Master Cattleman Quarterly

Oklahoma State University

Vesicular Stomatitis

Barry Whitworth, DVM, Area Food Animal Quality and Health, Specialist for Eastern Oklahoma

One case of Vesicular Stomatitis Virus (VSV) was diagnosed in Tillman county, Oklahoma on July 30, 2019. The premise has since been released from quarantine. Oklahoma has not seen a case of VSV since the 1990s. Oklahoma joins Texas, New Mexico, Colorado, Wyoming, Nebraska and Utah with premises affected by the virus. The current United States Department of Agriculture VSV situation report (August 23, 2019) states that 851 premises (353 confirmed and 498 suspected) are affected. Eight hundred forty-eight of the premises have equine species affected and three premises with affected cattle. The chances are more affected animals will be diagnosed in the future. The reason for this article is to alert the public about the disease and the restrictions placed on livestock from infected counties.

Vesicular Stomatitis Virus is a viral disease that affects primarily horses and cattle. Pigs, sheep, goats, llamas, alpacas, and deer can also be infected, and on rare occasions humans can be infected. The disease normally occurs in the western and southwestern United States during the warmer months of the year and tends to be seen along waterways. Transmission occurs by direct contact with infected animals or by blood feeding insects.

Most animals do not die from this disease, but the economic losses can be significant in the lack of milk production and weight loss. The biggest concern with VSV is distinguishing it from foot and mouth disease and swine vesicular disease, both foreign animal disease with similar clinical signs. The only way to distinguish these diseases is through laboratory tests. Because of this concern, VSV is a reportable disease.

Production losses are not the only economic consequence of VSV. There are also economic losses due to restrictions since VSV is an internationally reportable disease in cattle, swine, sheep, goats, and deer. During an outbreak some countries may elect to restrict imports of animals or products from the United States. Also, states may impose regulations on interstate travel of livestock from infected states or counties where VSV has been diagnosed. Farms or ranches that are infected with VSV are quarantined for 14 days from the onset of lesions in the last affected animal on the premises. This sometimes results in lengthy quarantines.

The disease characteristics include fever at the onset. The most commonly recognized sign is excessive salivation or drooling. If the mouth is examined in early stages of the disease, it will reveal blister like lesions known as vesicles. Normally the vesicles are not seen because they have ruptured before the animal is checked. It is more likely to find ulcers or erosions of the inner surfaces of the lips, tongue, dental pad, and gums. Sometimes crusty lesions can also be seen on lips, nostrils, teats, prepuce, vulva, and coronary bands. Due to pain and discomfort, animals are reluctant to eat and drink. Animals may be lame due to the feet lesions. The disease normally resolves in 10 to 14 days.

The reason the disease sporadically occurs in some years is not known. Insects, animal movement, and mechanical transmission probably play a part in the spread of the disease. Once in the herd, the disease moves from animal to animal through contact with the saliva or ruptured vesicles of an infected animal.

There is no specific treatment for the disease. Infected animals are given supportive care such as soft food, rest, and water. Veterinarians will attempt to control pain and treat any secondary bacterial infections.

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MASTER CATTLEMAN

Vesicular Stomatitis, cont.

Since no vaccine is available, prevention begins with a good biosecurity plan. Producers should isolate any newly purchased animals for at least 30 days before introducing them to the herd. Any animals that appear ill should be separated from the herd and placed in quarantine. Also, producers should control insects.

Diagnosis of VSV is by blood test and timely communication with your local veterinarian is critical. If you or your veterinarian suspects VSV, contact the State Veterinarian's office at 405-522-6141.

Calculating Potential Returns to Dual-Purpose Wheat

Roger Sahs, Extension Specialist

Many areas of the major wheat regions of Oklahoma have received beneficial rains over the past several weeks. If favorable soil moisture and soil temperatures continue to hold promise, early planting of wheat is likely to begin in the next few weeks and excellent grazing conditions could be in the works this fall. Producers are making plans for the next crop and trying to figure whether dual-purpose wheat offers the financial rewards necessary to offset the added risk of running stockers through the winter grazing period. Lower prices in the wheat and the uncertain stocker markets have pressured profit margins, stressing the importance of managing costs and production risk. How can a producer calculate the profit potential from wheat grain and pasture?

OSU Extension Current Report CR-212 "Should I Buy (or Retain) Stockers to Graze Wheat Pasture" has been recently updated and outlines the major decision parameters associated with wheat and stocker enterprises. The publication is available from your OSU county Extension office or online at osufacts.okstate.edu.

The economic consequences of utilizing additional wheat forage primarily depend on the following considerations as detailed in the publication:

1. The costs of producing forage to be grazed. The costs of establishing dual-purpose wheat are frequently higher than grain-only systems. Heavier seeding rates for dual-purpose wheat are recommended and additional nitrogen may be needed to maintain grain yields if grazing is allowed.

2. The returns to livestock utilizing small grain forage or the potential income from grazing leases. Livestock returns depend on factors such as purchase price, supplemental feed costs and other production inputs, the amount of forage produced before winter, the efficiency of livestock converting forage to weight gain, and finally, the sale price of cattle. Wheat producers who do not have the time and/or capital associated with livestock ownership may consider lease grazing rights to others for a fixed rental rate per acre as an option.

3. Forage yields since the amount produced is influenced greatly by the planting date, weather, variety selection, and fertility. The sample wheat and stocker budgets illustrated in CR-212 combined with forage production data and stocking rate considerations provide the necessary information to calculate the wheat and stocker return worksheet shown in Table 1. In this example, positive returns to the stocker enterprise partially offset the negative returns from the wheat enterprise. These returns highlight the importance of managing production costs and locking in better prices when marketing opportunities permit.

Even with good production and financial records to project likely costs and yields, the uncertainty and volatility in the commodity markets going into this fall increase the risks with dual-purpose wheat. Since the results shown in Table 1 are based on a strict set of assumption and conditions, producers are encouraged to tailor the worksheet with their own wheat and stocker budgets. Sample crop and livestock budgets are available to view and download at the OSU Enterprise Budget website at www.agecon.okstate.edu/budgets. The cost and return summaries allow quick and easy changes.

Additional information on OSU enterprise budgets is available through your local county extension office, at the budget website previously mentioned, or by calling Roger Sahs at 405-744-7075.

Calculating Potential Returns to Dual-Purpose Wheat (cont.)

Dual Purpose Wheat Returns to Land, Overhead, Risk and Management
(Without Government Payments)

	Example	Your Value
Total Receipts	$181.07	_____
- Total Operating Costs (custom harvest adjusted)	-179.43	_____
- Total Fixed Costs	-19.57	_____
Wheat Returns per Acre	$-17.93	_____ (A)

Stocker Returns to Land, Overhead, Risk and Management

Total Receipts	$951.08	_____
- Total Operating Costs (w/additional fertilizer/seed)	-927.08	_____
- Total Fixed Costs	-13.23	_____
Stocker Returns per Head	$10.77	_____ (B)

Stocking Rate (Head per Acre):

Head/Acre = Lbs DM Produced per Acre
(Lbs DM per Lb of Gain) x (Lbs of Gain per Head)

= 1,800 _____
10 x 240

= .75 _____ (C)

Stocker Returns per Acre = Stocker Returns per Head (B) * Head/Acre (C)

= $-10.77 x .75 _____

= $ 8.08 _____ (D)

Total Returns (S/A to Land, Overhead Risk, and Management

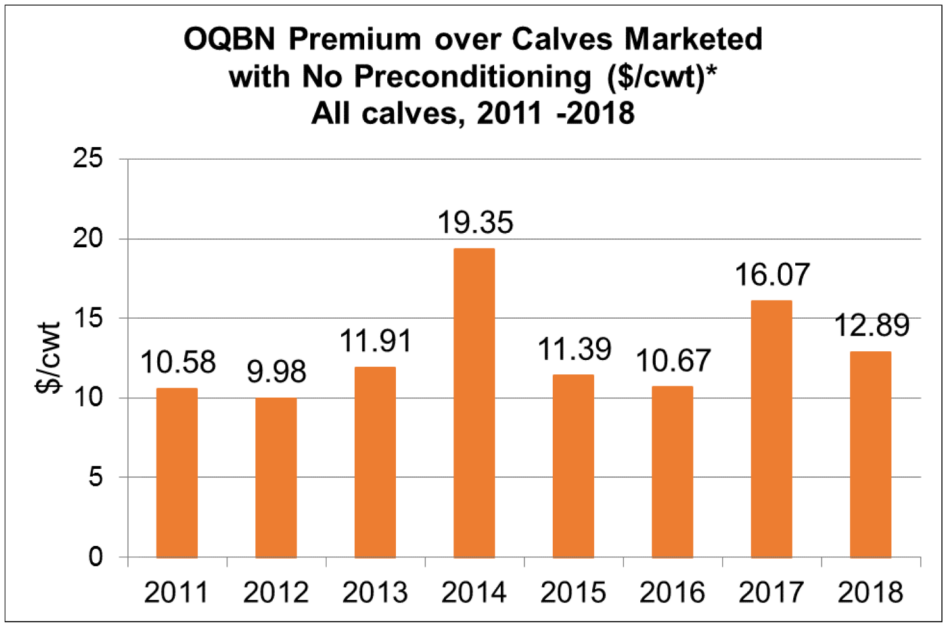
Wheat Returns (A)	$-17.93	_____
+Stocker Returns (D)	+8.08	_____
Total Returns	$-9.85	_____

Use Preconditioning to Boost Returns on the 2019 Calf Crop

Dana Zook, NW Area Livestock Specialist

In Oklahoma, fall is weaning time for producers who own spring calving herds. Markets look favorable for the coming season but there are programs that have historically offered a premium for calves even in times of high prices. There are many preconditioning options available for producers, however, a program with a proven track record is the Oklahoma Beef Quality Network (OQBN).

OQBN and other preconditioning programs have been designed to aid producers in making preconditioning decisions and capturing value of preconditioned calves at market. One way this is done is through the OQBN Vac-45 verification program. Cattle meeting the management and vaccination requirements are verified by Oklahoma Cooperative Extension personnel and can be marketed as OQBN Vac-45 cattle. Once verified, producers have the option but are not obligated to market cattle in a certified OQBN sale.



The OQBN Vac-45 program and other preconditioning programs benefit both buyers and sellers in several ways, including reduced shrink, stronger immunity, and improved weight gain during the weaning and preconditioning period. In 2018, OQBN participants realized a $12.89/cwt premium over cattle that had no weaning or health history (see table below). Buyers offset purchase prices by having very low death loss and excellent feed conversion right off the bat.

Some producers may be apprehensive about preconditioning, however, the use of a proper vaccination protocol and the development of a basic management plan can provide healthy preconditioned calves that are more valuable at sale time.

When the decision is made to precondition cattle, producers should evaluate their feed options. What feed or grain is on hand? What is the nutritional value of the hay source? By determining feed resources and their feeding value, a basic preconditioning ration can be easily formulated by a nutritionist or OSU extension educator. According to these factors, producers should then set a target weight goal for the calves. Producers must be cautious as to not over-condition cattle that are destined for feeding environments with a low plane of nutrition such as stockpiled dry winter range or hay. In these situations, high energy diets during preconditioning will hinder future performance due to the extreme difference in nutrition.

A minimum 45-day preconditioning period is required by OQBN, however some producers may feel that 60 or 75 days works better for their operation. Rations can be adjusted nutritionally to allow for increased days on feed in turn avoiding over-conditioning situations. Finally, make sure that the preconditioning program is set in a way that requires minimal labor and equipment input. Preconditioning is an investment in risk management, however, the intention is not to accrue costs that offset premiums at sale time.

Whether headed to the feed yard or staying on the operation for winter grazing, preconditioning management paired with a full course of preconditioning vaccines will provide the producer with risk management needed to boost returns on the 2019 fall calf crop.

More information about OQBN protocols, sale dates and weaning date can be found at oqbn.okstate.edu. (sale and weaning dates are also listed on page 5). Contact your local OSU extension educator about the OQBN program or questions about creating a preconditioning program for calves this fall.

Why is 45 day weaning important to feeder calf health??

Glenn Selk, Oklahoma State University Emeritus Extension Animal Scientist

The "Value-Added" calf sales will begin in September and continue in the fall months. Therefore some of the required weaning dates have already past and others are only a few days away. Most of the "Value-Added" calf sales require that the calves are weaned at least 45 days prior to sale date. Some cow calf producers may wonder why the post-weaning period needs to be so lengthy.

Data from Iowa from over a nine year period in a couple of their feedout tests compared the health status of calves weaned less than 30 days to calves weaned longer than 30 days. Data from over 2000 calves were summarized. Calves that had been sent to a feedlot at a time less than 30 days had a higher incidence of bovine respiratory disease (28%) compared to calves weaned longer than 30 days (13%). The percentage of calves that required 3 or more treatments also was significantly different (6% versus 1%) in favor of calves that had been weaned more than 30 days. In fact the calves weaned less than 30 days were not different in health attributes than calves that were weaned on the way to the feedlot.

A summary of this lengthy study can be found on line at http://www.extension.iastate.edu/Pages/ansci/beefreports/asl-1648.pdf. Vac-45 calves apparently have a real advantage in terms of health compared to calves weaned for less than a month or those weaned on the way to the livestock market for sale date. Certainly part of the "value" in value-added calves can be attributed to properly applied vaccinations. However, there is little doubt that a portion of the improved health is due to the length of time between weaning and the movement of calves to the next owner.

Information about the Oklahoma Quality Beef Network (OQBN) value added calf sales can be found on the OQBN website. The weaning dates are coming up very soon for the October sales. Upcoming sale dates and appropriate weaning dates are available on the website. Therefore producers with calves that meet those guidelines should make the appropriate contacts soon. The OQBN website is http://oqbn.okstate.edu .

Upcoming OQBN Sales 2019-2020

Location	Sale Date	Wean by date
*OKC-West	9/17/2019 - 01/14/2020 (Weekly sale on Tuesdays @ noon)	8/3/2019
Cherokee	11/6/2019	9/22/2019
Woodward	11/7/2019	9/23/2019
McAlester	11/12/2019	9/28/2019
Payne	11/13/2019	9/29/2019
Enid	11/21/2019	10/7/2019
Blackwell	11/23/2019	10/9/2019
Fort Smith (Moffett, OK)	11/30/2019	10/16/2019
McAlester	2/18/2020	1/4/2020
McAlester	4/21/2020	3/7/2020
McAlester	6/9/2020	4/25/2020

**OQBN sales at OKC West will be held every Tuesday at noon starting September 17, 2019 and continue through January 14, 2020. OQBN calves should be delivered by noon the day prior to sale date. Program certification will still apply*

Cow-calf marketing and management considerations for fall 2019

Derrell S. Peel, Oklahoma State University Extension Livestock Marketing Specialist

Cattle markets continue to experience significant volatility and uncertainty due to numerous dynamic market factors and continued global economic unrest. The U.S. economy looks increasing shaky with recessionary threats building. Widespread uncertainty has put most markets, including agricultural markets, on the defensive.

Cow-calf producers are anticipating fall calf marketings and watching a number of factors that are adding pressure and volatility to feeder cattle markets. It is good to start by reminding yourself about the normal seasonal price patterns for calves. On average calf prices in Oklahoma decrease four to six percent from August to the fall low in October. Feeders over 600 pounds typically decrease six to seven percent from August to October.

While seasonality is a great starting point for price forecasts, there are a number of factors that may cause deviations from the typical seasonal patterns. The 2019 calf crop was slightly higher year over year meaning that a sizable calf run is expected this fall. Cattle markets were rattled by the Kansas packing plant fire in August which resulted in lower prices and meaning that there could be a smaller than usual seasonal price decrease by October. Most of the impacts of the fire, especially on feeder cattle markets are expected to be over by the fall calf run. Feeder cattle markets have been pressured and more volatile all summer because of the threat of higher feed costs. The uncertainty related to the corn crop continues and feeder markets remain on the defensive. On the positive side, wheat pasture prospects look quite favorable and stocker demand has the potential to hold calf prices stable or even a tick higher in September and mute the October supply pressure and corresponding seasonal low prices. The set of positive and negative factors that will influence calf prices this fall remain very dynamic and will bear watching in the coming weeks.

In general, forage conditions were very good this year and good forage quantity and quality this fall may provide more management alternatives for cow-calf producers. First and foremost, good forage conditions provide an opportunity to manage winter cow costs by extending fall grazing. This is particularly important in some cases where wet, cool summer weather resulted in some problems with hay quantity and/or quality. Additionally, ample forage may provide opportunities to retain claves for additional weight in a stocker/backgrounding program. It is always a good idea to evaluate retained ownership opportunities in dynamic market environments. Corn prices this fall will influence the potential for added feeder weight gain beyond weaning.

Finally, if you don't already do it, consider preconditioning your calves for added value at marketing. The Oklahoma Quality Beef Network (OQBN) and other certified preconditioning programs provide an increasingly reliable way to capture additional value for calves. You will need to start soon to have time for weaning prior to sales later in the fall. Check out the OQBN website at oqbn.okstate.edu for program details and a schedule of upcoming sales.

Farm Management Resources on Your Smartphone

Brent Ladd, Assistant Extension Specialist, *Kellie Curry Raper, Ag Economics Livestock Marketing Specialist*

The e-Farm Management website has resources for producers to learn about financial management topics along with production, marketing, and risk management topics. This site includes videos, publications, and tools for farmers and ranchers to strengthen their farm management skills.

One available resource is the Body Condition Scoring video. In this video, viewers learn why body condition scoring (BCS) is important in herd management and the basics of body condition scoring cattle. The video includes a practice set as well.

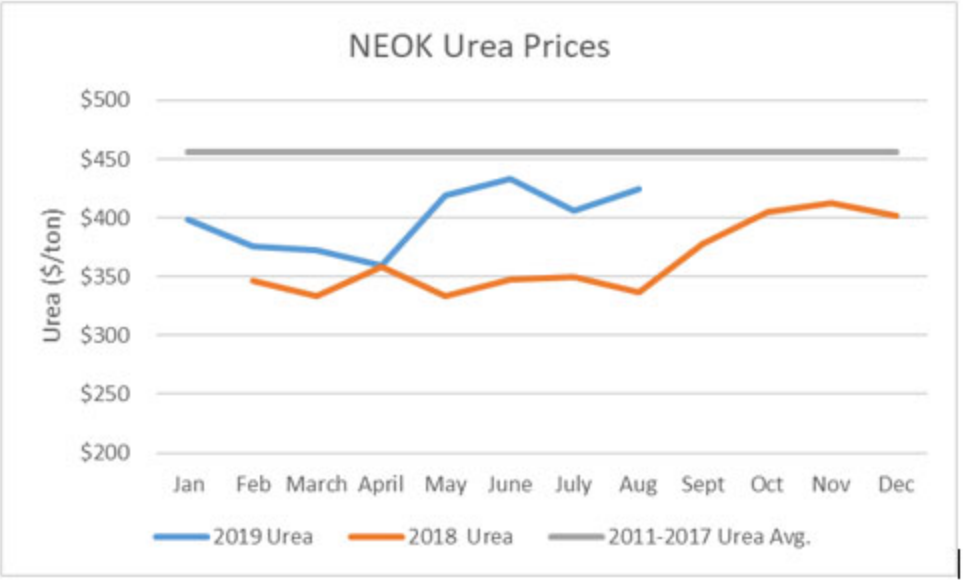
To view this video and find additional information on cow/calf production basics, visit: http://agecon.okstate.edu/efarmmanagement/cowcalf.asp.

More information on this and other farm management topics may be found: 1) by contacting your nearest Extension Educator 2) on the e-farm management website (http://agecon.okstate.edu/efarmmanagement/index.asp) or 3) on the OSU Ag Econ YouTube Channel (https://www.youtube.com/user/OkStateAgEcon).

The Cost of Forage Production—Urea

Scott Clawson, Area Ag Economics Specialist

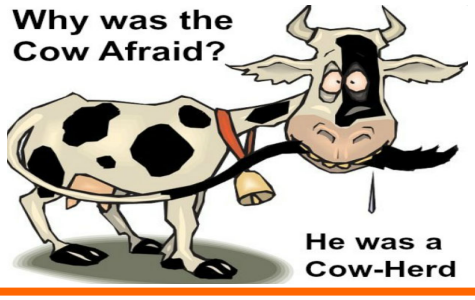
As we endure what looks to be a tumultuous period for cow calf producers with volatile markets and weather, there is a management tool that has been researched and demonstrated in northeast Oklahoma to reduce our annual cow cost. This practice is stockpiling fall forage. In short, this is the practice of clipping or grazing a pasture, removing the livestock, fertilizing, and then reintroducing the livestock after a killing frost. This process is mostly an investment in labor or time to complete. Still, the price of urea and the investment in fertility can be considered a barrier.



The retail price of urea is tracked monthly by taking a multiple dealer average throughout northeast Oklahoma. Since 2011, we have recorded a high price of $817/ton in June of 2012. The lowest recorded average price was in August of 2017 at $286/ton. The average price from 2011 to current is $455/ton. Our agronomy research has established some rules of thumb. Fifty pounds of actual nitrogen(N) will yield approximately one extra ton of Bermuda per acre. It will take 60 pounds of urea to grow the equivalent amount of fescue. Remember that a pound of urea is not a pound of actual N. Urea is 46% N. At today's market price of $400/ton, each pound of actual N costs roughly $.43/pound. The N investment per acre of stockpiled forage this fall would be roughly $22 and $26 for Bermuda and fescue respectively. Our comparison point would be hay. If hay is selling for $70/ton, we can make significant savings. Additionally, stockpiled Bermuda/fescue in many cases will not require additional supplementation for dry cows to maintain body condition.

OSU Fact Sheet AGEC-261 highlights the supply and demand issues that drive the urea market. The natural gas marketplace is commonly linked to urea prices. This is due to most of our nitrogen-based fertilizers being byproducts or a part of the refining of natural gas. However, these are not the only price determinants of urea. One of these determinants is the reliance on the global market. The United States is now an importer of urea. Importing the good means reliance on many countries to source our demand. Tariffs and exchange rates both factor in. Additionally, transportation adds another layer of complexity, cost, and variability in determining the retail urea price. All if this in addition to the supply and demand for use in crops and pastures.

We have been and are still enjoying fertilizer prices that are lower than where they were not long ago. At this price point, stockpiling forage is an efficient and effective way to reduce our dependency on hay and minimize what it costs to run that cow through the year. For more information on stockpiling forage on your operation, contact your local OSU Extension educator.



Rural Economic Outlook Conference

The 2019 Rural Economic Outlook Conference will be held on Wednesday, October 9, at the ConocoPhillips Alumni Center in Stillwater. An excellent lineup of speakers will focus on rural economy and agriculture.

- Overview of the Rural Economy: Sarah Low, Professor of Regional Economics and Fred V. Heinkel Chair in Agriculture, University of Missouri.
- 2019 Agricultural Policy Highlights, Amy Hagerman, OSU Ag Economics Assistant Professor.
- Migration and Labor Markets: Implications for Rural America: Pia Orrenius, V.P. and Sr. Economist, Federal Reserve Bank of Dallas.

Rapid Fire Outlook Panel:

- Agricultural Finance Topics: Rodney Jones, OSU Ag Economics Professor, Farm Credit Chair.
- Crop Bits and Pieces: Kim Anderson, OSU Ag Economics Professor Emeritus
- Livestock Markets: Derrell Peel, OSU Ag Economics Charles Breedlove Professor.

Registration is $50 before October 2 and $70 at the door. This includes breakfast, lunch and breaks. To register online with a credit card (go to: orangehub.okstate.edu), and choose the Agricultural Economics store. For more information or to register with a check, contact kareta.casey@okstate.edu (405-744-9826).

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