

Wheeler County Farm & Ranch

FOCUS

December 2015



Dale Dunlap, County Extension Agent-AG/NR

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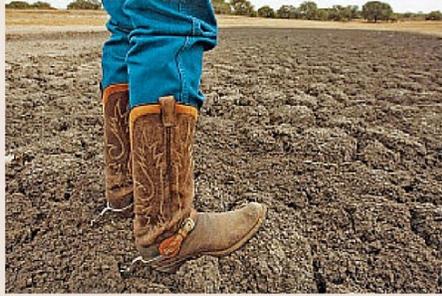
Mineral supplements for stocker grazing small grains pasture

Cattle Trail Cow and Calf Conference

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RANCHING 4 TOMORROW



Speakers to Include:

Dr. Ted McCollum - Extension Beef Cattle Specialist

Dr. Morgan Russell - Extension Range Specialist

Dr. Tim Steffens - Extension Range Specialist

Special Guest - Award Winning Producer

AN IN-DEPTH LOOK AT THE ADVANTAGES OF PROPER MANAGEMENT OF RANGE
AND INCOME FOR A SUSTAINABLE OPERATION

Intelligent Money Management
Ensuring Future Stability

Prescribed Burn Techniques
Proper Range Management

Producer and Expert Panel Discussion

TEXAS A&M
AGRI LIFE
EXTENSION

IDEA^{Ag} Amarillo
Farm and Ranch Show

December 1, 2015
1:00PM - 5:00PM

Grand Ballroom - Amarillo Civic Center

COST - \$10 at the door

PLEASE RSVP BY MONDAY, NOVEMBER 23, 2015

Texas A&M AgriLife Extension | Potter County | 806-373-0713

Seeking Solutions to Profitability with Small Grains

Wednesday, December 2, 2015

1:00 p.m. – 6:00 p.m.

Amarillo Farm & Ranch Show

Sponsored by Texas A&M AgriLife Extension Service

- 1:00p.m.—Registration and CEU signup (there will be a \$10 registration fee)
- 1:30p.m.—Welcome, Introductions, Interactive Budgeting
Jody Bradford, CEA-Ag/NR, Carson County
- 1:45p.m.—Developing New Markets
Steele Fischbacher, Director of Policy and Marketing, Texas Wheat Producers Association
- 1:55p.m.—Small Grains Decisions-Profit Potential and Future Decisions
Dr. Steve Amosson, Economist, Texas A&M AgriLife Extension
Grazing vs. Haying vs. Harvest decisions
Expectations related to markets for this crop year
Marketing Strategies; what to consider
- 2:15p.m.—Genetic Emphasis on New Variety Development and High Plains Challenges for Small Grains
Dr. Jackie Rudd, Wheat Breeder, Texas A&M AgriLife Research
Small Grains Decisions (Certified vs. Registered vs. Farmer Caught Seed and
Selecting a Variety)
Dr. Clark Neely, Agronomist, Texas A&M AgriLife Extension
- 3:05p.m.—Break
Moderator-Rick Auckerman, CEA-Ag/NR Deaf Smith County
- 3:15p.m.—Variety Selection; Budget Analysis
DeDe Jones, Risk Management Specialist, Texas A&M AgriLife Extension
- 3:30p.m.—What production decisions may increase chances for profitability?
Dr. Calvin Trostle, Agronomist, Texas A&M AgriLife Extension
Soil Testing; How does it help you save dollars?
Fertility Timing, Rates, Alternatives
Fertility timing comparing graze out, haying/silage or harvest
- 4:20p.m.—Fertility Inputs; Budget Analysis
DeDe Jones, Risk Management Specialist, Texas A&M AgriLife Extension
- 4:35p.m.—Small Grain Diseases and Viruses-Decisions Going Forward; what can we expect?
Dr. Ron French, Plant Pathologist, Texas A&M AgriLife Extension
Virus vs. Disease
Potential for disease occurrence and what to expect this coming season
Making the decision to use foliar application and the window of opportunity
Cost of Genetic Protection vs. Foliar Application
- 5:25p.m.—Disease/Virus Control; Budget Analysis
DeDe Jones, Risk Management Specialist, Texas A&M AgriLife Extension
- 5:40p.m.—Evaluations and CEU Certificates
Austin Voyles, CEA-Ag/NR, Potter County

For more information contact the Wheeler County Extension Office 806-826-5243

Cow/Calf Video Clips

For great video clips on many different topics on cow/calf management, go to <http://sunup.okstate.edu/category/cc> .
The short video clips are by Dr. Glenn Selk, Oklahoma State University Extension Beef Cattle Specialist.

2016 Wheeler County Beef Program Series @ Wheeler Ag and Family Life Center

10AM, Friday Jan 8th

Bull Selection/Visual Appraisal
EPDs and what they mean
Economics of EPDs
Cattle Size and their Economics

10AM, Monday Feb 29th

Bull Diseases/Vaccinations for Bulls
Breeding Soundness
Fertility Testing/Factors Affecting Fertility
Managing Young Bulls/Bull Development

10AM, Wednesday March 23

Vaccination Programs/ VAC 24, 34, 45 / Vaccine Mgmt- Killed vs. Modified Live
Vet Feed Directives/Antibiotics/Vet, Client Relationships
Common Diseases and Signs to look for
Estrus Synchronizing for Efficiency/Sexed Semen Artificial Insemination

MORE INFORMATION TO COME

Mineral supplements for stockers grazing small grains pasture

Gazing out across a field of green wheat or rye or triticale forage, one might assume the nutritional needs of stocker cattle are being adequately supplied by the forage. However, concentrations of macro- and trace minerals can range from deficient to adequate in these forages. Relative to calf requirements, the calcium concentration in small grains forages ranges from adequate to marginal to very deficient in some instances, while phosphorus can be slightly deficient to adequate. Magnesium concentrations can be low relative to requirements of a lactating cow but marginal to adequate for stocker calves. Copper and zinc, two trace minerals of concern, also range from very deficient to adequate. Mineral deficiencies can retard growth and impair immune function. Calcium is involved in smooth muscle contraction and a calcium deficiency may play a role in the incidence and severity of bloat. Research has demonstrated that stocker cattle grazing small grains pastures will respond efficiently to a complete mineral supplement. "Complete" meaning a supplement containing salt, macro-minerals and trace minerals in appropriate concentrations. On wheat pasture in northwestern Oklahoma, providing a complete mineral supplement to stocker cattle increased daily gain 0.50-0.57 lb compared to no supplement (no salt or other feeds). In another 4 year trial in Oklahoma, daily gain was 0.24 lb higher when stockers on wheat consumed a complete mineral supplement versus grazing with no supplements. The responses in these two studies occurred with average mineral supplement intakes ranging from 0.16 to 0.46 lb/day. Based on these responses, providing a mineral supplement would have improved 120 day gains by 29 to 60 lb/head with mineral consumption ranging from 19 to 55 lb/head. If the value of added gain on a stocker calf is \$1.00/lb, in the worst case scenario of 29 lb added gain and 55 lb mineral consumption, the breakeven cost for the mineral supplement would be about \$1050/ton. In addition to supplying necessary mineral elements to stockers, mineral supplements are a means of delivering ionophores that can further enhance weight gain. The 4 year Oklahoma study mentioned previously also compared a mineral+ionophore (Rumensin @ 1600 gm/ton mineral) to no supplement or mineral supplement without ionophore. Including an ionophore in the mineral supplement increased daily gains another 0.23 lb/day compared to mineral only while the ionophore+mineral combination increased daily gain 0.46 lb/day compared to no supplement. Average consumption of the ionophore+mineral supplement was 0.15 lb/day. So, across a 120 day grazing period, including the ionophore in the mineral would have added another 28 lb compared to mineral alone and 55 lb compared to no supplement. Assuming a daily intake of 0.20 lb/day of the ionophore+mineral, the 120 day consumption would be 24 lbs/head. Compared to no supplement, the breakeven cost of the ionophore+mineral supplement would be over \$4000/ton if value of added weight on the stocker calf is \$1.00/lb. Bottomline, forage analyses has shown that mineral concentrations in small grains pasture can be marginal to deficient and research has demonstrated that stocker cattle grazing small grains forages will respond efficiently and economically to mineral supplements.

Cattle Trails Cow-Calf Conference

December 3, 2015



• AGENDA •

Oklahoma and Texas are famous for their cattle heritage. A large part of this heritage was the cattle drives. Cattle drives in the late 1800's moved millions of head of cattle from central and south Texas, through western Oklahoma, to the railheads in Kansas and in some cases as far north as Montana. Two of the more famous cattle trails were the Chisholm Trail and the Great Western Trail. The Chisholm Trail started in central Texas and crossed the Red River northwest of Nocona, Texas. It moved up through central Oklahoma near the towns of Waurika, Duncan, and Oklahoma City. The Great Western Trail began near Bandera, Texas and moved cattle through central Texas passing east of Abilene, Texas. The trail crossed into Oklahoma at the historic Doan's Crossing near Vernon, Texas and proceeded through Western Oklahoma to its conclusion near Dodge City, Kansas.

The land area between these two cattle trails still record cattle movements. Today, it is either in the mode of cow-calf operations or stocker cattle movements. This area is now the home of the Cattle Trails Cow-Calf Conference.

The Cattle Trails Cattle Conferences are a joint effort between Oklahoma Cooperative Extension Service and Texas A&M Agrilife Extension Service. The vision of the planning committee is to create annual conferences that will include up-to-date information on topics that will influence cattle profits. In effect, the conference will assist cattle owners and operators in driving their operations to profits.

The expected audience is cattle owners and operators from the Southern Oklahoma and North Texas area. The conference alternates between Oklahoma and Texas each year. This winter the Cow-Calf Conference will be held at the MPEC (Multi-Purpose Event Center) in Wichita Falls, Texas on December 3, 2015. The registration fee is \$25 per participant. This will include a noon meal, break refreshments and materials of the topics discussed.

Pre-registration is encouraged for meal count.

8:00 - 8:30	Registration	Mr. David Graf Wichita County Agricultural Extension Agent Texas A&M Agrilife Extension Service Wichita Falls, Texas
8:30 - 8:45	Welcome	Mr. Stan Bevers Professor and Extension Economist Texas A&M Agrilife Extension Service Vernon, Texas
8:45 - 9:30	Key Performance Indicator Targets for Cow-calf Operations	Dr. Ron Gill Associate Department Head, Animal Science Professor and Extension Livestock Specialist Texas A&M Agrilife Extension Service College Station, Texas
9:30 - 10:30	Safety: Cattle Flow and Calf Design Concepts for Cattle Processing Areas	Dr. Derrill Peel Professor and Extension Livestock Economist Oklahoma Cooperative Extension Service Stillwater, Oklahoma
10:30 - 10:45	Break	
10:45 - 11:30	Beef Cattle Market Outlook and Update	Dr. Dave Luhn Associate Professor and Extension Beef Cattle Specialist Oklahoma Cooperative Extension Stillwater, Oklahoma
11:30 - 12:15	Supplemental Programs for the Cow Herd	Dr. Truan Butler Associate Professor and Forage Research Agronomist Samuel Roberts Noble Foundation Ardmore, Oklahoma
12:15 - 1:15	Lunch	
1:15 - 2:05	Forage Systems for the Southern Great Plains	Tiffany Dowell Lashmet Asst. Professor and Extension Agricultural Law Specialist Texas A&M Agrilife Extension Service Amarillo, Texas
2:05 - 3:00	What Every Landowner Should Know About Grazing Leases	
3:00 - 3:15	Evaluation & Wrap-up	

Yes, Sign Me Up

For the 2015 Cattle Trails Cow-Calf Conference!

NAME _____
 ADDRESS _____
 CITY _____
 STATE/ZIP _____
 PHONE _____
 EMAIL _____

My check for \$ _____ is enclosed

PLANNING COMMITTEE

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Registration \$25

Make checks payable to: Wilbarger Project Fund

Contact your local County Extension office or mail to:
 Texas A&M Agrilife Extension Service
 Attention: Allison Ha
 P.O. Box 2159
 Vernon, TX 76385

Phone: 940-552-9941
 Ext 225 or email:
 Allison.Ha@ag.tamu.edu

Supplementing Beef Cows

On average, nearly 40% of total operating costs in cow-calf enterprises are associated with nutrition because purchased and harvested hay and concentrate feeds make up the majority of that cost. Consequently, the nutritional program represents a major target to trim cost of production. However, it is widely recognized that nutritional status of the cow is closely related to reproductive performance. The first step in implementing and maintaining an efficient supplementation program for grazing or forage fed cattle is to identify specific supplementation needs. Nutrient requirements for cattle of various stages of production, mature size, age, and productivity vary. Computer software, such as OSU Cowculator and OSUNRC2002, can better pinpoint an animal's nutrient requirement at a specific time and in a specific situation. However, many factors influence both components in this formula. Forage intake is dramatically influenced by forage quality as well as forage availability, and both of these factors can vary dramatically from year to year and month to month. Cows grazing dormant native pastures will consume about 1.8-2.0% of body weight. The next step is to estimate nutrient content of standing forage or hay. These values are variable, depending on forage type, maturity, and weathering. The most accurate method to determine supplemental needs for cows that will receive primarily a hay diet is to have the hay analyzed for nutrient concentration. Many low-cost producers do not feed hay and prefer to use their cows to harvest standing forage. If forage type and conditions are relatively constant from year to year, producers can develop a consistent supplementation program and fine tune it when necessary. For example, when cattle graze native grass pastures, forage quality consistently declines through the summer, fall and winter months. Protein supplementation needs are quite predictable and may vary more due to changing genetics or time of calving than due to forage conditions. An 1,100 cow requires about 1.8 lb of protein and 12 lb of TDN per day in last 1/3 of gestation and late winter native range would be expected to contain only 4% protein and be around 49% digestible. Using these figures the following table compares cow requirements to 3 different supplements and their costs.

Table 3. Nutrient supply compared to requirements for 1,100 lb beef cow grazing native range during last 1/3 of pregnancy.

	Crude Protein, lb per day	TDN, lb per day	Supplemental Cost/day
Required	1.80	12.0	
Supplied by forage	0.88	10.8	
Supplemental need	0.92	1.20	
Nutrients supplied by supplement alternatives.			
5 lb of 20% CP supplement	1.0	3.75	.68 @ 273/T
3 lb of 32% CP supplement	0.96	2.25	.55 @ 368/T
2.5 lb of 38% CP supplement	0.95	1.9	.51 @408/T

Supplements meet cow requirements during last 1/3 of gestation and the cheapest supplement per lb of protein and per day is the 38% supplement. Feeding a 20% is overfeeding TDN and costs more per day to maintain the same crude protein level. After calving is when the cows TDN requirement increases and a producer should switch to the 20% supplement to provide more energy. The whole feeding program comes down to cost efficiency while maintaining productivity.

Significant costs in wintering cows and stockers on dry grass are the labor and transportation required to feed supplements. Adequate research has shown that cows do not need to receive protein supplements every day. In one experiment using cottonseed meal as the protein source, cows were fed the same weekly amount of supplement on two, four, and six day intervals. Although cow weight loss was slightly less when cows were fed on four-day intervals, there was no difference in cow weight loss between two and six-day intervals. Calf weaning weights were similar among all treatments. Many ranchers follow the practice of feeding twice the daily allowance on alternate days or feeding three times per week to eliminate Sunday feeding. With interval feeding, timid cows are more likely to receive their share of supplement. Small grains pastures can be used to supplement cow herds in winter. Because these are high quality forages, full time grazing by beef cows results in considerable waste of valuable nutrients. A dry cow grazing continuously on small grain pasture consumes up to 10 times her requirement in protein. More efficient use of these forages is accomplished by limit-grazing, restricting access to green pasture to a few days or hours each week, and providing low quality harvested or standing forage during the remaining time. Labor availability, location of the small grains pasture and the low quality forage resource, and weather conditions frequently limit the use of limit-grazing systems. For these reasons producers frequently use an interval limit-grazing approach. Rather than giving cows access to small grains pasture for a few hours each day, cows are provided access to small grains pasture for one "fill-up" grazing bout (3 to 5 hours) for every two to six days grazing the low quality forage or consuming the low quality harvested forage.

Haygrazer Forage Variety Demonstration

Matt Moore Farm

Strip pot: 2 acres in size for each variety

Forage Samples taken: boot 7/30/15, head 8/20/15

Planting Date: June 3, 2015

Fertilizer: At planting with drill 91lbs/A, dry of 19-15-20

Harvest Date: August 6, 2015: Each plot of 2 acres was harvested separately and bales were weighed to get yields.

Soil Moisture: Marginal at planting , varieties came up to partial stand and then field received rain and remainder of seed came up 10 days later to make full stand.

BOOT	8 lb. Seeding Rate					12 lb/A seeding Rate				
	Yield/ac	Moisture %	CP %	ADF%	TDN%	Yield/ac	Moisture %	CP%	ADF%	TDN%
Variety	100% Dry Matter					100% Dry Matter				
Sweeter N Honey	3690	64.8	6.9	33.3	65.1	3880	65.5	6.9	31.8	66.9
Croplan Genetics 1731	2930	65.3	9.1	32.6	66	3610	60.2	7.0	31.8	66.9
TE Goldmaker	2920	67.8	7.0	32.7	66	3900	69.6	6.4	30.9	67.8
Golden Acres 753 BMR	2400	64.2	7.4	31.4	67.8	2860	65.5	6.8	32.4	66

HEAD	8 lb. Seeding Rate					12 lb/A seeding Rate				
	Yield/ac	Moisture %	CP %	ADF%	TDN%	Yield/ac	Moisture %	CP%	ADF%	TDN%
Variety	100% Dry Matter					100% Dry Matter				
Sweeter N Honey	NA	66.9	4.4	30.5	68.7	NA	62	4.7	31.9	66.9
Croplan Genetics 1731	NA	66.1	4.7	30.7	67.8	NA	66.8	5.5	30	68.7
TE Goldmaker	NA	71	6.5	32	66.9	NA	70.3	6.1	30.9	67.8
Golden Acres 753 BMR	NA	67.8	5.4	30	68.7	NA	67.4	5	29.6	69.6

Nutrient requirements of a 1200 lb cow in last third of gestation (averaged for last 3 months)

Estimated nutrient intake by 1200 lb cows

Sweeter N Honey	8	BOOT
Croplan Genetics 1731	8	BOOT
TE Goldmaker	8	BOOT
Golden Acres 753 BMR	8	BOOT
Sweeter N Honey	8	HEAD
Croplan Genetics 1731	8	HEAD
TE Goldmaker	8	HEAD
Golden Acres 753 BMR	8	HEAD

TDN, %	CP, %	TDN, lb/d	CP, lb/d
52.6	7.9	12.9	1.9
65.1	6.9	22.4	2.4
66	9.1	23.3	3.2
66	7.0	23.3	2.5
67.8	7.4	25.3	2.8
68.7	4.4	26.3	1.7
67.8	4.7	25.3	1.8
66.9	6.5	24.3	2.4
68.7	5.4	26.3	2.1
58.7	10.1	15.7	2.71
59.9	10.7	16.7	2.97

1200 lb cow one month after calving has the following requirements @ 20 lb of milk/day

1200 lb cow two months after calving has the following requirements @ 20 lb of milk/day

Producers can see that hay alone will not meet requirements after calving. Food for thought-have hay tested and know if extra supplementation is needed.