



# Ag Insights

*From the Desks of Your Northwest Area Ag Specialists*

Oklahoma Cooperative Extension Service - Division of Agricultural Sciences and Natural Resources - Oklahoma State University

**April, 2019**

## **Planning for Financial Success with Grain Sorghum**

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The first step for success with grain sorghum is to manage the effect of sugarcane aphid. Early planting in April and proactive pesticide application are a good start in this endeavor. Careful scouting and early planting dates may completely eliminate the need for spraying or allow a producer to spray only once, which will help maintain profitability.

The aforementioned strategies have allowed producers to have success with grain sorghum even through low prices. Double crop acres do not benefit from this pest management strategy and have to rely entirely on varietal tolerance to the pest and pesticide use in order to make it to harvest. This could limit the genetics available to a producer, but plant breeders have released many suitable tolerant varieties in recent years.

A 70-bushel grain sorghum yield sold at \$3.00 gives a farmer \$210 per acre in revenue. Accounting for operating costs like seed, fertilizer, harvesting, herbicides, rent, and machinery costs, a producer could expect to spend \$200 per acre. This results in \$10 per acre in profits. This budget represents a high cost of production. Producers are encouraged to contact their local extension educator if they need assistance with building detailed budgets for their operation.

The budget above includes one application of pesticide to control sugarcane aphid. Using tolerant varieties and early planting dates will likely allow the producer to limit the use of pesticides, which is vital to financial success. A 70 bushel yield is above what many would consider average and may limit this crop to very productive acres with limited grassy weed pressure.

The Oklahoma Cooperative Extension Service and local seed dealers have access to literature that defines the level of sugarcane aphid tolerance in varieties currently available to producers. Potential growers are encouraged to consult these resources soon to gather this information.

The Oklahoma Cooperative Extension Service has also developed an app to help producers manage the economics of sugarcane aphid treatments. Search the App Store on your iPhone or Google Play on your Android device for "SCA Decision Aid" to download the app. An excel version of the tool is also available. Contact your local county extension office for more information.

# What to think about BEFORE getting Backyard Chickens

Dana Zook, Area Livestock Specialist, Enid, OK

This past month, I experienced a moment of weakness and considered getting chickens. Some may think this is a simple decision for a livestock specialist. Given my interest in feathered fowl, it might be surprising that I don't already have a few egg-layers of my own. However, living in an urban setting presents some challenges to having anything other than a dog or cat. In this article, I would like to briefly discuss a few considerations to make before purchasing chickens.

## **Rules and Regulations**

The first hurdle to overcome is to determine if chickens can be kept in your area. Is the place you wish to keep the birds in an urban or rural setting? Rural settings offer more flexibility on housing and coop design and are rarely hindered by regulations or zoning. If you live in an urban setting, consult the rules and regulations of the town you live in. Details to look for include property zoning, number and type of chickens allowed and requirements for building and setback of the chicken dwelling. Research any homeowners association guidelines as they may supersede city regulations. Do your homework ahead of time to prevent neighborhood complaints.

## **Breed Selection**

The selection of birds for your backyard will start with finding a source to purchase birds. A local feed store is a perfect place to find birds in the spring but there are also many reputable online sources that will send you chicks through the mail. Regardless of the source, don't be afraid to inquire about the chicks health. Some common questions include "Are the chicks vaccinated for Marek's disease or Coccidiosis?" and "Are the chicks sourced from a reputable hatchery that participates in the National Poultry Improvement Plan (NPIP)? These are valid questions that will influence the health and well-being of your future flock.

Next, consider the purpose of your backyard flock. Various breeds of birds can be used for many different purposes: 1.) Egg layers, 2.) Meat producers, 3.) Show/Exhibition, and 4.) Pets. Do your homework ahead of time to determine which breed matches the purpose of your new venture.

Space allowance will be the next factor in determining which breed of chicken is appropriate for your flock. Chickens come in all different sizes but most backyard flocks will have small to medium size birds. The Department of Animal Science at Oklahoma State University has a great website listing numerous breeds of chickens and other poultry at <http://afs.okstate.edu/breeds/poultry/chickens/chickens.html>.

## **Coop Design**

Coop design is an essential step in making a dwelling appropriate for the size and number of birds you wish to own. Avoid overcrowding as this can cause aggressive behavior, illness and cannibalism among the flock.

Most backyard flocks are confined to a coop and attached run. Coops should be built to have 3-4 sq. feet per bird inside and a minimum of 10 sq. feet per bird in the run or enclosure outside the coop. Other features to consider are a roost, nesting boxes, feeders and waterers. Ventilation is essential to keeping the inside of the coop dry.

Finally, build the coop and run with predation in mind. I once heard a presenter at a conference say "everything loves chicken". Protect your chickens with good latches on the doors and fence over the runs and windows. Fencing in the run should be buried 1 foot below ground. Chicken wire may not always be the best choice due to the large holes in the fence. Alternatively, look for fencing called hardware cloth that has holes no larger than ½ inch square. A few other factors of backyard chickens are flock health, manure management, and the availability of euthanasia. Consider the resources for each of these factors in your area and how you will handle each one of them.

In the end I decided against the chickens, but I am hopeful for the future when we might live in an area that is more fowl-friendly. I hope this article was helpful to those considering chicken ownership. For advice on poultry ownership or any poultry related questions, contact your local Oklahoma Cooperative Extension Service Educator for assistance.

# When is the Best Time (Age) to Castrate Bull Calves?

**Britt Hicks, Ph.D., Area Extension Livestock Specialist**

Beef Quality Assurance Guidelines recommend that bull calves that are not herd sire prospects be castrated as early in life as possible (preferably, between birth and four months of age). Some cattlemen believe that delayed castration improves growth in nursing calves due to a “testosterone effect” in intact bull calves. However, bull calves do not have significantly high levels of testosterone until they reach about 8 to 9 months of age. In addition, several studies suggest that there is no lifetime performance advantage to waiting to castrate calves until weaning. In fact, most research show that late castration (at weaning) decreases feedlot arrival gains and increases morbidity (sickness).

In 2003, Kansas State University research determined the effect of castration age and growth implants (Synovex C) on weaning and preconditioning weights. Calves were early castrated at 90 days of age with no implant, early castrated and implanted, or late castrated at weaning (226 days of age). Steers that were early castrated and implanted had weaning weights similar to those of bull calves, and both of these groups weighed 15 lb more than the early castrated non-implanted steers. However, 28 days after weaning the early castrated implanted steers weighed 20 lb more than the early castrated non-implanted or late castrated steers. These results indicate that early castration paired with growth promoting implants may yield more total pounds than either early or late castration alone when using a backgrounding program.

In a 2006 Oklahoma State University study, 2 to 3 month old bull calves were left intact or were castrated (surgically or banded) and all calves were implanted with Ralgro. At weaning (7 to 8 months), intact bulls were castrated (banded) and all calves were re-implanted with Ralgro. Weaning weights did not differ between intact bulls and castrated bulls. However, during a 50 day period following weaning bulls that were castrated at weaning gained 11.3% slower (0.12 lb/day less) than bulls that had been castrated at 2 to 3 months of age.

In 2011, University of Florida research investigated whether timing of castration in nursing calves affected calf performance and weaning weight. In this study, calves were either surgically castrated early (average age of 36 days) or late (average age of 131 days). Actual weaning weight (456 vs. 452 lb) and adjusted 205-day weaning weight (512 vs. 504 lb) were all similar between early and late castrate treatments, respectively. These researchers concluded that this data indicates that producers have some degree of flexibility in determining when to implement castration. The data also showed that castration at or near birth did not have a detrimental effect on calf performance or weaning weight.

In 2015, joint research between the University of Arkansas and West Texas A&M University (WTAMU) evaluated the effect of castration timing (near birth or at weaning) on lifetime growth performance and carcass quality of beef calves. In this study, calves were surgically castrated near birth or at weaning. All calves were weaned at day 214 of the study to undergo a 56-day weaning period. After this weaning phase, the calves were shipped 480 miles to the WTAMU Nance Ranch and grazed on native grass and sorghum-Sudan grass for a 111-day backgrounding period until entry into the adjacent WTAMU Research Feedlot. The calves were fed a common feedlot ration throughout the finishing period (average length of 128 days) and harvested at a commercial processing plant.

These researchers reported that there was no difference in weaning weight between the bulls left intact (483 lb) or the non-implanted steers castrated near birth (475 lb). However, during the 56 day weaning period, calves castrated near birth gained 10.3% faster than calves castrated at weaning (2.25 vs. 2.04 lb/day). Summer grazing and feedlot finishing performance and carcass measurements did not differ between treatments. These researchers concluded that the results of this study indicate that castration procedures should be performed as early in life as possible to minimize performance loss.

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Research from Nebraska (2005) has shown that as age of castration increases, weight loss resulting from the procedure increases (Figure 1). In addition, reviews of marketing data show that bull calves marketed through conventional channels have historically suffered a price discount of ~5% compared to steer calves (~\$6.00 to \$11.00/cwt discounts) since surgical castration of calves after arrival at a feedlot decreases daily gains and increases morbidity.

Collectively, these studies suggest that there is no lifetime performance advantage to waiting to castrate calves until weaning, but there is a high probability of receiving lower prices when marketing intact calves through conventional channels. When considering how age at castration affects animal welfare, the consensus is that the younger the calf is at time of castration, the less impact castration has on its welfare and performance

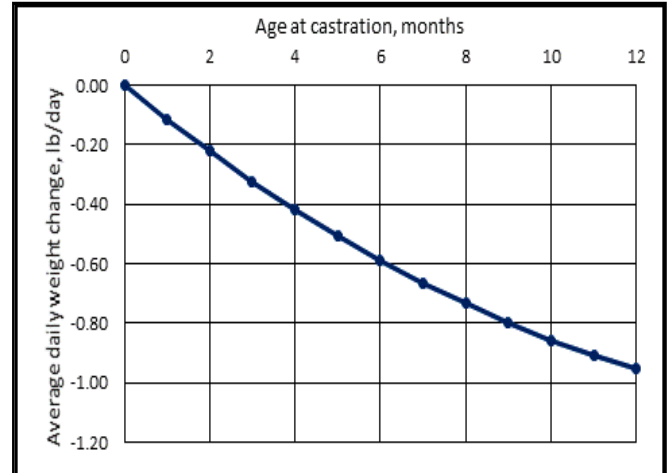


Figure 1. Average daily weight change of calves castrated by elastic band and surgical castration for the first 30 days post-castration.

Adapted from Bretschneider. 2005.





Logan  
County

**Logan County Cooperative  
Extension Service**  
215 Fairgrounds Rd., Guthrie, OK 73044

## **Small Acreage Landowner Series**

OSU Extension is offering an informative series of programs for landowners who want to manage their limited acreage profitably. Free classes limited to 20 applicants. Call to register.

### **SCHEDULE**

**April 9:** Soil Management Practices & Available Funding through NRCS: Speakers: Josh Bushong, OSU; D'Ann Peterson, USDA-NRCS; and Chris Sala, USDA-FSA

**April 18:** Forage Management: Speakers: Dana Zook and Josh Bushong, OSU

**April 23:** Selection, Care, & Management of Small Ruminants (goats and sheep): Speaker: Steve Hart, Langston University

**May 2:** Backyard Poultry Production: Speaker: Dana Zook, OSU

**All classes held from 6:00-8:00 p.m. at the Extension Office**

**Contact Brandon Boughen, Extension Educator**

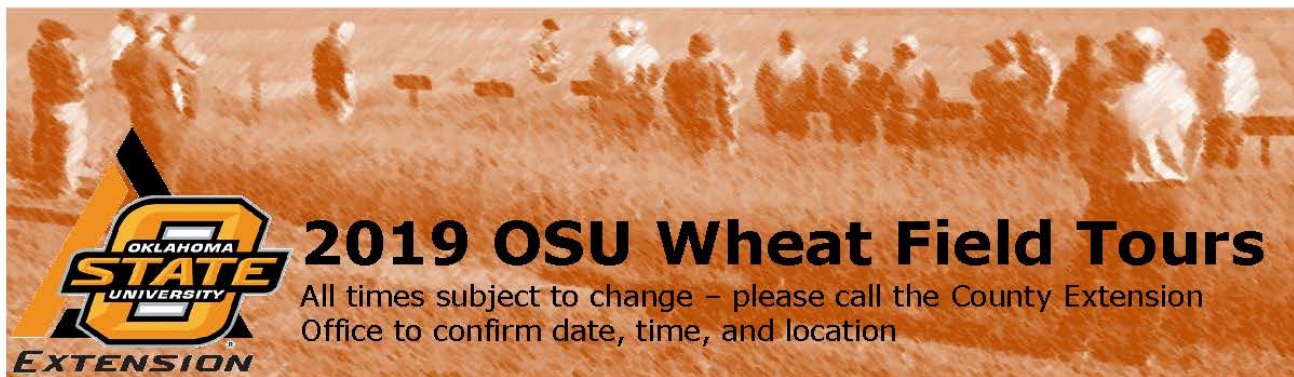
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## 2019 OSU Wheat Field Tours

All times subject to change – please call the County Extension Office to confirm date, time, and location

Date	Location	Time	Office Number	Notes
04/23/19	Walters	10:00 AM	580-875-3136	Replicated plot
04/25/19	Sentinel	11:00 AM	580-832-3356	Demo plot, end with lunch
04/26/19	Chickasha	9:00 AM	405-224-2216	Field Day, Tours start at 9:30
05/01/19	Apache	5:00 PM	405-247-3376	Replicated plot, meal after plot tour
05/01/19	Cheyenne	9:00 AM	580-497-3339	Demo plot
05/01/19	Butler	1:00 PM	580-323-2291	Demo plot
05/01/19	Weatherford	4:00 PM	580-323-2291	Demo plot
05/02/19	Gotebo	9:30 AM	580-726-5643	Demo plot
05/03/19	Afton	10:00 AM	918-542-1688	Replicated plot
05/06/19	Kildare	8:00 AM	580-362-3194	Replicated plot, Breakfast then plot tour
05/06/19	Cherokee	6:00 PM	580-596-3131	Replicated plot
05/07/19	Kingfisher	7:30 AM	405-375-3822	Replicated plot, Breakfast then plot tour
05/07/19	Altus – east	9:00 Am	580-482-0823	Demo plot
05/07/19	Altus	10:30 AM	580-482-0823	Replicated plot, end with lunch
05/07/19	Thomas	12:00 PM	580-323-2291	Replicated plot, Lunch then plot tour
05/07/19	Altus – west	1:30 PM	580-482-0823	Demo plot
05/07/19	Homestead	6:00 PM	580-227-3786	Replicated plot, meal then plot tour
05/08/19	Minco	10:30 AM	405-224-2216	Demo plot, end with lunch
05/08/19	Taloga	12:00 PM	580-328-5351	Demo plot, Lunch then plot tour
05/09/19	Waurika	10:00 AM	580-228-2332	Phosphorus Demo plot
05/10/19	Lahoma	8:30 AM	580-237-1228	Field Day, Tours start at 9, end with lunch
05/11/19	Alva	7:30 AM	580-327-2786	Review Varieties @ 8, Field tour @ 9:30
05/13/19	Morris	9:30 AM	918-756-1958	Repl. & Demo plot tour, ends with lunch
05/14/19	El Reno	8:00 AM	405-262-0155	Replicated plot
05/14/19	Greenfield	12:00 PM	580-623-5195	Demo plot, Lunch then plot tour
05/16/19	Lamont	9:00 AM	580-395-2134	Replicated plot
05/16/19	Caldwell, KS	12:00 PM	580-395-2134	Demo plot tour and lunch at noon
05/17/19	Braman	8:00 AM	580-362-3194	Demo plot and Nitrogen Trial
05/21/19	Buffalo	10:00 AM	580-735-2252	Replicated plot
05/28/19	Hooker	9:30 AM	580-338-7300	Replicated plot
05/28/19	Balko	1:00 PM	580-625-3464	Replicated plot
05/28/19	Goodwell	4:00 PM	580-338-7300	Replicated plot

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## Save the date! Winter Canola Spring Field Tours

- April 23<sup>rd</sup>
  - 9am- North Central Research Station- Lahoma
  - 2pm- Scott farms- Pond Creek
- April 25<sup>th</sup>
  - 10am- Rendel Farms- Miami



Come join OSU, Oklahoma Oilseed Commission, and Great Plains Canola Association for the winter canola field tours. Discussions will include variety performance and best management practices.



# Kansas—Oklahoma State Line Sheep & Goat Conference

**K-STATE**  
Research and Extension

**Saturday, April 6, 2019**  
**Alfalfa County Fairgrounds**  
**602 West 5th Street**  
**Cherokee, Oklahoma 73728**



- |         |   |  |
|---------|---|--|
| 9:00 am | Registration  | <i>Tommy Puffinbarger</i>  |
| 9:30    | Welcome—Overview  | OCES Alfalfa County  |
| 9:45    | Nutrition   | <i>Dr. Alison Crane</i><br>K-State Research & Extension<br>Sheep & Goat Specialist |
|         | Facilities<br>Hoof Trimming   | <i>Justin Goodno</i><br>K-State Research & Extension, Barber County                |
| 12:00   | Lunch Provided (RSVP) Sponsored by: Central Livestock, Farm Bureau, Footes Farm Supply, Hometown Market, Manhattan Meat Market, OK Coop & Cherokee Farmers Coop |  |
| 1:00    | Body Condition Scoring  | <i>J.J. Jones</i><br>OCES Area Ag Economist  |
|         | Vaccinations<br>Famacha   | <i>Dr. Barry Whitworth D.V.M.</i><br>OCES Area Food-Animal Quality Specialist      |
| 3:30    | Wrap up   |  |

For more information and to RSVP contact:  
Justin Goodno Barber County K-State Research & Extension  
Medicine Lodge, KS 620-886-3971 or  
Tommy Puffinbarger Alfalfa County OCES  
Cherokee, Oklahoma 580-596-3131.

Famacha kits will be available  
onsite for \$10.00 each.

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# Oklahoma Unwanted Pesticide Disposal Program

<http://pested.okstate.edu/html/unwanted.html>



May 2019

## When & Where?

8:00 am to 1:00 pm

**DATE** May 21, 2019  
**COUNTY** Pittsburgh County  
**CITY** McAlester  
**LOCATION** McAlester Expo Center W of McAlester on Highway 270

### What is the Oklahoma Unwanted Pesticide Disposal program?

The Oklahoma Department of Agriculture, Food and Forestry is funding a program to help collect and properly dispose of unwanted pesticides that homeowners, farmers, ranchers, commercial applicators, or dealers may have. For future locations and dates check the website listed above.

### What are unwanted pesticides?

Unwanted pesticides are pesticides that are unusable as originally intended for various reasons. Unwanted pesticides are leftover pesticides, pesticides that are no longer registered in the state of Oklahoma, pesticides that no longer have labels and pesticides that are no longer identifiable.

### Who is eligible to participate and what does it cost?

Oklahoma commercial and non-commercial applicators and pesticide dealers may participate. Oklahoma farmers and ranchers and homeowners can use the program as well. **There is no cost for the first 2,000 pounds of pesticides brought in by a participant.**

- Liquid pesticide weighs about 10 pounds per gallon.

### Will someone pick up my pesticides for me?

No it is the owner's responsibility to transport the pesticides to the site. Some transportation tips can be found at <http://pested.okstate.edu/pdf/transport.pdf>

### What are the steps to participate in the collection program?

Applicators, homeowners, farmers, and ranchers are not required to pre-register. Dealers are asked to voluntarily pre-register through the OSU Pesticide Safety Education Program. After completing pre-registration requirements, if required, bring unwanted pesticides safely to one of the collection sites. Visit the OSU Pesticide Safety Education Program for information and how to register at <http://pested.okstate.edu/html/unwanted.html>.

### Why are dealers asked to pre-register?

Dealers are asked to pre-register due to the potential of large quantities coming from multiple dealers and/or multiple locations. This allows the contractor to plan the appropriate resources to handle the quantity of pesticides that comes into the collections.

### Will the department use my participation in the program as a means to prosecute for illegal management of pesticides?

No, the disposal program is a service program designed to remove unusable pesticides from storage and reduce the potential threat to public health and the environment. Those disposing of pesticides will not be required to provide their names or details on their chemicals. The disposal service is free up to 2,000 pounds.

### Contact Information:



Charles Luper  
 Oklahoma State University  
 Pesticide Safety Education Program  
 405.744.5808  
[charles.luper@okstate.edu](mailto:charles.luper@okstate.edu)

Ryan Williams  
 Oklahoma Department of Agriculture  
 Consumer Protection Services  
 405.522.5993  
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