

MAY 2019

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ISSUE V



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# TURN ROW TIMES

A PUBLICATION OF TEXAS A&M AGRILIFE EXTENSION -  
WILLIAMSON COUNTY



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TEXAS A&M  
**AGRILIFE**  
EXTENSION



# WHAT'S THE BUZZ?

IN WILLIAMSON COUNTY AGRICULTURE



Path to the Plate is a program connecting consumers with the food on their plate and producers with the consumers they feed. During April, one of our agents got to travel to Weslaco and experience agriculture production in the valley. Olives, citrus, coffee, vegetables, fruit and beef cattle were all topics of discussion. If you would like more information on this program, give our office a call!



Podcast

## BLACKLAND FARMER

DOWNLOAD NOW!

<http://blacklandfarmer.libsyn.com/>



Williamson County hosted a regional Vector Management Program, where our participants learned about mosquito biology and control, pesticide management and laws and regulations.

**HAVE A QUESTION?**

**CALL US!**

**512-943-3300**



Earth Day was observed on Monday, April 22. Farmers and Ranchers try to diligently take care of the Earth for future generations and we say thank you!



 Follow us on Facebook @ Williamson County Agriculture - Texas A&M Agrilife Extension

 Want to join our email list? Contact us at [williamson-tx@tamu.edu](mailto:williamson-tx@tamu.edu) to be added!

# Census says: More beef cattle operations

## Farmers are aging and operations with beef cows are increasing.

Written by: Wes Ishmael and sourced from: [beefmagazine.com](http://beefmagazine.com)

Beef cattle operations bucked some overall trends that were revealed in the recently released 2017 Census of Agriculture from USDA's National Agricultural Statistics Service. While total farms in the U.S. decreased 3.8% (-67,083 farms), compared to the 2012 Census, there were 1,140 more farms with beef cows (+0.16%).

Specifically, at the end of 2017 there were 729,046 farms with beef cows, according to the Census. Smaller herds continued to dominate with 79% of operations having 1 to 49 cows and 27% of all beef cows. Operations with 200 or more cows represented 4% of the population, but 38% of all cows.

For cattle perspective, the beef cowherd grew by 9.5% (+2.76 million head) from the 2012 Census to the most recent one.

Besides herd expansion being in full bloom at the time, the robust economy and distance from the Great Recession likely explains at least some of the growth in beef cattle operations.

The most growth in operations, by herd size, was for those with: 100-199 cows (+17.4% or +6,346 operations); 50-99 cows (+13% or +9,227 operations); 200-499 cows (+12.7% or +2,624 operations).

Even the largest operations grew: 7.6% more operations (+323 operations) with 500-999 cows; 6.8% more (+77 operations) with herds of 1,000-2,499 cows; +17.9% (+30 operations) with 2,500 or more cows.

At the opposite end of the spectrum, the only categories of decline were for herds of 1-9 beef cows (-6.2% or -16,181 operations) and herds with 10-19 cows (-4.7% or -7,290 operations).

All of that is contrary to overall Census trends when considering all farms by total sales.

There were 77,000 farms with sales of \$1 million or more, which was 2,000 fewer than in 2012, but 1,000 more farms with sales of \$5 million or more.

There were 792,000 farms with sales of less than \$2,500, which were 4,000 more (+0.5%) more than 2012.

In between were farms with sales of \$2,500 to \$999,999, which totaled 1.17 million. That was 69,000 fewer (-5.5%) than 2012. There were 39,000 fewer farms (-4.9%) with sales of \$2,500 to \$4,999 and 30,000 fewer farms (-6.9%) with sales of \$50,000 to \$999,999.

Farms with sales of \$5 million or more accounted for fewer than 1% of all farms but 35% of all sales. On the other end of the scale, farms with sales of \$50,000 or less accounted for 76% of the farms and 3% of the sales.

Incidentally, according to the latest Census, "The average age of all U.S. farm producers in 2017 was 57.5 years, up 1.2 years from 2012, continuing a long-term trend of aging in the U.S. producer population. Producers also tend to be experienced; they had been on their current farm an average of 21.3 years."

## Williamson County Sheep and Goat Management Workshop

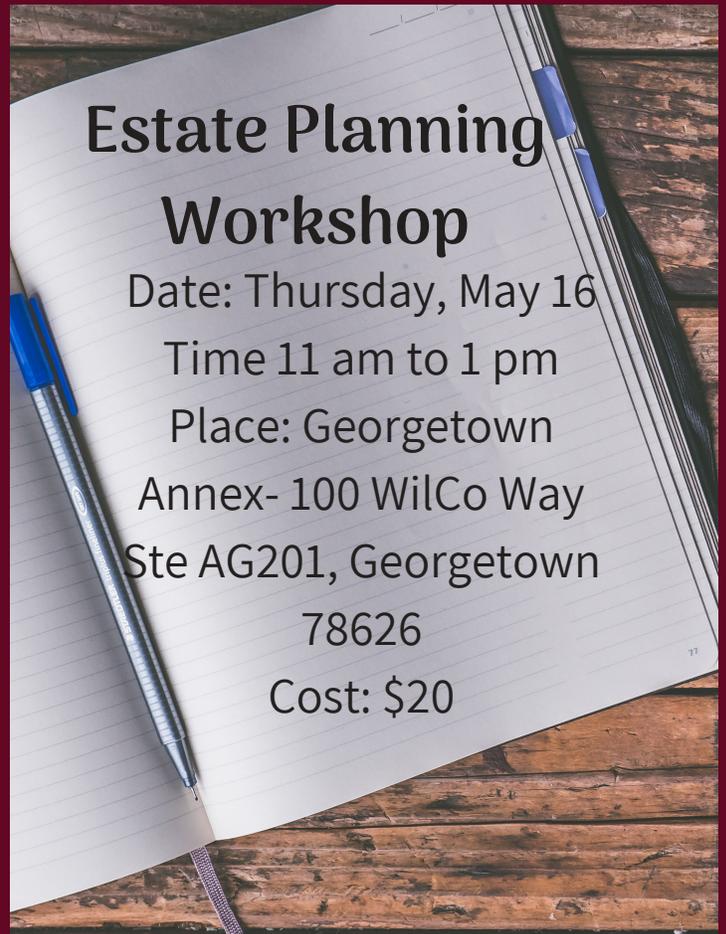


**Date: May 14, 2019**  
**Time: 9:30 am - 2 pm**  
**1651 CR 305, Jarrell**  
**Cost: \$10**



## Estate Planning Workshop

**Date: Thursday, May 16**  
**Time 11 am to 1 pm**  
**Place: Georgetown**  
**Annex- 100 WilCo Way**  
**Ste AG201, Georgetown**  
**78626**  
**Cost: \$20**



## Non-Commercial Political Pesticide License Training

**Date: May 29 & 30**  
**Time: 8 am - 5 pm**  
**Place:**  
**J.B. Hallie Jester Bldg**  
**1801 E Old Settlers Blvd**  
**Round Rock, TX**  
**Register at**  
**[livestockvetento.tamu.edu](http://livestockvetento.tamu.edu)**  
**or**  
**254-968-4144 ext 225**

## Williamson County Pond Management



**Date: Tuesday June 4**  
**Time: 9:30 am - 4 pm**  
**Place: 100 WilCo Way,**  
**Georgetown 78626**  
**Cost: \$15**  
**CEU's Available!**



## Season Nitrogen Application

With harvest rapidly approaching, it is time to make the final management decisions that can maximize wheat revenue. In addition to controlling insects and applying fungicides, growers may want to consider making a late season nitrogen application. Despite an abundance of wheat worldwide, there is a shortage of high protein wheat which has generated protein premiums at delivery points across Texas the last several years. On average, protein is 1/6th nitrogen and, therefore, soils lacking in adequate nitrogen will result in lower yield and lower grain protein. Unlike nitrogen applied prior to jointing, which helps to maximize yield, late season applied nitrogen can help to boost protein levels. This is true because wheat is able to uptake nitrogen late in the season, but by heading, the crop has already set its yield potential. Research has shown that nitrogen applied late in the growing season can raise protein levels up to 0.8 percentage units (Table 1) or more in some situations.

Several factors must be considered when deciding whether or not to apply late season nitrogen, the first of which is the yield potential of the crop. Currently, Texas A&M AgriLife Extension nitrogen fertilization recommendations are to apply 1.5 lb N per bu of expected grain yield (minus any residual nitrate nitrogen that can be credited in the soil). Roughly 1/3 of this should be applied in the fall around planting and the remaining 2/3 at topdress. High yielding wheat that exceeds early season expectations often has lower grain protein content. This is usually due to insufficient nitrogen applications earlier in the season to meet the need of the additional grain production. These situations would benefit most from another application of nitrogen.

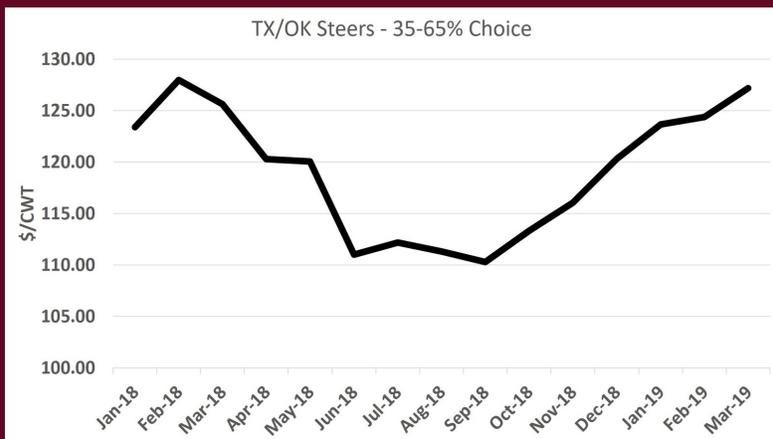
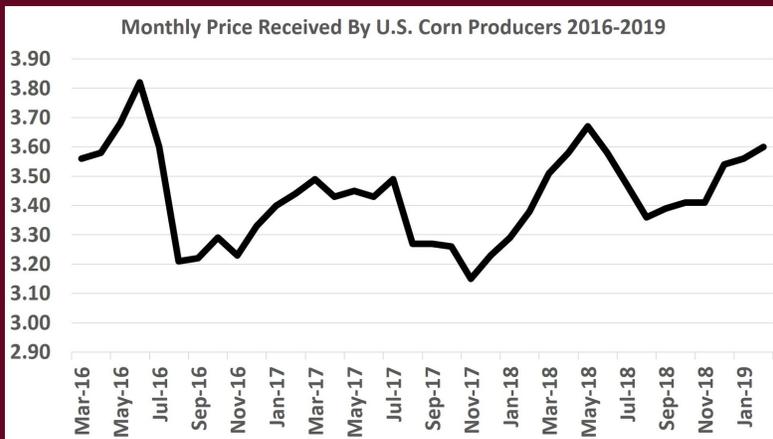
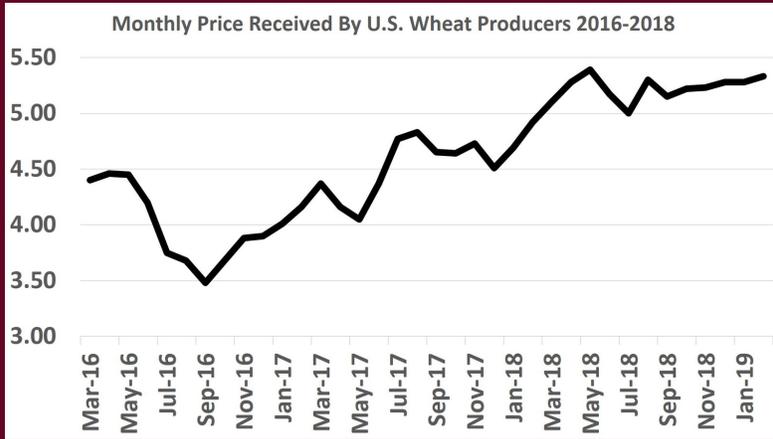
*Sourced from Brandon J. Gerrish, Small Grains Program Specialist; Clark Neely, Small Grains Extension Specialist, College Station*

Studies done in South Dakota on winter and spring wheat increased grain protein 70% of the time when yield goals were exceeded, but only 23% when yield was lower than expected (Bly et al., 2003). Figure 1 shows an example of how grain protein can continue to increase even after yield is maximized following different nitrogen rates applied at the typical spring topdress time in a soft red winter wheat in northeast Texas. Similar reports are documented in hard red wheats. If yield potential is similar to or lower than expected, late season nitrogen is less likely to provide a bump in protein as adequate nitrogen is available to meet plant needs.

While wheat varieties can differ in grain protein, these differences are often driven by yield in any particular environment. Figure 2 demonstrates the negative relationship between grain yield and grain protein in a hard red winter wheat variety trial. Lower yielding varieties are nearly always the highest in grain protein and vice versa. Producers are cautioned when making comparisons among varieties for protein levels, and should only make comparisons when varieties are similar yielding. Looking at protein data from multiple years or locations is also suggested to determine protein consistency across environments.

Other factors to consider are fertilizer costs and expected grain prices. If premiums for protein levels above a certain level (or discounts for those below a certain level) are expected, then a positive return on fertilizer cost is more likely.

# MARKET MINUTE



Futures Markets		
<b>Corn</b>		
May 2019	353'4	+2'2
July 2019	363'2	+2'0
September 2019	371'4	+2'0
<b>Wheat</b>		
May 2019	393'6	-6'2
July 2019	402'0	-5'6
September 2019	413'0	-5'2
<b>Oats</b>		
May 2019	317'6	+9'0
July 2019	297'6	+3'0
September 2019	277'0	+0'2
<b>Live Cattle</b>		
April 2019	124.700	+0.150
June 2019	114.725	-0.325
August 2019	112.425	-0.225
<b>Feeder Cattle</b>		
May 2019	143.800	-0.150
August 2019	151.700	-1.150
September 2019	153.250	-0.525
Numbers derived from the CME Group – Prices represent real time and are just a snap shot of the market at that time *Prior Settle Prices		

The projected likelihood of receiving a positive return on fertilizer investment is displayed in Figure 3. The optimal time for late season nitrogen applications is anywhere from pre-flowering up to two days after flowering. Pre-flowering is favored under dryland scenarios whereas protein is typically maximized at post flowering when rainfall or irrigation can incorporate nitrogen quickly into the soil (Jones and Olson-Rutz, 2012). Applying nitrogen about 10 days after heading would be a good rule of thumb to hit this crop stage.

Research has shown that at least 30 lbs/N per acre (10 gallons of 28-0-0) is needed to achieve significant increases in grain protein. Foliar applications using flat fan tips may be the best method for application as leaf pores within leaf cuticles are able to absorb urea, ammonium, and nitrate relatively quickly. The use of dribble tips or other forms of nitrogen, such as dry urea, can help mitigate leaf burn concerns but will need rain or irrigation to move it into the root zone where it is accessible to plants. The flag leaf provides the vast majority of nutrients to the developing seed head so it is critical that leaf burn is minimized. Therefore, it is recommended that foliar applied nitrogen is mixed in a 50/50 ratio with water. When able, aim for early evening applications to avoid the hottest parts of the day when leaf burn is most likely to occur. Fungicide and nitrogen applications should be made independently of each other as tank mixtures can also result in leaf damage.

*Sources found*

at: <https://agriflife.org/texasrowcrops/2019/04/17/increase-wheat-grain-protein-via-late-season-nitrogen-application/>

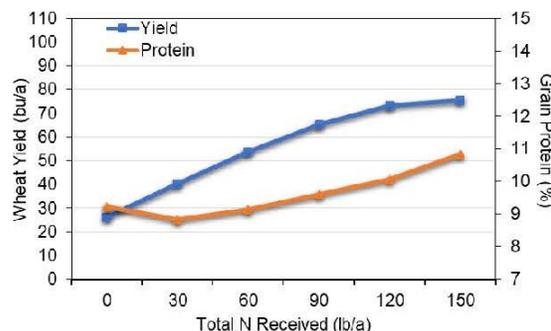


Figure 1- Winter wheat grain yield and grain protein response to increasing nitrogen rate. Data provided by Neely et al (unpublished).

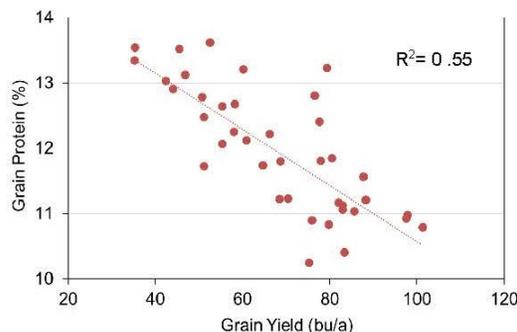


Figure 2 - Winter wheat grain protein as influenced by grain yield in a variety trial at Thrall, TX in 2018 (Neely et al., 2018).

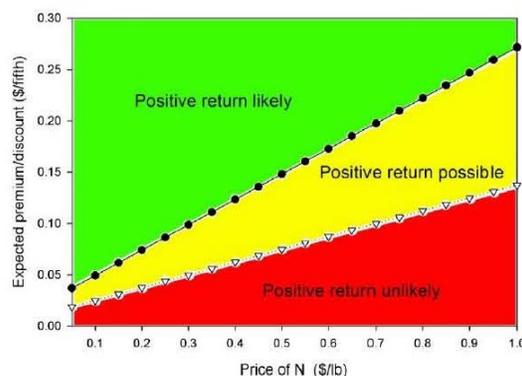


Figure 3- Wheat Protein Response Decision Guide developed by Kaiser and Wiersma, University of Minnesota Extension, 2017.

**Summary of 1995-2000 studies on hard red spring wheat, South Dakota**

Treatment	Yield, bushels/acre	Protein, %
Check	42.5 a	14.2 c
30 lb N/acre at boot stage	40.2 b	14.4 b
30 lb N/acre post-anthesis	41.2 ab	14.7 a

**Summary of 1995-2000 studies on hard red winter wheat, South Dakota**

Treatment	Yield, bushels/acre	Protein, %
Check	70.5 a	11.8 c
30 lb N/acre at boot stage	70.1 a	12.2 b
30 lb N/acre post-anthesis	69.7 a	12.6 a

Table 1- Effects of preplant and late season applied nitrogen vs. preplant applied only (Check) on protein percentage. H Woodard and A. Bly. 1995-2000. South Dakota State University. Reported by J. Bauder, Montana State, Agronomy Note 290, 2001.

Agriculture ... is our wisest pursuit, because it will in the end contribute most to real wealth, good morals & happiness.

LETTER FROM THOMAS JEFFERSON TO GEORGE WASHINGTON 1787



## U P C O M I N G E V E N T S

**May 14**

WilCo Sheep and Goat  
Program

**May 16**

Estate Planning Lunch and  
Learn

**May 29 & 30**

Non-Commercial Political  
Pesticide Licence Training

**June 4**

Williamson County Pond  
Management

**June 11**

Private Applicator Training

**Tyler Coufal**

CEA - Agriculture

tyler.coufal@ag.tamu.edu

**Shelley Franklin**

CEA - Natural Resources

shelley.franklin@ag.tamu.edu

**Website:** <https://williamson.agrilife.org/>

**Podcast:** <http://blacklandfarmer.libsyn.com/>

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