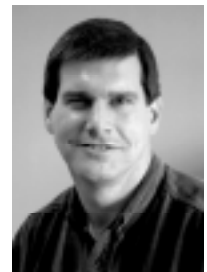


Inside:

- **Value-added projects may bring millions to Montana**
- **Is your herd susceptible to grass tetany?**
- **Restaurant partnerships promote beef menu items**
- **50th annual nutrition conference can "SHOW YOU THE MONEY!"**
- **New MSU ag classes teach heifer development and range ecology**
- **Ranch profile: Dyer Land and Cattle**

Grazing Management During and After Extended Drought

by Dr. Jeff Mosley, Extension Range Management Specialist, Department of Animal & Range Sciences, Montana State University, Bozeman



It's income tax season again, so maybe it's appropriate that we're talking about drought. To me, drought and taxes have a lot in common: they're both facts of life that must be dealt with periodically; they're both royal pains in the rear; and they both carry serious consequences if we choose to ignore them.

Most ranch businesses can readily adjust to one or two dry years in a row, and I don't believe that short-term drought necessitates major changes to most ranch grazing plans. However, three or more successive dry years challenge even the best graziers, and unfortunately, many range livestock producers across our state now face this situation. Besides the immediate concerns about how to feed the livestock, serious drought also stresses the land, often to the brink of change.

Years can pass without much apparent change to seeded pastures and rangelands, but extended drought can cause dramatic shifts in vegetation. The land then remains relatively unchanged until the next environmental trigger occurs. Drought conditions over the last three or four years have created an environmental trigger for Montana's pastureland and rangeland, and

continued on page 6

Grass Tetany in Beef Cattle



by John Paterson, Extension Beef Specialist

I have received numerous calls over the past several weeks from veterinarians and feed consultants about observing grass tetany. The following information was taken from an article written by Drs. Bill Kvasnicka and Les Krysl from the University of Nevada.

Q. When does grass tetany occur?

A. In the western U.S. tetany frequently occurs when lactating cows graze early spring growth or crested wheatgrass. It also occurs less often as winter tetany. Winter tetany usually occurs in animals fed harvested feeds. Animals usually experience an uncoordinated gait in early stages and then progress into convulsions, coma and death. There are several forms of tetany: grass tetany, winter tetany, wheat pasture poisoning, milk tetany in young calves and lactation tetany in older cows.

Q. What causes tetany?

A. A deficiency of magnesium (Mg) in the diet. Limited intake of Mg is the primary cause of tetany in the West. Plant magnesium levels of .2 to .25 percent constitute a safe level to prevent tetany.

Q. What criteria have been used to evaluate tetany?

A. The criteria used for diagnosis include both the forage Mg levels and plasma levels.

Forage levels		Plasma levels	
Tetany prone	< .12% Mg	Normal Mg	1.7 to 3.2 mg/dl
Marginal	.12 to .18% Mg	Marginal	1.0 to 1.7 mg/dl
Adequate	> .18% Mg	Tetany prone	< 1.0 mg/dl

With winter tetany, non-legume hays average .12% Mg but many hays may be as low as .03 to .05% Mg.

continued on page 5

A Message from the Dean: Value-added projects could mean millions for Montana ranchers

The economic viability of the state has received considerable attention in recent months as the legislature looks at critical funding issues. How do we continue to fund the escalating costs of education, health and infrastructure in Montana when our number one industry—agriculture—exports approximately 85% of its raw commodities at market price? It has become quite evident that we must add value and capture value from our commodities.

The Montana Agricultural Experiment Station (MAES) has asked the legislature to fund an Institute for Biobased Products and Food Sciences, which would provide programs that facilitate value-added commodity products, product development, in-state manufacturing, rural development, and job opportunities based on improving agricultural products. In addition, MAES has asked the legislature to approve planning for an Animal BioSciences Facility. This facility would help researchers from multiple disci-

plines study issues related to cutting-edge animal science, including animal systems sustainability, food safety, value-added products, product development, risk assessment, and interactions among human, livestock and wildlife infectious diseases.



Rep. Monica Lindeen (D-Huntley) introduced a bill to renovate and provide much-needed buildings on our off-campus research centers. MAES facilities have not received adequate attention for many years.

What does this mean for beef producers? By adding consistency and value to the beef animal through improved genetics and backgrounding, the added value return to the beef producers in Montana should be significant, \$30 to \$50 million. If Montana can also process specialized beef products, additional value can be captured and jobs created from in-state manufacturing.

Contact your legislators if you support these projects.

Sharron S. Quisenberry

—Sharron Quisenberry, Dean of the College of Agriculture

Foodservice Partnerships Can Move the Needle for Beef

by Charlene Schuster, Executive Director, Montana Beef Council



Just the Facts

- **Beef is consumed 79.1 million times each day across America**
- **Each year 7.2 billion beef servings are eaten in restaurants...a 14% increase since 1990**
- **Casual steakhouse traffic increased 12.6% in one year**
- **Beef dominates the top 10 list of fastest growing sandwiches**

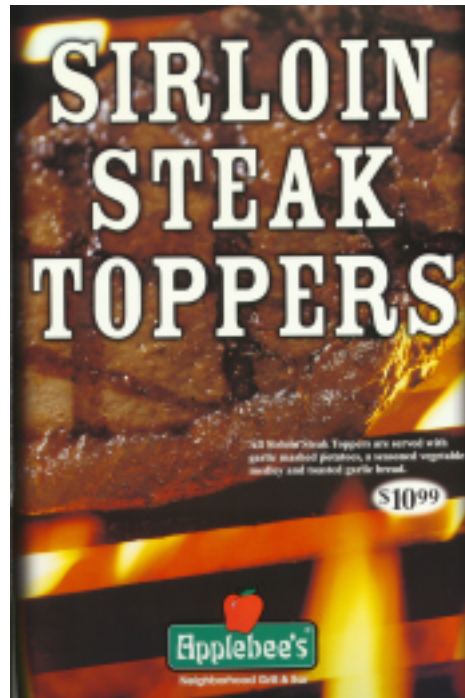
(1999 NPD/Crest Research)

Over 50 percent of consumers' food dollars are spent on food away from home, and the beef industry wants those purchases to be beef. One strategy is to work with foodservice operators to place additional beef offerings on the menu.

Two recent foodservice partnerships *are* putting beef back on the plate of restaurant consumers. A partnership with Applebee's in January and February featured a new menu item called Sirloin Steak Toppers. This promotion offered restaurant patrons the option of four different flavor profiles in toppings on a 10-ounce top sirloin. In one

restaurant during the first week of the promotion, sirloin steak toppers accounted for over 24 percent of total sales. Servers all wore "Beef: It's What's for Dinner" t-shirts touting the popular beef message. A winner will be selected from the seven Montana restaurants upon completion of the promotion.

Another foodservice partnership featuring Taco Bell's "New Grilled Steak Taco" rolled out nationwide Feb. 22 and ran through March 25. The "carne asada" style steak with creamy lime sauce is served in a soft



Partnerships between the beef industry and restaurants entice customers to try new beef menu items. The newest Applebee's promotion, sirloin steak toppers, sold well during its winter debut.

taco. Taco Bell is so convinced that this item is going to be a home run that they are investing \$14 million on the rollout. The familiar beef-check logo will appear on a ceiling banner, tray liner, register toppers and drive-thru menu extensions as well as in on-screen graphics in the national television commercials. Taco Bell projects the sales of the new grilled steak taco will hit 17 million servings, which translates to beef sales of 1.6 million pounds during the four-week promotion. Taco Bell plans to make the "grilled steak taco" a permanent addition to the menu.

Taco Bell is the world's largest Mexican fast-food chain with over 7,000 restaurants. When Taco Bell decides to add a new beef item to the menu, it can really move the needle for the beef industry.



Taco Bell is spending \$14 million to publicize the new grilled steak taco.

Beef: Questions and Answers is a joint project between MSU Extension and the Montana Beef Council. This column informs producers about current consumer education, promotion and research projects funded through the \$1 per head checkoff. For more information, contact the Montana Beef Council at (406) 442-5111 or at beefcncl@mt.net.



**“SHOW
ME THE MONEY
FOR MY CALVES”**

Don't just sit there!
Attend the 50th annual
Montana Nutrition Conference
May 1 and 2 at the GranTree Inn
in Bozeman!

MAY 1, 2001

- 12:30-1:00** Registration for the Conference, Dr. Jeff Heldt, Harvest States, Moderator
- 1:00 - 1:15** Welcome, Dr. Geoff Gamble, President, Montana State University
- 1:15 - 1:45** **BSE/Mad Cow Disease Update - What Are We Doing To Prevent Its Occurrence In The United States?**
 - Dr. Stuart Knapp, Professor Emeritus, Montana State University
 - Response From The Feed Industry, Kim Hager, Jeff Heldt, Lex Gamblin
- 1:45 - 2:30** **Why Some Alliances Will Succeed While Others Will Fail**, Randy Blach, Cattlefax, Englewood, Colorado
- 2:30 - 3:00** Questions of the Speakers
- 3:00 - 3:15** BREAK
- 3:30 - 5:30** **Show Me The Money For My Calves— A Panel Discussion**, Kim Hager, United AgriProducts, Moderator
 - Al Perez, ConAgra Better Beef, Greeley, Colorado
 - Steve Christianson, Montana Livestock Marketing, Corvallis
 - Cheyenne Cundall, coordinator, Montana Beef Network

- Dean Peterson, rancher, Judith Gap
- Rick Paskal, cattle feeder, Canada
- 5:30 - 5:45** Questions for the Speakers
- 5:45 - 6:30** Open Bar - Hors d'oeuvres
- 6:30 - 8:30** Dinner, Sherri Lee Kroon, Master Of Ceremonies
- **Activities In The College Of Agriculture**, Dean Sharron Quisenberry
- **50 Years Of The Montana Nutrition Conference**, Wayne Gipp/Denny Perry
- **Awards Presentations**, Jeff Heldt, Chairman of Montana Nutrition Conference

MAY 2, 2001

- 7:30- 8 am** Continental Breakfast
- 8:00 - 9:00** **Drought Strategies For The Next Year: What Are The Options?** Don Siefert, Silent Herder, Moderator. Pat Hatfield, Dennis Cash, Jeff Mosley and John Paterson, MSU
- 9:00 - 10:30** Graduate Student Research Paper Competition
- 10:30 - 10:45** BREAK
- 10:45 - 11:30** **Market Outlook and Identifying the Value of Feeder Cattle**, Todd Daniels, Alltech, Moderator.
 - Drs. Gary Brester and Kevin McNew, Agricultural Economics Department
- 11:30** Graduate Awards, Pat Hatfield
- 11:45** Summary and End of Conference, John Paterson

For registration information, call Anita Gray at (406) 994-3414.

Grass tetany, cont. from page 2

Q. Are there other factors which can contribute to tetany?

A. Plasma and forage calcium (Ca) levels may both be low with tetany situations.

Q. Are there other factors?

A. Nutritionists and veterinarians may also calculate a Tetany Ratio from a forage analysis:

$$\text{The tetany ratio} = \frac{\text{Potassium}}{\text{Calcium} + \text{Magnesium}}$$

- If the ratio is greater than 2.2, the forage is classified as tetany prone.
- What this means is that if the potassium levels are high and the levels of calcium and magnesium are low in the forage, then tetany may occur.
- When cattle consume cereal grain forage, the percent potassium in the forage may be high (3 to 5%) while the calcium and magnesium levels may be low.

Q. Which animals are most susceptible to tetany?

- Mature animals are far more susceptible to grass tetany than younger ones because of their inability to mobilize Mg from their bones to meet their requirements.
- Tetany usually occurs near calving time or until approximately two months after calving.
- Pastures heavily fertilized with high levels of nitrogen or pastures with high soil potassium are more likely to produce tetany-prone pastures.

Q. How do I prevent tetany?

A. Cattle should have access to Mg in either a mineral mix or in a protein-energy supplement while grazing tetany prone pastures. Based on the tetany ratio, it seems to me that also increasing the levels of dietary calcium

may be warranted. Other suggestions for prevention include:

- If initiation of grazing can be delayed, less tetany will occur.
- Graze less susceptible animals on high risk pastures; steers, heifers, dry cows and cows with calves over 4 months of age are less tetany-prone.

The interval between the first signs of tetany and death can be as short as four to eight hours.

Evaluate for tetany-prone conditions and supply Mg on a daily basis to your herd.


- Cattle that develop tetany are more prone to do so again. They should be placed on a different management program.
- If cattle will consume dry feeds on succulent tetany-prone pastures, these feeds will decrease the incidence of tetany.
- If the drinking water can be controlled, spiking the water with a soluble Mg salt may be an effective way to supply this mineral to grazing animals.

Q. Can I treat an animal afflicted with tetany?

A. The interval between the first signs of tetany and death can be as short as four to eight hours.

- One treatment that has been recommended is the I.V. injection of calcium-magnesium gluconate.
- A Mg enema is also a suggested emergency treatment. Dissolve 60 grams of magnesium chloride in 200 ml of water and place it in a collapsible plastic bottle.

Q. Any other suggestions?

- Get supplemental Mg into all of the animals in the herd as soon as possible. If the animals are familiar with eating a supplement, try and get one to two ounces of magnesium oxide consumed each day.
- Move the herd quietly to more mature pastures.
- Move the herd from the tetany-prone pasture to a location where they could be fed hay, preferable legume hay.
- Remember, Mg must be supplied on a daily basis when tetany-prone conditions exist. 

Grazing During Drought, cont. from page 1

failure to care for the land during this year may create serious consequences for decades to come.

Assess Drought Impact

How much of an adjustment is needed to your ranch grazing plan for Spring and Summer 2001? The answer depends, of course, upon how hard you've been hit by drought. The drought has not impacted everyone to the same extent, and even pastures or portions of pastures within one ranch have not been affected equally. Consider these questions to assess drought's impact:

Were weeds a problem before the drought? If weeds were a problem before the drought, they'll probably be even worse after drought. Drought stresses all plants, but weeds are usually stressed less than desirable forage plants because most weeds grow earlier in the growing season before soil moisture is fully depleted. Also, weeds are usually grazed less than other plants. When rainfall does occur, weeds are in better shape to respond and they get a jump-start on the desirable plants. Producers need to be especially vigilant about new weed infestations if they brought in hay from new sources this past fall and winter. Inspect areas where the hay was fed and plan to control new infestations this summer—before weeds get well established and before weed control becomes more costly.

Were poisonous plants common before the drought? Poisonous plant problems often worsen during or after an extended drought, especially early in the growing season. Many poisonous plants are

“weeds” that survive drought better than desirable forage plants, and many poisonous plants green up early in the season (e.g., low larkspur, death camas, and locoweed). Poisonous plant infestations tend to thicken after serious drought, but toxicity problems can be more common after drought even when poisonous plants don't increase in density. One reason for increased toxicity problems is that after a dry year there is less (if any) residual carry-over forage from the year before to buffer the toxins. Thus, dietary concentrations can reach toxic levels even when livestock don't increase their consumption of poisonous plants. A related concern for this spring is grass tetany. Without last year's residual carry-over grass to buffer the new green growth in the gut, grass tetany becomes more likely and strategic supplementation will be warranted. (see tetany article on page 2)

When was the area grazed last year? One silver lining about drought years is that much more of the grazing season usually occurs after seeds ripen and when plants are dormant. Plants are more tolerant of grazing during these later stages of plant development, so some plants may have endured less stress from grazing than in normal years. The plants stressed most by last year's drought were those grazed in early summer, because they were unable to regrow before soil moisture was depleted.

How heavily was the area grazed last year and in previous years? Light or moderate grazing doesn't harm most plants, nor does heavy (< 60% utilization) or severe use in one year if the plants are

given an opportunity to recover. Plants are stressed when heavy or severe use occurs for two or more years in a row. When drought breaks, plants grazed lightly to moderately in the past will recover from drought faster than plants that have been heavily grazed for many years.

Do plants appear stressed this spring? Stressed plants begin growth later and grow slower in spring, and most plants will be stressed after three or four drought years. Consequently, turnout in spring will likely need to be later this year in many areas across our state. The rooting depth of your forage plants and the length of drought in your area can help you judge how long plant growth will be delayed this spring. After one or two dry years, growth usually begins earlier in deep-rooted versus shallow-rooted plants because deep-rooted plants had access to more soil water and were less stressed. After an extended drought, however, deep-rooted plants may rebound slower because they remained green longer into the growing season and probably received extra grazing pressure during drought.

Grazing Strategies

Early planning will enable you to carefully consider potential alternatives for your grazing plan this summer. Waiting to plan until June or July will leave fewer options available. Some potential options include:

Reduce the Amount of Forage Needed

- Cull more heavily before the grazing season begins and before the market becomes glutted. Reduce the

cont. p. 7

number of replacements, if possible. Mature cows will survive and reproduce better than young cows or heifers that are still growing.

- Wean calves early. Dry cows consume about 35% less forage than lactating cows and 400-lb calves consume about one-third as much as mature cows.

Graze Somewhere Else

- Lease additional pasture.
- Use tame pastures, especially subirrigated or irrigated ones, more heavily than usual. The improved forage species can tolerate heavy grazing more so than native rangeland, so allocate more of the load to those pastures that can tolerate it best.

- Try to graze areas this year that didn't get much or any grazing use last year. For example, consider areas near reservoirs and springs that went dry last year. These areas may have been grazed less than in a normal year when water is available. Herding, supplemental feeding, hauling or piping water, temporary fencing or shutting off water in over-used areas can all be used to control where livestock graze. Be sure to carefully evaluate the costs and benefits of these practices versus the costs and benefits of reducing livestock numbers.


Adjust the Timing of Grazing

- Delay turnout in spring so that forage plants can recover vigor. Delayed turnout will also lessen problems with poisonous plants and grass tetany.

- In rotational grazing systems, rotate more frequently.

- Consider using any rested pastures and thereby spreading the use this year across all of your pastures.

- For early season grazing this year, try to graze any areas that were ungrazed last year or those areas that were grazed after plant dormancy during last summer's drought.

- For late season grazing this year, try to use those areas that were grazed heavily last year before plant dormancy. 

MSU College of Ag offers more new classes


Heifer Development—Kim Anderson

The Animal and Range Science Department has 19 students enrolled in the heifer development class for Spring 2001.

Students gain insight and skills through classroom discussion and hands-on experience with the Montana State University herd of replacement heifers. These students are involved in the selection of replacement heifers and in the nutritional aspects of developing heifers into functional and productive cows. In addition, students gain experience in management techniques such as pelvic measuring, reproductive tract scoring, estrus synchronization and artificial insemination through labs that encourage active involvement.

Students also consider the economic issues associated with developing heifers at home or through commercial heifer development feedlots. The goals for the class are to provide students with practical knowledge and experience that will better prepare them in making decisions involving the development of replacement heifers, whether these students are actively involved in producing beef or are employed in a related industry position. This "hands-on" course is taught by Kim Anderson, the ranch manager for the Animal and Range Sciences Department.

Range Ecology—Bok Sowell

A new range field ecology course was introduced this fall in the Department of Animal and Range Sciences at MSU. The purposes of the class were to: 1) introduce students to the field of range science and management in the field, 2) complement class work with "hands-on" field experience in natural resource management, 3) provide sophomore students with a research experience which included formulating a hypothesis, designing a project, collecting data, summarizing results and writing a paper. The theme for this year's class was to examine the impacts of prairie dogs on range vegetation. Students traveled to the Malta area for a weekend field trip, where they collected data on and off prairie dog towns and met with ranchers, BLM biologists, and Montana FW&P biologists to hear different perspectives concerning the prairie dog issue. 

Ranch Profile: *Dyer Land and Cattle, Roundup*

by Scott and Kathy Wiley

Q: Give a brief description of your operation.

A: Dyer Land and Cattle is located southeast of Roundup in the Bull Mountains. The mountains are pine covered, which was one of the reasons why we calve in the fall. Included in the operation is irrigated ground on the Musselshell River for a hay base. We have 450 to 500 mother cows. We calve in September and October, wean in February, background the calves for 45 to 60 days, then either run the calves on grass for the summer or send them directly into the feedlot. We retain an interest in the calves through the feeding phase and collect carcass data on all of the fed cattle. We use artificial insemination and usually try to get half of the cows bred AI.

Q: Why calve in the fall, and what are the main advantages of fall calving?

A: In the fall, the ground is still quite warm, so even with snow the newborn calves don't have the ice, extreme temperatures and frozen ground to contend with like spring born calves do. With fall calving we have never had to put a calf in the "hot box" then have to get the cow to "mother up" to it. We don't have the problem of pine needle abortions; the cows are still in good pastures during the last trimester of pregnancy. With warm temperatures and no mud to contend with, calf scours does not exist. An occasional pneumonia from hot days and frosty nights can occur but not very often.

With fall calving, we calve out in the pastures. This eliminated cleaning pens, night checks, scours, cows trying to steal others calves and all of the problems associated with calving in the spring in lots and confined areas. During warm weather, calves are up and nursing in no time and very rarely do we have to help or interfere in any way. This has greatly reduced labor on the ranch, the stress that comes with night calving in the spring and made calving fun. Even without night calving, we rarely lose a calf at birth unless it is an abnormal presentation during the night. Most of the time cows will graze during the night and calve in the early morning or the late afternoon as they would when fed at night. Tagging calves is about all of the labor involved in fall calving. On two different years, we have weaned a 100% calf

crop. Spring calving, the best that we ever weaned was a 93% crop, and that was with additional labor.

Another advantage to fall calving is range utilization. Cows without a calf will go farther from water, climb higher hills, and more evenly graze a pasture during the summer. Our range has shown some improvement and I can leave more grass for the wildlife. A 500-pound calf can eat a lot of grass, so with the cows dry during the summer, we can run more cows and still leave a lot more of the grass for the wildlife and for grazing in the early spring. Even with the drought of the last two years, the cows will come into the fall in condition scores of 7.

Q: Are there economic advantages to fall calving?

A: Our calves are ready to market in the spring. Calf prices are usually higher in April than in any other month. The same goes for cull cow prices—they are higher in the spring than they are in the fall on a flooded market. We have cattle for sale when supply is limited and demand is high. We can pregnancy test cows in March and market open cows in April. The calves are weaned and ready to go in April, so depending on feedlot breakevens based on the futures market, we can put them on grass for the summer or we can go directly to the feedlot.

Q: What are the major disadvantages of calving in the fall?

A: Feed costs could eat up the profits in a hurry if you let them. We have had to start feeding earlier in the fall, but with the calves weaned, we can stop feeding earlier in the spring, so total days of feeding have remained the same. We balance our rations and feed the cows only what they require in good forages and cake, and then let them eat straw to keep them full. The calves get creep feed to eliminate some of the strain on the cows from milking. The cows are in extremely good condition after a summer of grazing with no calf on them going into the fall. This can be a detriment as it is very hard to "flush" a fat cow to get her ready for breeding. Our reproductive rate has declined with fall calving, but cows also tend to stay in the herd being productive well past ten years of age.

Q: Since you are calving in September, doesn't that make your breeding season in the middle of winter?

A: Our breeding season starts the last week of November and lasts until the middle of January. We synchronize and AI the yearling heifers one week, and then a group of 100 to 125 cows each week for two weeks after that. This spreads out the labor and allows us to get that many cows bred without a lot of additional help. We are feeding the cows at this time, so it is easy to put them in a drylot to heat detect and breed. You can get storms this time of year, but heat detection of cows that are covered with snow actually makes the job easier. We have a semi-heated barn that we breed in, so inseminators are not out in the cold and wind. This time of the year, we are breeding on the shortest days of the year, not the longest, so we end up waiting for daylight at 8 o'clock in the morning instead of getting up at 4:30 to start heat detecting. Also, we are not in a big hurry to get the heat detecting done so that we can go farm, fix fence or help a neighbor brand. We have all day to devote to the AI program, therefore we do a better job.

Q: How has retained ownership enhanced your operation?

A: Retained ownership has done many things for us. First and foremost, we can gain income for the ranch. Eight of ten years a profit can be made feeding cattle. By using the hedges, some of the risk is eliminated, and on years when feeding does not look to be profitable, sell the calves. Feeding your own cattle eliminates all of the other segments of the industry from capitalizing on our improved genetics and paying us for a commodity. The only way to capture true value of the AI program, the health program and the hard work that we put into this place is to retain at least a partial ownership clear through the chain.

Retained ownership has other benefits. We began to background our calves before going to the lot with them so that we could get them through the weaning stress before they went to the lot. By doing this, we have reduced morbidity to less than 8%, mortality to less than 1% and reduced the number of realizer cattle. This makes us more profitable and makes the feeder's job easier. In addition, retained ownership changes your perspective of the industry—you no longer sell calves

right off of the cow, you are selling meat that a consumer is going to buy and eat. That makes you manage things differently.

Q: What do you do that is different?

A: At birth, our calves are castrated with bands, and given a clostridial vaccine. At branding time, all that the calves get is a neck brand. The packers pay us a premium for the neck branded hides so all of our brands go on the neck. We have discontinued the practice of implanting at branding as research has shown that too

many implants can lead to tough eating experiences for the consumer. Also, by not implanting at branding, the natural beef markets are still open to us if we decide to market in that direction. At weaning time, the calves are given a clostridial, a pasturella and an IBR/BVD vaccination. Two or three weeks later they get a booster for the IBR/BVD and a pour on wormer/antiparasitic. All vaccinations are given subcutaneously if possible, and always in the neck. Who

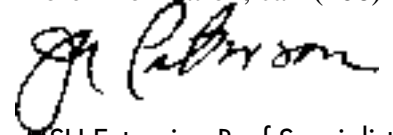
would want a round steak with a big injection site blemish in the middle of it? During the backgrounding, the calves are fed hay, and if they are going into the feedlot, they get commercially made pellets to keep them gaining. They are all individually identified and individually weighed so that we can trace inferior animals and carcasses back to the sire and dam. If we are using a sire whose offspring cannot grade choice and who cannot gain well in the feedlot, I need to know. After 45 to 70 days here at the ranch, the calves are sent either out to grass or directly into the feedlot.

Q: What do you see as the biggest challenges facing your operation?

A: As far as the ranch management goes, I think that increasing our pregnancy rate is my biggest challenge. After spending years saving the best feed for spring and going as far as possible into the fall without feeding anything, it is mentally hard to feed the best first and as soon as it is needed. You have to think backwards of tradition sometimes to make this work, but that is also one of the things that this entire industry needs to do to make it profitable. One of the best things about fall calving and retaining ownership is the flexibility that you have with marketing. You can go to grass or go to the feedlot depending upon the market situation, so I guess another challenge is to be able to predict the future. ■

“You have to think backwards of tradition sometimes to make this work, but that is also one of the things that this entire industry needs to

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