



**BEAVER COUNTY
EXTENSION**

Agriculture

Beaver County Extension Office

ADDRESS

111 West 2nd St.
P.O. Box 339
Beaver, OK 73932

PHONE

580-625-3464

EMAIL

elizabeth.mcbee@okstate.edu
loren.sizelove@okstate.edu
connie.mcminn@okstate.edu

WEBSITE

extension.okstate.edu/county/
beaver/beaver.html

Facebook

Beaver County OSU Extension

IN THIS ISSUE

Page 2

HOUSEPLANTS IN WINTER

Page 3

**More Cattle Grazing Winter
Wheat in Oklahoma**

**Proper Vaccination
Increases Calf Welfare
and Value**

Page 4

**Calendar
Save The Dates and
Information**

Developing a Center for Rural Veterinary Medicine

Rosslyn Biggs, DVM, Oklahoma State Extension Beef Cattle Specialist

Veterinarians are critical to the success of rural communities and rural economies. Veterinarians support food and fiber animal industries, maintain the health of companion animals, identify zoonotic diseases, and play a critical role in disease surveillance to protect US agriculture. As cattlemen know, there is a growing challenge to food supply veterinary medicine. In particular, the number of veterinarians serving rural communities has declined during the last thirty years.

Oklahoma State University is committed to addressing challenges in rural communities including impacts to veterinary medicine and animal agriculture. The percentage of OSU graduates entering food animal or mixed animal practice is routinely higher than the national average. From the Class of 2023 respondents, 25% percent of OSU grads entered large or mixed animal practice while the national average historically fluctuates between 10-15%.

To fully address this multifaceted challenge, OSU CVM intends to create a Center for Rural Veterinary Medicine (CRVM). The CRVM represents a team-based approach to the study of rural veterinary medicine and associated challenges and shortages, and the development and implementation of strategies to address these challenges. The current vision for the program includes a service component in underserved/rural regions, as well as outreach programs to mentor youth in these regions to help prepare them for STEM careers, including veterinary medicine. One CRVM program, the Integrated Beef Cattle Program for Veterinarians, has already started.

The Integrated Beef Cattle Team, comprised of faculty from veterinary medicine, animal science, agricultural leadership, and agricultural economics was established with grant funding from the United States Department of Agriculture. Based on feedback from beef industry stakeholders, the team created a curriculum for a class of 20 Oklahoma veterinarians and 20 OSU veterinary students.

The program intends to enhance the sustainability of veterinary practices serving the Oklahoma beef cattle industry and surrounding region. Topic covered in the curriculum included leadership, communication, mentoring, practice management, welfare, stockmanship, mental health, and production medicine. A heavy emphasis has also been placed on connecting veterinarians, students, and industry leaders. Class III of this program will begin in January 2024.

GARDEN TIPS FOR JANUARY!

- If precipitation has been deficient (1" of snow = ~ 1/10" of water), water lawns, trees, and shrubs, especially broadleaf and narrowleaf evergreens. Double check moisture in protected or raised planters.
- Check on supplies of pesticides. Secure a copy of current recommendations and post them in a convenient place. Dilution and quantity tables are also useful.
- Check that gardening tools and equipment are in good repair—sharpen, paint, and repair mowers, edgers, sprayers, and dusters.

Inspect your irrigation system and replace worn or broken parts. ([HLA-6615](#))

Control overwintering insects on deciduous trees or shrubs with dormant oil sprays applied when the temperature is above 40°F in late fall and winter. Do not use "dormant" oils on evergreens. ([EPP-7306](#))

A product containing glyphosate plus a postemergent broadleaf herbicide can be used on dormant bermudagrass in January or February when temperatures are above 50°F for winter weed control. ([HLA-6421](#))

Houseplants in Winter

David Hillock

During the winter months our attention often turns to plants growing indoors. Like most plants outdoors, many plants indoors also go into a rest stage. This rest stage usually shows up as reduced growth and in some cases the loss of some leaves. This rest stage is a result of the shorter days and reduced light levels inside the home.

During this period plants won't need too much water and little to no fertilizer. When a plant seems to be struggling most people tend to add more water or fertilizer, but this could lead to further problems. Unless your plants are growing under near greenhouse conditions, water only when the top ½ inch of potting soil is dry and avoid adding fertilizer.

Another problem that arises during the winter months is exposure to cold drafts or the dry, blasting air from the heater. Humidity can also be lower. To avoid these problems, locate plants away from doorways or the heater registers. Plants grow best at temperatures between 65°F to 75°F and a humidity of 50 to 60 percent. Temperatures are usually easier to control, but controlling humidity is more challenging. Humidity levels of 50 to 60 percent are higher than what most people like. Control humidity with a humidifier. A transparent polyethylene bag can be draped over plants that are extremely humidity sensitive or are in poor condition.

This is also a good time to see if plants are root-bound too. If they are root-bound, plant them in a pot that is only 1 to 2 inches larger in diameter than the pot in which the plant is currently growing.

Providing Adequate Light for Houseplants – Adequate water and light are the two most crucial requirements for growing plants indoors. Of these, light is usually the limiting factor, especially in rooms where outside windows are small, face the north or not present. Growing under lights relies on the intensity, quality, and quantity of light produced by fluorescent lamps.

Very few plants tolerate dark corners. Most houseplants require the light that would be found within four to eight feet of a bright south window. Some will tolerate a spot very near the window, while others will prefer less light some distance away. Too little light can result in tall, lanky, small-leafed plants. Too much light can cause leafburn on sensitive species like African Violet. Drapes should be left open during the day where houseplants are being grown; however, be careful not to allow the plants' leaves to touch the glass of the window.

Properties of Light Intensity (Brightness) – Plants have different requirements for light intensity. Desert plants, such as cacti, require very high levels of light, whereas most tropical foliage and flowering plants require medium levels of light. Plants are generally segregated into the following categories based on their light requirement and intensity as expressed in foot-candles (ft c). One foot-candle is defined as the light produced by a single candle's flame as measured at one foot.

Sunny or very high (>1000 ft c)

- Areas receiving at least 5 hours of direct sunlight in winter
- Window facing southeast, south, or southwest

Semi-sunny or high (500-1000 ft c)

- Areas receiving 2-5 hours of direct sunlight per day in winter

- Window facing east or west

Semi-shady or medium (150-500 ft c)

- Areas having bright, open light, but little or no direct sunlight

- Obstructed window facing east or west

Shady or low (<150 ft c)

- Areas receiving no direct sunlight, but having enough light to cast a shadow

- Window facing north

If the room is not naturally lit, artificial lights should be used. A 100-watt table lamp can be used about three feet above plants. Specially built fluorescent plant lights or plant flood lamps are available.

Fluorescent lamps are a good source of light for growing plants because they distribute light uniformly across the lamp and over lamp life. Plants can be grown very close to the lamps without heat damage. However, intensity rapidly decreases as distance from the lamp increases. Fluorescent lamps are usually suspended a few inches above the plant leaves. Light emitting diodes (LED) are fourth generation lighting sources and are an emerging technology in horticulture. Fluorescent, incandescent or LED plant lights are satisfactory for growing plants.

Quality (Color) – Plant growth lights produce most of their light in the blue, red, and far-red regions. Blue light provides energy for photosynthesis. Red and far-red light are important for flower initiation. Standard "cool white" fluorescent lamps produce light in the lower visible spectrum, i.e., blue to green to orange, and thus will satisfy the light requirements of many plants. Combining two of the plant growth lamps with two cool white lamps will provide good spectral distribution.

Quantity (Duration) – The intensity of light cast on plants' leaves and the duration are important to the maintenance and growth of those plants.

- Seedlings require 16 hours of light per day.
- Flowering indoor plants require 14-16 hours of light per day.
- Foliage indoor plants require 10-12 hours of light per day.

For more information see our fact sheet HLA-6411 - Houseplant Care.



More Cattle Grazing Winter Wheat in Oklahoma

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

In the final crop progress report of 2023 at the end of November, the Oklahoma wheat crop was rated 53 percent good to excellent with 7 percent poor to very poor. This compares to one year ago when the Oklahoma wheat crop was rated 31 percent good to excellent and 24 percent poor to very poor. Figure 1 shows that much of the major wheat belt in western and northwestern Oklahoma have received well above average precipitation in the past two months. The latest Drought Monitor shows that just 3 percent of the state has D2 level drought with no D3 and D4 conditions.

I recently traveled from Southeastern Colorado through the entire length of the Oklahoma Panhandle and the northwest part of the state. The majority of wheat fields looked very good with well-developed wheat stands, with just a few later planted fields with less growth.

Many fields are stocked with grazing cattle, including irrigated fields in the Panhandle and in Southeastern Colorado. The number of stocker cattle grazing winter wheat appears to be significantly larger than last year. In 2022, the estimated January 1 supply of feeder cattle outside of feedlots in Oklahoma (many of which are typically grazing wheat), was down 18.5 percent year over year and the lowest since 2014. Although overall cattle numbers now are less than one year ago, the January 1 feeder supply in Oklahoma may be larger year over year.

It is just an anecdotal observation, but it seemed that the number of stocker heifers on wheat in late December exceeded the number of steers. Although it appeared that cow-calf producers took advantage of strong prices to market both steer and heifer calves last fall, it is possible that decisions about whether stocker heifers on wheat will be feeders or replacements have not yet been made

Proper Vaccination Increases Calf Welfare and Value

Paul Vining, OSU Extension OQBN Coordinator

In beef calf preconditioning programs, the importance of vaccinations to minimize respiratory illness, related to bovine respiratory disease (BRD), cannot be overstated. The Oklahoma Quality Beef Network (OQBN) Vac-45 program mandates that calves receive two vaccinations against respiratory pathogens, with at least one being a modified live viral (MLV) vaccine. MLV vaccines, containing weakened viruses, elicit a more robust immune response compared to killed viral (KV) vaccines, which use inactivated viruses.

Research findings suggest that administering respiratory vaccinations after calves have departed the ranch of origin does not significantly prevent BRD at the following stages of the beef supply chain. Hence, administering appropriate respiratory vaccines before sale and commingling is crucial for providing immunity during the stocker and feedlot stages of the beef supply chain.

A 2011 study conducted by Oklahoma State University consisted of 337 non-preconditioned, unvaccinated heifers sourced from Western Kentucky. These heifers underwent evaluation during a 63-day backgrounding period before entering the feedlot finishing phase. The results revealed that heifers not requiring treatment for BRD, those treated once, twice, and three times, displayed a greater average net value of \$111.12, \$92.51, and \$20.62 above heifers considered chronically ill. These variations in net value primarily stemmed from differences in medical treatment costs and average daily gain (ADG).

Breaking down the medical costs, heifers treated for BRD once, twice, or three times, and those considered chronically ill, exhibited average higher costs of \$9.63, \$23.62, \$35.71, and \$35.34 compared to heifers that did not require BRD treatment. Furthermore, heifers treated for BRD once, twice, or three times, and those chronically ill, demonstrated ADGs that were 0.31 lbs., 0.93 lbs., 1.65 lbs., and 2.16 lbs. less than the ADG of heifers not requiring treatment for BRD.

In summary, proper vaccination against BRD-related pathogens during calthood establishes robust immunity. This not only enhances calf welfare but also improves performance and overall value throughout the beef supply chain.

Table 1. Economic and production effects of BRD for heifers during a 63-day backgrounding period (below)

BRD Treatment Frequency Variable	Beginning BW (lbs)	Purchase Price (\$/heifer)	ADG (lbs)	Drug Cost (\$/heifer)	End BW (lbs)	End Price (\$/heifer)
Untreated	536	606	3.11	0	731	705
Once	529	601	2.8	9.63	705	682
Twice	529	599	2.18	23.62	665	649
Three Times	531	602	1.46	35.71	624	612
Chronically Ill	540	591	0.95	35.34	580	573



Beaver County Extension Office

PO Box 339

Beaver, OK 73932

BEAVER COUNTY
EXTENSION

CALENDAR

Feb 3 Beaver Local Stock Show
 Feb 10 Beaver Co. Junior Stock Show
 Feb 12 Balko Local Stock Show
 Mar 5 Beef Producers Program
 Mar 19 OK Grazing Lands Coalition
 Aug 21-24 Beaver Co. & 4-H Fair

BEEF PRODUCERS PROGRAM

MARCH 5, 2024 6:30PM

Ashland VFW @ 201 W. 8th Ave, Ashland, Kansas

RSVP by February 29, 2024 @ 620-635-2811 or

email Amber at aagraff@ksu.edu

Oklahoma Grazing Lands Coalition Presents

ALEJANDRO CARRILLO

A Regenerative Grazing Journey in the
Chihuahuan Desert

March 19, 2023

9am—5pm

Cost is \$100 per person

Registration: Call 405-833-7919 or

visit: <https://alejandrocarrillo.eventbrite.com>

CHECK OUT MORE INFORMATION FROM COW/CALF CORNER AND HORTICULTURE TIPS on this link

<https://extension.okstate.edu/topics/>

Each section will give you a specific list where you can search
what you are looking for.

Oklahoma State University, as an equal opportunity employer, complies with all applicable federal and state laws regarding non-discrimination and affirmative action. Oklahoma State University is committed to a policy of equal opportunity for all individuals and does not discriminate based on race, religion, age, sex, color, national origin, marital status, sexual orientation, gender identity/expression, disability, or veteran status with regard to employment, educational programs and activities, and/or admissions. For more information, visit <https://eoo.okstate.edu>.

"Persons with disabilities who require alternative means for communication or program information or reasonable accommodation need to contact Liz Gardner McBee or Loren Sizelove at 580-625-3464 or beaverext@okstate.edu at least two weeks prior to the event."