cattle, horses, goats, and hay and pasture management; Excel spreadsheets to help with beef cattle feeding and nutrition and PDA tools; Arkansas Seasonal Pasture Planning software program to optimize cattle forage intake with forage production; Limestone Quality Calculator software program to calculate the cost effectiveness of each lime product; Frequently asked questions about beef cattle nutrition and feeding; Drought management articles; ABIP newsletters; Beef Cattle Research Update newsletters; Arkansas Cattlemen's articles and 800 photos for grasses, forbs, woody plants and legumes for ID.

The Cooperative Extension Service is offering this CD free to producers. This CD is the most complete Animals Science reference material Extension has ever produced. If you would like a copy of this CD, please contact the Extension Office at 895-3301.

<p>Don't Miss the Fulton County Agent's Corner In The News for the latest information about the farm, home and garden. Published once a month in <i>The News</i>.</p>
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Extension Service Warns Producers About the 'Hay Rustler'

Hay rustlers are putting a cyber spin on a scheme to bilk a few bales out of Arkansas producers, according to Dr. Tom Troxel, professor/associate head of the Animal Science Department of the University of Arkansas Cooperative Extension Service.

The scam surfaced as producers in Van Buren, Washington and Hempstead counties received e-mails from a supposed buyer, Troxel said. But the producers smelled a rat.

"In one incident, two Van Buren County producers, who listed their hay for sale in extension's hay directory located on its Web site, received e-mails from a person ... who said he wanted to purchase 15 bales of hay," Troxel said.

The man "asked the producers for their mailing address so he could send them a check via FedEx," Troxel said. "The amount of the check was to cover the hay purchase price and pay the shipping charges. The man told the hay producers he would arrange for a shipper to arrive at their farm to pick up the hay. The hay producers were supposed to pay the shipper." Troxel said one of the producers contacted Van Buren County Extension Agent Danny Griffin and inquired about the transaction. Griffin was suspicious because the buyer usually pays the shipper. That was the key that made the producers question the transaction.

One of the Van Buren producers took the check to his bank and asked the bank to verify the check.

"The check was fraudulent," Troxel said. "The check had a name on it and it had the National City Bank of Frankenmuth, Michigan. The return address on the FedEx envelope was 123 Autobahn, New York, New York."

The stories in Washington and Hempstead counties were similar. Law enforcement officials have been notified.

Each bale is worth \$30 to \$35, Troxel said. "By keeping amounts small, he apparently hoped to fly under the radar and not draw suspicion," he said. "The alleged buyer could

have gotten a load of hay free, and he could have turned around and sold it.

"Many agricultural producers in the state are trusting individuals. To them a man's word is bond. They're used to doing business with friends and neighbors with their word and a handshake. They're good honest sincere people. In this case, they would have been out the cost of the hay and the shipping.

"Producers just need to be cautious. Computers and Internet open them up to fraudulent schemes. You must investigate a proposal if it doesn't sound right."

Troxel said the alleged buyer told the producers he had gotten their contact information from the Arkansas Hay Directory on the Cooperative Extension Service Web site at www.uaex.edu. The directory is a service to help connect producers with excess hay to sell and potential buyers.

"It's unfortunate that apparently an individual is misusing a service designed to help people in need," Troxel said. He said the scheme may not be limited to Arkansas. Several states have similar hay directories.

The Arkansas Agricultural Statistics Service says Arkansas producers will harvest about 1.5 million acres of hay this year. The total value of Arkansas' total hay production last year was nearly \$206 million.

How Big is Too Big?

Dr. Brett Barham

U of A Beef Cattle Specialist

Are your mature cows too big? What is the mature size of your cows? What is your average calf weaning weight? If you have never asked yourself these questions, it may be time to. Why are cow size and calf weaning weight important? They relate directly to your ability to efficiently produce a pound of weaned calf. If you do not know the answer to these questions, you have no idea of your operational efficiency. Average cow weights have crept up over the years, mainly with the thought that weaning weights will increase. However, we may be past the optimal point of cow size and efficiency. A

general goal that extension specialists have for a cow is to wean 50% of their mature body weight each year.

Look at these figures. A 1,000-lb cow would need to wean a 500-lb calf; a 1,200-lb cow will need to wean a 600-lb calf; a 1,400-lb cow needs to wean a 700-lb calf. So what is the average cow size and calf weaning weight in Arkansas? Cow Herd Performance records from the last several years show that the average cow size is 1,315 lbs, and the average calf weaning weight is 539 lbs. This makes the efficiency 41%, which is 9% below the recommended average. What is the temptation for selecting for a larger cow? The possibility for a larger calf is what most producers will answer. One important consideration in cow size is that as cow size increases, the cow's ability to produce the recommended 50% is reduced. Most cows will not wean a 700-lb calf at weaning without some form of creep feeding. Additionally, larger cows have higher feed requirements.

In recent years, with limited forage availability, having a herd of smaller cows that require less feed inputs would be a definite benefit. With the outlook of expensive corn for the future, having a herd of cows with a lower feed requirement will help maintain profits in times of increasing feed input costs. Some producers might argue that post weaning performance from larger-framed cows is higher than calves from smaller framed cows. This may be true; calves from larger cows have the genetic potential to grow to a larger size and may have higher average daily gains. They will also need to be fed to a heavier weight to be considered finished. However, most producers in Arkansas do not retain ownership past weaning, so the important consideration for most producers is how to produce a pound of weaned calf as efficiently as possible. This is where a planned crossbreeding program can pay off. It is possible to design a crossbreeding system that allows for the use of moderately-sized cows (1,050- to 1,150-lb cows) to be bred to high growth bulls. This type of system will optimize efficiency by using smaller-sized cows while producing calves with good growth potential.

For more information on setting up a crossbreeding program to increase your cowherd efficiency or to get help determining your current cow herd efficiency, contact your local county extension office.

Nutrients Are Essential Heading Into the Spring Calving Season

Nutritional requirements for pregnant and lactating cows can present quite a challenge for operators, but are also very important to the well-being of the cow and to reproductive efficiency. Because factors such as cow size, environment and stage of production can change daily, a cow's nutritional needs are constantly fluctuating. Most of these changes are rather small, and long term nutritional programs will assist in managing these subtle issues.

The required energy levels are the most variable, followed by protein, mineral and vitamins. Energy is important for all biological systems. Maintenance, weight gain, reproduction and milk production are all a product of energy utilization in the beef cow. TDN (total digestible nutrients) is the term used for the measurement of energy (calories) converted to pounds or percentage of the diet. Proteins provide for functions such as enzyme systems, muscles, nerves and soft tissues. Proteins are used by microorganisms in the rumen to reproduce and digest carbohydrates which aid in supplying energy to the animal. The requirement for protein increases as cow size increases. Forages that are lush or vigorously growing typically will provide sufficient ruminant protein. However, as the forage matures or the onset of feeding hay occurs due to weather conditions, the protein content will decrease causing the need for supplementation.

Minerals also play an important role for many bodily functions. Bone mass and many of the enzyme systems such as immunity, digestion, reproduction and milk production utilize minerals. Mineral supplementation is very precise and difficult to manage because of

the different mineral interactions. Small mineral changes can cause deficiencies.

Many of the vitamins can be readily available in growing forage. However, because of the dry weather conditions in 2005, many producers began feeding hay in September. Vitamin A can be stored in the liver with protection for up to two to four months.

Therefore, as calving season begins vitamin A could become deficient and require the need for supplementation. Requirements for vitamin A are 1,250 IU/lb of dry feed for pregnant cows and 1,770 IU/lb of dry feed for lactating cows. Cows rarely need any vitamin D supplementation because it is synthesized by beef cows exposed to sunlight or fed sun-cured forages. Vitamin E requirements depend on concentration of antioxidants, sulfur-containing amino acids, and selenium in the diet and can be quite difficult to determine. Vitamin E is not stored in the body in large concentrations. The vitamin E requirement is estimated to be between seven and 27 IU/lb dry diet.

Nutrient Requirements of Mature Beef Cow; 1,100 Mature Weight; 20 lb Peak Milk

Months Since Calving	DMI (lb/day)	TDN (lb)	NEm (Mcal)	CP (lb)	Ca (lb)	P (lb)
1	24.5	15.0	25.1	2.62	0.075	0.051
2	26.4	15.9	26.7	2.88	0.084	0.055
3	26.9	15.6	26.1	2.73	0.077	0.051
4	26.0	14.7	24.7	2.45	0.068	0.046
5	25.0	13.8	23.0	2.17	0.060	0.042
6	24.2	13.0	21.8	1.95	0.053	0.037

Source: Nutrient Requirements of Beef Cattle, MP391, UA Cooperative Extension Service

The table above lists some of the basic nutrient requirements. This is based on a 1,100 lb mature cow with a peak lactation of 20 lbs at different intervals after parturition. These nutrients are the basis of efficient production and ultimately will affect profit/loss.

Beef Cattle Research Update

This information is taken from the Beef Cattle Research Update put out by Dr. Tom Troxel – Beef Cattle Specialist. The information given herein is for educational purposes only. Reference to commercial products or trade names is made with the understanding that no discrimination is intended

and no endorsement by the Arkansas Cooperative Extension Service is implied.

Review: Rice Milling Coproducts as Feedstuffs for Beef Cattle

Gadberry et al., University of Arkansas

The objective of this paper was to collectively present literature on the performance, intake and digestibility of diets containing rice milling coproducts. Rice is composed of three basic components: the hull, a brown bran layer and the kernel. The kernel, bran and hull represent approximately 70, 10 and 20 percent of the weight of rough rice. Milling rough rice initially requires removing the hull, leaving brown rice. White rice is then produced by removing the bran layer. Coproducts of the rice milling industry – hulls, rice bran, de-oiled rice bran and rice mill feeds (a mixture of hulls and bran) – may be an economical alternative to grains within these regions of the United States.

Rough Rice:

- The ground rough rice was three times more digestible within 24 hours of ruminal incubation than the unprocessed rough rice (75.5% and 25.9% digested for the ground and unprocessed samples, respectively).
- The limitation of feeding unprocessed rough rice is due to the poor digestibility and palatability of the hull.
- Feeding high levels of rice hulls has resulted in digestive disorders including diarrhea, bloat, bloody mucus in feces and stomach compaction with hulls. Without disrupting the hull, its poor digestibility would likely slow microbial penetration into the grain, thus requiring mechanical processing such as grinding to improve the digestibility of rough rice.

Rice Bran:

- Performance studies have indicated that cattle supplemented with rice bran may not perform as well as cattle supplemented with corn or soybean hulls.
- Diarrhea frequency increased with increased level of rice bran, and diarrhea was reported a problem in some studies where the inclusion rate was 40% and 50% of the diet.
- Performance was similar between calves consuming diets containing 20% and 30% rice bran, but performance declined when rice bran was fed as 40% and 50% of the ration.
- Cows fed the rice bran diet gained more body condition than cows fed the control diet. Cows fed the rice bran diet had increased numbers of medium, large and total follicles. Postpartum interval was not affected by fat supplementation; however, pregnancy rate tended to be greater in

cows fed the rice bran diet (94.1% vs. 71.4% for the rice bran and control diet, respectively).

- Rice bran is high in ash content and low in organic matter relative to other feed grains and coproduct feedstuffs.

De-Oiled Rice Bran:

- One advantage of de-oiled rice bran over raw rice bran is a longer shelf life. Rice bran in the summer becomes rancid unless it has been stabilized in a manner such as extruding that will destroy the lipase enzyme.
- De-oiled rice bran is higher in protein and structural carbohydrates and lower in fat than raw rice bran.
- Calves supplemented with de-oiled rice bran gained more body weight (0.37 lb/day) than non-supplemented controls.
- Feeding higher levels of de-oiled rice bran (1.1% vs. 0.8% body weight) resulted in a lower hay intake, but no difference in total organic matter intake or organic matter digestibility.

Rice Mill Feed:

- Rice mill feed is a combination of rice bran and rice hulls. Rice mill feed is a cheap coproduct similar in fiber and ash content to broiler litter and evaluated replacing broiler litter with rice mill feed in the diets of stocker cattle.
- Rice mill feed is not a good source of energy because of the influence of rice hulls, but it may play a role in limiting the overall energy content of diets that are offered for free choice consumption.

Cattle performance with rice bran and de-oiled rice bran may be lower than traditional feedstuffs such as corn due to lower organic matter content and organic matter digestibility. Removal of oil from raw rice bran may improve NDF digestibility of the bran; however, cattle fed de-oiled rice bran may not perform as well as cattle fed raw rice bran. Variability in performance results of rice bran and de-oiled rice bran and limited research with forages and feedstuffs common to the United States warrants further investigation into how rice milling coproducts can be effectively used in cattle diets in the United States.

Antibiotics in Animal Feed Do Not Result in Bacterial Resistance

Western Livestock Reporter

A recent study by the Institute of Food Technologists revealed that use of antibiotics in food animals does not increase the resistance of pathogenic bacteria in humans. The study was provoked by marketing campaigns during

the past decade by organic food advocates who have suggested there is an overuse of antibiotics in animals, thereby making the food less safe for human consumption. The study was also an answer to recent legislation in the House and the Senate proposing to ban antibiotics from livestock feed. Dr. Michael Doyle, chairman of the panel that conducted the study, stated the results raise questions about those organic and natural groups who use bacterial resistance to antibiotics as a basis for the promotion of their products.

Across-Breed EPD Tables for the Year 2007
Keunh et al., U.S. Meat Animal Research Center, Clay Center, Nebraska

Scientists at the U.S. Meat Animal Research Center recently published their annual Across-Breed Expected Progeny Difference (EPD) tables for the year 2007. The factors are relative to an Angus base, which is set at zero. The authors noted that, compared to previous years, weaning weights for many breeds are continuing to become more similar to the arbitrary base breed, Angus. For yearling weight, however, Angus is becoming heavier in comparison to differences in the 2005 report. They went on to say that most of the other breeds have not changed much relative to each other.

Breed	Birth Weight	Weaning Weight	Yearling Weight	Milk
Angus	0.0	0.0	0.0	0.0
Hereford	2.7	-3.1	-12.7	-15.7
Shorthorn	7.0	32.5	46.1	16.6
South Devon	5.8	23.1	41.7	8.0
Brahman	5.8	38.5	2.6	26.7
Simmental	12.1	24.4	17.0	13.7
Limousin	4.0	-1.3	-24.0	-12.6
Charolais	9.6	40.9	48.7	3.5
Maine-Anjou	7.1	-2.9	-31.9	-6.2
Gelbvieh	4.4	7.0	-21.2	6.2
Tarentaise	3.0	31.9	18.3	20.0
Sales	4.2	30.7	43.5	12.8
Red Angus	2.5	-4.7	-0.7	-5.1
Braunvieh	6.3	30.3	17.4	24.5
Brangus	5.0	24.3	26.5	-3.1
Beefmaster	9.0	42.2	43.7	-4.1



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