Master Cattleman Quarterly

Oklahoma State University

EPD Primer

Megan Rolf, Oklahoma State University

What are they?

Expected Progeny Differences, better known as EPDs, have been used in the beef industry since the 1970s. However, confusion still surrounds their application. EPDs describe exactly what their name implies: The differences which we would expect to see between progeny of two different animals. This statement assumes that we are mating the animals to animals with the same genetic merit. For example, two potential sires mated to the same group of cows.

What do all these numbers mean?

If I am considering using two potential herd sires shown in the table below, I am going to be interested in the difference between their EPDs (the last line in the table), rather than the actual EPD value itself. Based on this information, I would expect that sire 2's progeny will be, on average, 1.3 lbs. heavier at birth, 5 lbs. heavier at weaning, and 2 lbs. heavier at yearling than the progeny of sire 1. Keep in mind that comparisons between EPDs of two different sires are ONLY valid between bulls of the same breed. For example, you cannot compare a Simmental with an Angus bull and get a valid comparison.

Table 1: Comparison of EPDs on two prospective herd sires.

Trait	Birth Weight	Weaning Weight	Yearling Weight
Sire EPD	1.0	23	48
Sire 2 EPD	2.3	28	50
Difference	1.3 lbs	5 lbs	2 lbs.

If the ranking of a bull's EPD in comparison to all other bulls in that breed is of interest, the rank can be located in the sire summary published for that bull's breed. Simply mating to animals with the largest or highest ranking EPDs is not always the best strategy for genetic improvement. It is important to consider the resources (labor, forage, feed, etc.) available to you and to select bulls and females that will generate optimum performance (not maximum!) given the resources available in your production environment.

How good are EPD predictions?

All EPDs have an associated accuracy value that is typically listed below the EPD (for an example, see the table below). The accuracy value reflects the confidence in the EPD prediction and will be reflected as a number between 0 and 1. Zero means that there is no confidence in the EPD prediction while a 1 would mean complete confidence in the EPD prediction. Generally, EPDs on yearling bulls will be low (between 0.05 and 0.35) and will increase over time if performance records for the bull's progeny are reported to the corresponding breed association. Commonly used AI bulls will often have EPD accuracies that exceed 0.8 and are considered proven sires because the recorded evidence gives us a high degree of confidence in the EPD prediction.

Even low accuracy EPDs provide a more direct route to select for the animal's genetic merit than just evaluating these traits by sight (phenotype). Visual evaluation of an animal's phenotype should only be used in cases where there are no EPD predictions for the trait (soundness and movement, for example). In addition, use of high accuracy bulls in an AI program can help to manage risk at breeding time by allowing the breeder to choose bulls that possess the characteristics they desire with a greater confidence than simply using a yearling herd sire.

How do I use them?

Anyone currently aware of EPDs and genetic improvement trends knows that the number of EPDs provided by breed associations is increasing. There are more EPDs published

Vol. 16: Sept. 2012

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EPD Primer (cont.)

Trait	CED	BW	WW	YW	MA	SC
EPD	10	1.3	25	54	6	-0.1
Acc	0.15	0.23	0.26	0.12	0.05	0.14

than any single producer can, or should select for at one time. It is important to identify those EPDs that are important to your production system and to select using only those metrics. For example, identify important output traits (such as weaning weight) and traits limiting in the environment (like milk production) and then choose the EPDs that best fit those parameters and select only on those EPDs. It is important to monitor your genetic progress by recording performance data for the offspring you produce. For commercial producers, it is not important to record as much data as should be expected from a seedstock enterprise, but it is still a good idea to collect calving ease data (assisted vs unassisted), relevant output data (weaning weights, if selling at weaning), and cowherd data (mature weight, etc.), as well as any additional data on traits important to your production enterprise. Remember, once you have accumulated a group of animals that fit your environment and available resources well, sometimes the best genetic change is no genetic change!

Winter Forage Options

Daren D. Redfearn, Extension Forage and Pasture Management Specialist, Oklahoma State University

The majority of Oklahoma remains in an extreme to exceptional drought. This means that between 6 to 15 inches of precipitation is needed to end the current drought. Some areas have received beneficial precipitation within the past few days and weeks which has some pastures showing signs of regrowth. For bermudagrass pastures, it is important to remember that a modest level of soil fertility is needed to increase the probability of regrowth this fall when precipitation occurs. A modest fertility level will also support earlier recovery for pastures next spring.

Bermudagrass pastures that are dormant and grazed short will take some time and moisture to recover. Most pastures will begin to show signs of regrowth with as little as 1/3 to 1/2 inch of rain. However, additional precipitation is necessary for adequate forage production. Most bermudagrass pastures will need at least 1 1/2 inches of precipitation and 30 days of regrowth to recover enough to begin grazing and 5 or 6 inches of precipitation so that growth can continue until first frost. If soil P and K are adequate, applying a small amount of N to bermudagrass with take advantage of any late summer precipitation. Ideally, the precipitation should be slow enough that it results in minimal runoff. The fall growth potential of summer grass pastures depends on the timing and amount of rainfall.

Many bermudagrass pastures grazed short. Thus, the opportunity to successfully sod-seed small grains is a good option. Most of the seeding failures of small grains occur as a result of too much warm-season grass competition. In many areas, traditional wheat pasture will offer the most reasonable option for fall forage production. However, in some instances, planting one of the other small grain crops could increase the forage production potential. For more information on small grains, see OSU Fact Sheet PSS-2701 on **Sod-seeding Small Grains into Bermudagrass Pasture**.

In the eastern half of Oklahoma and some areas of southwestern Oklahoma, fertilizing bermudagrass and/or tall fescue pastures with 50 to 60 lbs N per acre in late August could result in available pasture by early December. With some timely rains, it may be possible to provide some fall pasture growth from bermudagrass or tall fescue that could be grazed as early as December. For management specifics on stockpiling forage, please see OSU Fact Sheet ANSI-3035 on managing **Bermudagrass Pasture to Reduce Winter Hay Feeding in Beef Cattle Operations**.

The best options for fall and winter forage are those that have been successful in previous years for fall, winter, and spring forage production. Regardless of the forage production option, we need moisture. Soil moisture is more or less depleted in most areas, so we will need about 5 to 6 inches to produce 1 ton of forage. This moisture will need to fall in at least two events for the perennial pasture options and probably three events for the annual pasture options. Although these are the most reasonable options, they are also **highly risky** options due to the current lack of soil moisture across the state.

Prepare for Long-Term Drought

Eric A. DeVuyst, Extension Economist, Oklahoma State University

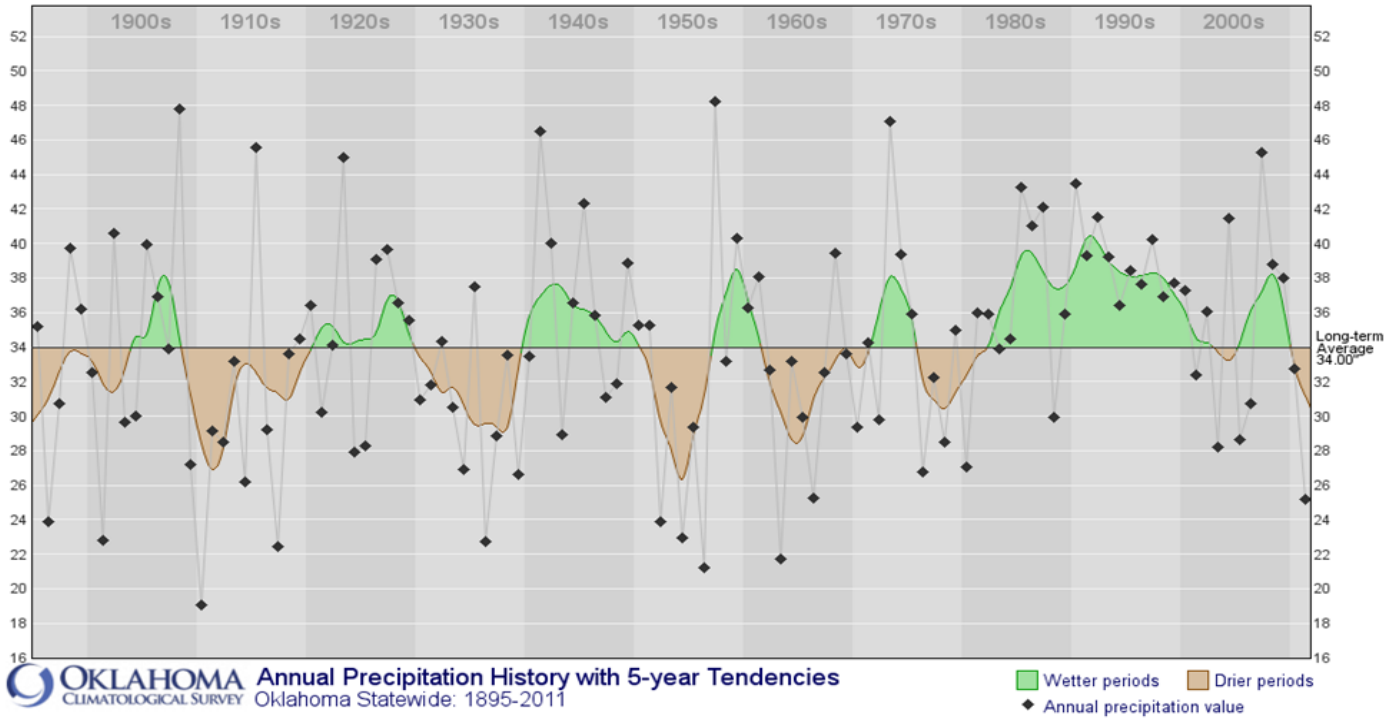
Data from the Oklahoma Climatological Survey shows a series of long-term droughts each followed by a wet period. Since 1900, Oklahoma has experienced six droughts lasting about ten (+/-) years each. The last of these long-term droughts ended in the early 1980s, meaning we have a generation of agricultural producers who have never experienced long-term drought.

The current drought began in fall of 2010. If it follows historical patterns, we are at the beginning of this drought. So, we could be in for another eight (+/-) years of drought. This necessitates a radical change in management for many Oklahoma producers. Forage management is increasingly important in drought. Producers need to begin managing as if 2011 and 2012 were the norm, rather than the exception. Stocking rates are necessarily lower. During long-term drought, pastures are especially susceptible to damage from over-grazing. Timing of haying of native meadows will need to be earlier in the summer, with May and June cuttings, to assure quality and enable native stands to recover and reseed. Turning out cows on these meadows needs to be delayed until after stands have formed seed heads to protect future production.

By reducing stocking rates and better managing forage stands, producers put themselves in a position to maintain future years' forage production and to take advantage of years with more precipitation. Years in the middle of a long-term drought with good precipitation give producers options if they've managed their forage stands for long-term drought. In these years, they can bank/sell hay, lease grazing out, or run stockers. Alternatively, producers failing to manage herd size and forage can expect rapid stand deterioration and poor herd performance. Profits will rapidly fall in future years. Post-drought recovery will also be longer for these producers.

The financial implications of drought have "long-tails," meaning that the multiple-year reduction in profits will last well after the drought ends. Producers who rely on cow-calf income for a significant portion of their income and debt-repayment capacity need to consider ways to supplement incomes. Custom work for neighbors and part-time or full-time off-farm employment may be a necessity to survive long-term drought.

We all hope that this drought ends soon, but hoping that the drought ends is not a strategy for financially surviving drought. Re-evaluation of the herd size that your forage resources can support and assessing your haying and grazing practices is necessary to financial survival in long-term drought. Also, you need to assess future income and repayment capacity with a reduced herd size. Alternative revenue sources may be necessary to augment cow-calf income in order to meet financial demands of the ranch and family living needs.



Herd Bull Investment—Annual Bull and Per Cow Cost Calculation

Damona Doye, Extension Economist, and Roger Sahs, Extension Assistant, OSU

In most cases, the decision to purchase a herd bull relates to an investment that is expected to pay out over a productive life ranging from 3 to 5 years. While the bull purchase price may seem expensive, the investment in a higher priced bull can contribute to improved production of market-preferred calves and better weaning weights. Thus the investment may be justified, particularly when viewed in relation to the number of calves the bull can sire over his useful life. In many cases, the salvage value (the net sales value when the bull is culled) helps offset a substantial portion of bull purchase cost, which reduces the total depreciation cost of a bull. With ownership costs (depreciation, death loss and interest cost) prorated over the number of females serviced and calves produced during the bull's productive life, a decision-maker can approach the potential investment on a sound basis.

A spreadsheet decision tool is available to help producers put the cost of maintaining a bull into proper perspective with respect to both cost and production (see agecon.okstate.edu/extension under software tools). Annual bull cost is calculated on a: 1) per cow basis, 2) per calf weaned basis and 3) a per cwt. of calf weaned per cow exposed basis. This tool provides information on the change in bull cost per cow with a change in number of cows serviced, along with the change in weaning weight required to pay for a higher priced bull. This provides insight into what the market would have to pay to justify paying more for a herd bull that could produce a more marketable calf.

The usefulness of this tool is its capability to quickly evaluate the impact on the cost of a bull by changing different variables of interest including the bull's purchase cost, estimated salvage value, and expected economic life and interest rate to be used in calculating the cost of capital used in the bull investment. These values are used to calculate the ownership costs, which become fixed costs once the bull is purchased.

Annual bull costs are grazing, feed, and veterinarian costs, including the annual breeding soundness exam. The bull cost per cow is calculated by dividing the ownership and annual bull cost by the number of cows exposed per year to the bull. The bull cost per calf weaned and per cwt of calf weaned are based on data entered regarding the % weaned calf crop and weaning weight.

To evaluate the impact of changes in the number of cows serviced by the bull annually, a sensitivity table is included. The bull cost per cow is quite sensitive to the number of cows serviced, which reinforces the importance of matching herd size to bull capacity.

Bull Investment Cost Analysis

Texas Agrilife Extension and Oklahoma State University

Developed by
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Update by
Damona Doye and Roger Sahs, Agricultural Economics, Oklahoma State University, and Lawrence Falconer, Texas Agrilife Extension Service

Purchase Price of Bull	$4,000		
Useful Life (Years)	4		
	Wt. Lb./Hd.	$/cwt	$/Head
Bull Salvage Value	2,000	$85.00	$1,700
Interest Rate Used for Opportunity Cost	6.0 %		
Average Investment for Bull			$2,850
Cows Exposed to Bull Annually	25		
Weaned Calf Crop %	85.0 %		
Average Weaning Weight	525 Lb.		
Weaned Calf Price	$140 $/cwt		
Calves Weaned Per Year	21		
Calves Weaned During Useful Life of Bull	84		
Pounds Weaned per Exposed Female	446 Lb.		$735.00

Operating Cost Item		Annual Bull Cost	Annual Bull Cost per Cow Exposed	Annual Bull Cost per Calf Weaned	Annual Bull Cost per Cwt. Weaned
Grazing and Supplemental Feed		$450.00	$18.00	$21.43	$4.08
Veterinary Medicine		$35.00	$1.40	$1.67	$0.32
Other Cost		$0.00	$0.00	$0.00	$0.00
Annual Interest on 1/2 of Operating Cost		$14.55	$0.58	$0.69	$0.13
Annual Operating Cost		**$499.55**	**$19.98**	**$23.79**	**$4.53**
Ownership Cost					
Depreciation		$575.00	$23.00	$27.38	$5.22
Average Annual Interest Cost*		$171.00	$6.84	$8.14	$1.55
Death Loss (% of Purchase Cost)	1.0	$40.00	$1.60	$1.90	$0.36
Annual Ownership Cost		**$786.00**	**$31.44**	**$37.42**	**$7.13**
Annual Total Cost		**$1,285.55**	**$51.42**	**$61.21**	**$11.66**

Annual Bull Cost for Various Bull Purchase Prices

		Annual Bull Cost per Cow	Annual Bull Cost per Cwt. Weaned	Change in Bull Cost per Cow	Pounds of Weaned Calf per Cow*
Purchase Price Increment	$500 per head				
Price of Weaned Calf	$140.00 per cwt				
		$/Cow	$/Cwt.	$/Cow	Lb.
Bull Purchase Price	$2,500	$34	$8	-$17	-$12
	$3,000	$40	$9	-$12	-$8
	$3,500	$46	$10	-$6	-$4
Base Price	**$4,000**	**$51**	**$12**		
	$4,500	$57	$13	$6	$4
	$5,000	$63	$14	$12	$8
	$5,500	$69	$15	$17	$12

*Change in pounds weaned per exposed female or percent weaned times average weaning weight

Drought Feeding Considerations for Fall and Winter 2012

David Lalman, Animal Science, Oklahoma State University

The Southern Great Plains region was fortunate to have a tremendous wheat crop in 2012. From that crop a lot of cool season annual forage was harvested to help replenish the depleted hay supply. However, after one of the driest months of May on record, dry conditions have persisted throughout much of the growing season. As a consequence grass hay yields have been…once again…in the 50 to 75% range of long term averages. Certainly, pasture conditions are poor throughout much of the region, hay is very expensive and difficult to find, and feed prices are extremely high. Cattle operations are once again forced to liquidate animals or consider feeding options. Like never before, producers should consider methods to improve efficiency of harvested forage use. Fortunately, a few relatively simple concepts are available that could make a dramatic impact. In fact, when combined, these strategies could cut the need for hay by at least one third!

Ammoniating low quality roughage

Much like last year, producers in the Southern Great Plains will be forced to utilize lower quality forage resources to maintain cows through the coming winter. Products like corn stalks, milo stalks, and wheat straw will be common feed resources. In addition, much of this year's prairie hay crop was diluted by mature cool season annual grasses, resulting in lower hay quality. Consider using hay ammoniation technology on these low quality forages. The chemical change that occurs during the ammoniation process increase crude protein content by about 5 to 8 percentage points, the energy value by an average of 11 percentage points and intake by an average of about 20 percent…a truly amazing transformation. The other tremendous benefit this year is that ammoniated hay will require very little, if any, supplementation for gestating cows. Our recent cost estimates suggest that the process will cost about $25 per ton of hay, give or take. Ammoniating hay is laborious and out of most people's comfort zone. However, of the 21 years I have been doing extension work in the beef industry, this is the year to take advantage of this little-used management technique. Detailed information about the process of ammoniation is available through OSU publication number 2243 (http://pods.dasnr.okstate.edu/docushare/dsweb/Get/Document-2054/F-2243web.pdf)

Limiting hay intake

Feed yards and backgrounding operations have taken advantage of improved efficiencies associated with limit feeding growing cattle for many years. This strategy could be used to substantially reduce hay use in cow/calf operations as well. By limiting forage intake, forage digestibility should increase and waste should go down. Minnesota and Illinois researchers limited the amount of time cows had access to hay. When cows were allowed access to hay for six hours, hay intake was reduced by an average of 22% over three experiments. Hay waste was reduced with restricted access in two of the three experiments and cow weight gain declined with restricted access in all three experiments. Cows with restricted access gained weight in all three of the experiments, even though they did not gain as much as cows with ad libitum access. This suggests that initial cow body condition and hay quality may be important factors in successful implementation of this strategy. For example, if cows are in poor body condition initially, or if hay quality is extremely low, cow performance, newborn calf health and reproductive efficiency could be compromised.

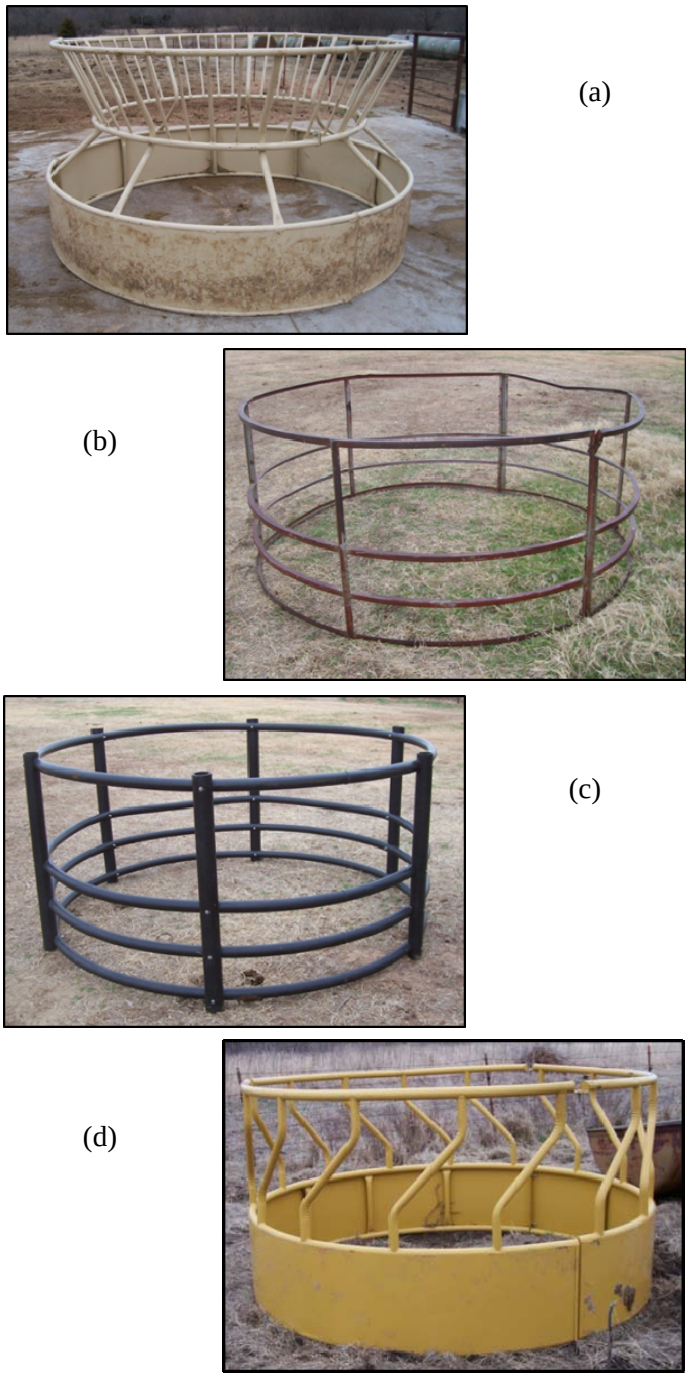
Estimating ad libitum intake and determining the degree of restriction below ad libitum intake are critical factors in using the limit feeding strategy. The National Research Council publishes equations to estimate forage intake and these equations are incorporated into many cow/calf nutrition evaluation software programs. For example, OSU Cowculator uses cow size, stage of production, milk yield and forage quality to estimate dry matter intake. Cowculator (and many other nutrition evaluation programs) can also be used to estimate performance of cows with varying degrees of hay restriction. Cowculator is available at beefextension.com. Limit feeding is not recommended for first calf heifers or thin, older cows.

Using hay feeders designed to limit hay waste

Our group at Oklahoma State recently studied the effects of hay feeder design on hay waste. Two feeders with open bottoms and two feeders with sheeted bottoms were evaluated (Figure 1). The open bottom feeders wasted an average of 21% of the original bale weight. These two feeders are light weight, convenient to use and inexpensive. Consequently, they are the most popular feeder style being used in the state of Oklahoma. The sheeted (solid) bottom feeder reduced hay waste to 13%. However, a modified cone feeder with a sheeted bottom reduced hay waste to only 5%. The feeders with sheeted bottoms are both heavier and more expensive than the open bottom feeders. Nevertheless, assuming hay valued at only $120 per ton and a 120-day feeding period, the difference in the value of one feeding season's hay waste between the open

Drought Feeding Considerations for Fall and Winter 2012 (cont.) *y*

bottom steel ring feeder and the modified cone feeder is $468.72. Few cow/calf operations will be able to absorb the cost of 21% hay waste when hay is extremely valuable.



(a)

(b)

(c)

(d)

Figure 1. Round bale feeder types: (a) modified cone feeder with sheeted bottom; (b) conventional open bottom steel ring feeder (c) polyethylene pipe open bottom ring feeder (d) sheeted bottom steel ring feeder.

Using an Ionophore

The use of an ionophore for grazing cattle and cattle consuming hay can increase the energy value of a forage diet and thus further reduce the need for hay. Older research has shown that Rumensin and Bovatec improves weight gain of growing cattle. Rumensin is approved for the use in mature beef cows. Older research showed that Rumensin reduced hay intake by around 10% while still producing about the same amount of weight gain (Turner et al., 1980; Clanton et al., 1981). In a recent study in our shop at OSU, cows fed 200 mg of Rumensin gained an additional 0.5 per head per day and nearly one half a body condition score unit more during a 58 day study. Importantly in this project, the forage digestibility was improved dramatically, resulting in the improved cow performance. One could look at the addition of Rumensin in the supplement as having increased the net energy value of this low quality hay diet by about 15%. In other words, less of the same diet (hay) would need to be fed to get the same performance. In our region, the cost of Rumensin is about $0.02 per cow per day. I don't know any other way to get that much improvement in forage utilization at such a low cost. There is a reason why the cattle feeding industry has been using this feed technology so extensively for so long, and a substantial improvement in feed efficiency is that reason. The same technology and benefits are available to the cow/calf industry, although it is highly underutilized.

Research is not available evaluating the potential hay savings when two or more of these technologies are combined. Nevertheless, it is very possible that hay use could be reduced by 30 to 40% when two or all three of these strategies are implemented.

Clanton, D.C., M.E. England, and J.C. Parrott III. 1981. Effect of Monensin on efficiency of production in beef cows. J ANIM SCI 53:873-880.

Jaderborg, J. P., G. I. Crawford, and A. DiCostanzo. 2011. Access time to hay feeder by gestating beef cows affects dry matter intake and hay waste. 2011 University of Minnesota Beef Report Publication BR-1103. Available: http://www.ansci.umn.edu/beef/2010-11%20MN%20BEEF/files/research_reports/BR1103-Jaderborg.pdf.

Miller, A. J., D. B. Faulkner, T. C. Cunningham, and J. M. Dahlquist. 2007. Restricting time of access to large round bales of hay affects hay waste and cow performance. Prof. Anim. Sci. 23:366-372.

Turner, H.A., D.C. Young, R.J. Raleigh, and D. ZoBell. 1980. Effect of various levels of Monensin on efficiency and production of beef cows. J ANIM SCI 50:385-390.

Oklahoma Agricultural Land Values Continue to Experience Gains

Roger Sahs, Extension Specialist, Oklahoma State University

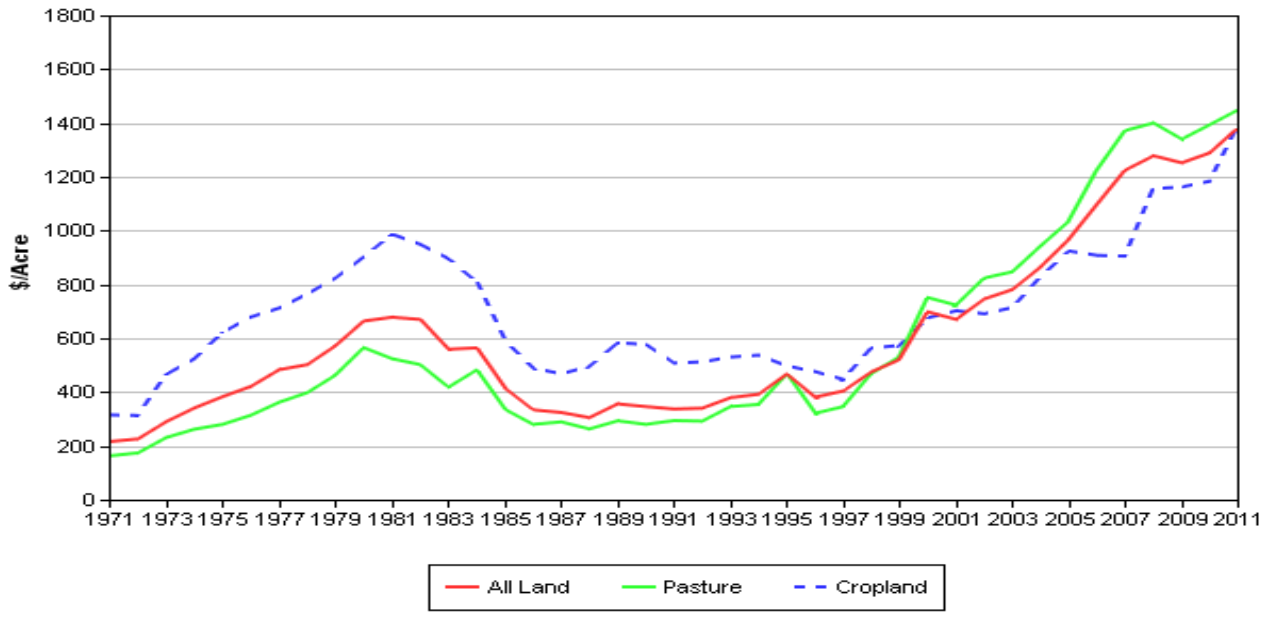
Oklahoma has nearly 35 million acres of land on 85,500 farms and ranches. In 2011, the estimated market value of this farm real estate endowment was $46.1 billion with the majority of the land in private ownership. Recent market dynamics of agricultural land transfers continues to attract considerable attention by active farm operators and non-farm interests.

A perspective of Oklahoma land value trends and patterns can be found at: http://agecon.okstate.edu/oklandvalues/ State-wide statistics, regional comparisons, and county summaries are presented in chart and tabular form (see chart example below).

Data is based on contributions from Farm Credit Services and summaries focuses on tracts larger than 40 acres valued at less than $3,000/acre. Average land values for agricultural real estate increased 7.3% in 2011, the latest year data was available for this study. A survey by the Federal Reserve Bank of Kansas City also found the price of farmland in Oklahoma grew modestly last year. Intensifying drought conditions curtailed income prospects and have limited land value gains. Fortunately, many crop producers carry crop insurance and historically high crop prices also tempered revenue losses. Conversely, for the livestock sector of the state's economy, the drought conditions were much more problematic given water availability concerns, high feed input costs, and damaged forage stands. Even if Mother Nature provides a return to more "normal" conditions, recovery will be a multi-year endeavor.

When looking ahead, it is reasonable to expect a level of anxiety over future anticipated earnings and asset appreciation regarding current land markets. In the short term, Oklahoma's agricultural land values should at least hold steady especially given low interest rates and the fact that recent land markets have been characterized by buyers (active farmers and non-farm investors) who are financially strong. In addition, crop insurance and oil/gas/wind lease money have helped some producers with cash flow. However, if drought conditions do not improve or if recessionary fears crop up again on the national scene, robust bidding by buyers will be a thing of the past. Only time will tell. The one thing to remember about agricultural land as well as any income-producing asset is this: sustainable value must ultimately rest with the true earnings potential—not on speculative capital asset appreciation that often occurs during periods of strong market activity.

Oklahoma Agricultural Land Values, Annual Average
Tracts > 40 Acres and <=$3,000 per Acre



Reference: Jason Henderson and Maria Akers, "Farm Sales Rise with Land Values", Survey of Tenth District Agricultural Credit Conditions, Federal Reserve Bank of Kansas City, 2011, http://www.kansascityfed.org/publicat/research/indicatorsdata/agcredit/AGCR4Q11.pdf

Hay and Pasture Insurance

JJ Jones, SE District Area Ag Economist

The Risk Management Agency (RMA), an agency within USDA, has an insurance product designed to help producers manage their risk of pasture and hay loss due to drought. This product is called the Rainfall Index.

How the Rainfall Index Works

The Rainfall Index uses the National Oceanic and Atmospheric Administration Climate Prediction Center (NOAA CPC) data for a series of grids across the U.S. Each grid is roughly 5 square miles and is not based on county lines or township boundaries. Producers must first determine which grid their pasture and hay acreage is in. RMA has a grid locator and decision tool on their website located at www.rma.usda.gov/ policies/pasturerangeforage. This decision tool allows producers to enter pasture and hay acreage information and see what the insurance would have cost and if any indemnity would have been paid for any years in the past. A screenshot of the decision tool is shown below.

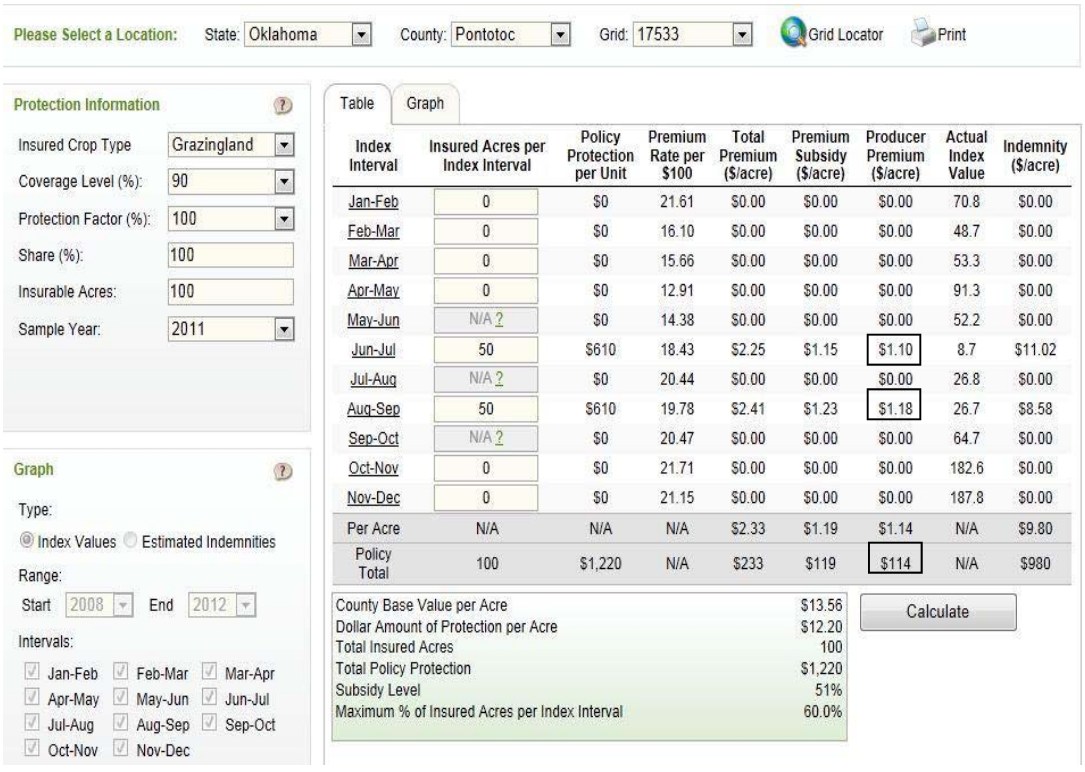
Once the grid is determined producers can then choose an index interval. An index interval is a two month time period during the production year. An example of an index interval is January-February or March-April. A producer can choose to insure in all six index intervals, but must choose at least two intervals to insure. No two intervals can have the same month. These intervals need to be the time of the year a producer expects to have and/or use the grass produced on their acreage.

After choosing the index intervals, a producer must pick a trigger index value. This value will be between 70 and 90. The higher the index trigger value, the more the protection against a drought and the higher the premium. If the index value falls below the chosen index trigger value, the producer will be owed an indemnity.

The next choice is the value of coverage. Each grid has a predetermined value for pasture and hay acreage. If a producer feels that value is too low or high, they can choose to increase or decrease that value. This is done by picking a production level. A producer can pick a level between 60% and 150% predetermined value. Choosing a higher production level will increase the premium while choosing a lower production level will decrease the premium.

A producer then determines the amount of insurable acreage and then divides that acreage into the selected index intervals. No one index interval can have more than 60% of the total insurable acres.

The screenshot shows an example of what a producer in grid # 17533 in Pontotoc County who insured 100 acres (50 acres in June-July and 50 acres in August-September) would have paid in 5 premiums and received in indemnity payments. In this example, the producer chose to insure the acreage at the 90% level with a protection factor of 100%. The premium for the June-July index interval would be $1.10/(shown in the highlighted box) acre or $55. The indemnity the producer would have received is $11.02/acre or $551. The premium for the August-September index interval would have been $1.18/acre or $59 (shown in the highlighted box). The indemnity would have been $8.58/ acre or $429. Overall the producer would have paid $114 in premium and received $980 in an indemnity (shown in the highlighted box).



Please Select a Location: State: Oklahoma County: Pontotoc Grid: 17533 Grid Locator Print

Protection Information

Insured Crop Type: Grazingland
Coverage Level (%): 90
Protection Factor (%): 100
Share (%): 100
Insurable Acres: 100
Sample Year: 2011

Graph

Type: Index Values / Estimated Indemnities
Range: Start 2008 End 2012
Intervals: Jan-Feb, Feb-Mar, Mar-Apr, Apr-May, May-Jun, Jun-Jul, Jul-Aug, Aug-Sep, Sep-Oct, Oct-Nov, Nov-Dec

Table | Graph

Index Interval	Insured Acres per Index Interval	Policy Protection per Unit	Premium Rate per $100	Total Premium ($/acre)	Premium Subsidy ($/acre)	Producer Premium ($/acre)	Actual Index Value	Indemnity ($/acre)
Jan-Feb	0	$0	21.61	$0.00	$0.00	$0.00	70.8	$0.00
Feb-Mar	0	$0	16.10	$0.00	$0.00	$0.00	48.7	$0.00
Mar-Apr	0	$0	15.66	$0.00	$0.00	$0.00	53.3	$0.00
Apr-May	0	$0	12.91	$0.00	$0.00	$0.00	91.3	$0.00
May-Jun	N/A ?	$0	14.38	$0.00	$0.00	$0.00	52.2	$0.00
Jun-Jul	50	$610	18.43	$2.25	$1.15	$1.10	8.7	$11.02
Jul-Aug	N/A ?	$0	20.44	$0.00	$0.00	$0.00	26.8	$0.00
Aug-Sep	50	$610	19.78	$2.41	$1.23	$1.18	26.7	$8.58
Sep-Oct	N/A ?	$0	20.47	$0.00	$0.00	$0.00	64.7	$0.00
Oct-Nov	0	$0	21.71	$0.00	$0.00	$0.00	182.6	$0.00
Nov-Dec	0	$0	21.15	$0.00	$0.00	$0.00	187.8	$0.00
Per Acre	N/A	N/A	N/A	$2.33	$1.19	$1.14	N/A	$9.80
Policy Total	100	$1,220	N/A	$233	$119	$114	N/A	$980

County Base Value per Acre	$13.56
Dollar Amount of Protection per Acre	$12.20
Total Insured Acres	100
Total Policy Protection	$1,220
Subsidy Level	51%
Maximum % of Insured Acres per Index Interval	60.0%

Calculate

Hay and Pasture Insurance (cont.)

How to purchase Rainfall Index Insurance

Producers wanting to use Rainfall Index Insurance must purchase the policies through a licensed insurance agent. RMA has an agent/agency locator section of their website located at www.rma.usda.gov/tools/agent.html. Producers must sign up for this insurance and provide an acreage report by November 15, 2012 for the 2013 crop year. Payments of insurance premiums are due by September 1, 2013. Producers wanting more information about Rainfall Index insurance should contact their crop insurance company or the OSU Extension office for more information.

OQBN Vac-45 Adds Value to Beef Cattle

Chris Richards, Animal Science, Oklahoma State University

The Oklahoma Quality Beef Network (OQBN) is a program, which began in 2001, and is a joint effort by Oklahoma Cooperative Extension Service and the Oklahoma Cattlemen's Association. It provides producers and others in the beef industry education and tools to improve access to value-added programs. OQBN offers participation in value-added markets such as health management verification, age verification, source verification, production system verification, and genetic verification.

The OQBN Vac-45 is an example of a health management verification option for beef producers to participate in a value-added market. The OQBN Vac-45 is a program that benefits buyers and sellers in several ways. In addition to healthier, heavier calves when sold, sellers may earn higher prices per/cwt. Research has found buyers paid $3-6/cwt more for preconditioned calves in recognition of buying healthier, higher-performing calves for a stocker or feedlot program. In 2011, OQBN participants realized $6.54/cwt premium over cattle that had no weaning or health history.

There are several benefits to participate in the OQBN Vac-45 program. Benefits include reduced cattle stress and shrink, improved immune system, increased sale weight of cattle, increased market demands, brand-neutral (you and your veterinarian select the products to be used and for timing of vaccinations), and OQBN can be dual certified in other health management verification programs.

The following is a list of several OQBN sales scheduled this fall across the state. For a producer to take advantage of these value-added opportunities, the cattle must be enrolled in the OQBN Vac-45 program, follow one of three health protocols, weaned by the deadline, and third party verified by extension personnel.

For additional information or questions about the Oklahoma Quality Beef Network, contact your local OSU Extension Office or Chris Richards, Interim OQBN Coordinator at 405-744-6060 or at chris.richards@okstate.edu. Additional information may also be found at www.BeefExtension.com or www.oqbn.okstate.edu

Location	Sale Date	Wean Date
OKC West	November 7, 2012	September 23, 2012
Durant Stockyards	November 8, 2012	September 24, 2012
McAlester Stockyards	November 13, 2012	September 29, 2012
Blackwell Livestock	November 17, 2012	October 3, 2012
Pawnee Livestock	December 1, 2012	October 17, 2012
Tulsa Stockyards	December 3, 2012	October 19, 2012
OKC West	December 5, 2012	October 21, 2012
Durant Stockyards	January 10, 2012	November 26, 2012
McAlester Stockyards	February 26, 2013	January 12, 2012
McAlester Stockyards	April 2, 2013	February 17, 2012
McAlester Stockyards	June 4, 2012	April 20, 2012

The OSU Agricultural Economics Department is hosting the 2012 Rural Economic Outlook Conference at the ConocoPhillips OSU Alumni Center in Stillwater on November 8 - 9, 2012. The conference will focus on trends and expectations affecting the agriculture and rural economy. The registration cost is $50.00 prior to November 1 and late $75.00. For more information, see the website http://agecon.okstate.edu/extension/ruralconference.asp or contact the Agricultural Economics Department at 405-744-9836.

Agenda

November 8, 2012—OSU Atherton Hotel

4:00 p.m. *Registration*
5:00 p.m. *Reception—catered light hors d'oeuvres*

November 9, 2012—ConocoPhillips OSU Alumni Center—OSU Campus

8:30 a.m. *Registration and Welcome*
8:40 a.m. *Globalization: Implications for U.S. and Oklahoma Agriculture Dr. Dick Crowder*
10:00 a.m. *Break*
10:15 a.m. *Farm Bill Update by Bart Fischer Chief Economist, U.S. House of Representatives Ag Committee, and Dr. Jody Campiche, OSU*
11:15 a.m. *Agriculture and the Environment with Larry Elworth, EPA and Terry Detrick, American Farmers and Ranchers and moderated by Larry Sanders, OSU*
12:15 p.m. *Lunch*
1:15 p.m. *Outlook panel with Shannon Ferrell, Damona Doye, Kim Anderson and Derrell Peel, OSU*
2:30 p.m. *Break*
2:45 p.m. *The Fed and the Economy in the U.S. and Oklahoma , Chad Wilkerson, Kansas City Federal Reserve Bank, Oklahoma City Branch*

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