Palo Pinto County Agriculture and Natural Resources Newsletter

TEXAS A&M AGRILIFE EXTENSION

Summer 2019

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UPCOMING PROGRAMS

- **May 21 - Beef Quality Assurance Program - Palo Pinto**
- **September 13 - Juniper Control Land Symposium - Stephenville**

***Call 940-659-1228 for more info**

USDA advancing animal disease traceability

The transition to electronic identification in cattle and bison

Moving from metal identification tags to electronic identification tags in beef and dairy cattle, as well as in bison will strengthen our traceability system. (USDA NRCS South Dakota, Flickr/Creative Commons)

AUSTIN – The United States Department of Agriculture (USDA) is currently working with federal, state and industry partners to strengthen its traceability system to protect the long-team health, marketability and economic viability of the U.S. livestock industry. While there are several steps USDA needs to take in order to do this, the most essential one is to move from metal identification tags to electronic identification tags in beef and dairy cattle, as well as in bison.

"The transition from metal identification tags to radio frequency identification (RFID) tags will not happen overnight," assured Dr. Andy Schwartz, Texas Animal Health Commission (TAHC) Executive Director and State Veterinarian. "The transition is projected to take four years and we want to use this time to educate and encourage Texas cattle, dairy and bison producers to start taking steps toward electronic identification."

Starting January 1, 2023, only individual official RFID tags will be accepted as official identification for cattle and bison moving interstate, including:

Beef Cattle & Bison

- Sexually intact and 18 months or older
- Used for rodeo or recreations events (regardless of age)
- Used for shows or exhibitions

Disease Traceability cont.

Dairy Cattle

•All female dairy cattle

•All male dairy cattle born after March 11, 2013

Implementation Timeline:

USDA understands producers need time to transition to RFID and has worked with the National Assembly of State Animal Health Officials to establish manageable milestones to achieve this goal.

December 31, 2019

USDA will discontinue providing free metal tags. However, approved vendors will still be permitted to produce official metal tags for one additional year. Approved vendor tags will be available for purchase on a state-by-state basis as authorized by each state animal health official through December 31, 2020.

January 1, 2021

USDA will no longer approve vendor production of metal ear tags with the official USDA shield. Accredited veterinarians and/or producers can no longer apply metal ear tags for official identification and must start using only official RFID tags.

January 1, 2023

RFID ear tags will be required for beef and dairy cattle and bison moving interstate that meet the RFID tagging requirements. Animals with metal ear tags will have to be retagged with RFID ear tags in order to move interstate. Feeder cattle and animals moving directly to slaughter are not subject to RFID requirements.

Consumers prefer pork cooked to 145 degrees

Try cooking chops to the new USDA standard: 145 degrees Fahrenheit

"Pork cooked to 145 degrees is absolutely safe," says Dustin Boler, associate professor in the Department of Animal Sciences at U of I and co-author of a new study in the Journal of Animal Science. "And our results show that everyday consumers strongly prefer pork chops cooked to 145 over the old standard of 160 degrees." (Patrick Kuhl, Flickr/Creative Commons)

URBANA, Ill. — Are pork chops on the menu this grilling season? According to new research from University of Illinois meat scientists, pork enthusiasts can improve taste, juiciness, and tenderness by cooking chops to the new USDA standard: 145 degrees Fahrenheit.

“Pork cooked to 145 degrees is absolutely safe,” says Dustin Boler, associate professor in the Department of Animal Sciences at U of I and co-author of a new study in the Journal of Animal Science. “And our results show that everyday consumers strongly prefer pork chops cooked to 145 over the old standard of 160 degrees.”

Boler and his research team had already demonstrated that trained taste-testers prefer pork chops cooked to 145 degrees, but the team wanted to try their luck with the average consumer this time. Like the trained taste-testers, average consumers were asked to rate juiciness, tenderness, flavor, and overall acceptability of pork cooked to 145, 160, and 180 degrees Fahrenheit.

“The results were what we expected: consumers rated juiciness, tenderness, and flavor much higher in pork chops cooked to 145 than the other temperatures. These were the first data in consumers that conclusively supported what we knew from our own experience,” says Lauren Honegger, graduate student researcher and lead author on the study.

The research team was able to rule out other confounding factors, as well. Consumers tasted two sets of pork chops: one that varied in pH, and the other that varied in degree of color and marbling.

Boler says meat scientists historically put a lot of stock in pH to predict eating experience. Higher pH equates to higher water-holding capacity in the muscle, which influences juiciness in the final product on the plate. But, he says, the importance of pH was based on pork cooked to the old temperature standard of 160 degrees.

Boler wanted to find out if pH was still as important in the context of today’s cooking standard. The answer? Not really. Consumers still rated chops cooked to 145 as tastier, juicier, and more tender than chops cooked to 160, regardless of pH.

“It’s not that pH doesn’t matter, it’s that when we do all of the other things to a pig that appropriately puts pork in a package – when we humanely slaughter that animal, when we appropriately chill that carcass, when we treat those meat products with proper food safety and preparation techniques – then pH doesn’t matter,” Boler says. “In other words, when we prepare the product properly, pH matters less when we cook it to 145 degrees.”

Co-author Anna Dilger, associate professor in the Department of Animal Sciences at U of I, says the story was the same with color and marbling.

“We think darker color and more marbling should lead to a better tasting pork chop, but that’s not what consumers told us. They gave the highest ratings to pork chops cooked to 145, regardless of color and marbling,” she says.

It turns out from other research that color and marbling matter a lot when consumers are choosing which pork chop to purchase, but the consumer panel confirms those qualities don’t factor into eating experience when the chop is cooked to the new standard.

The take-home message for grill-masters, Boler says, is, “Get a meat thermometer, cook your pork to 145 degrees, and it’ll be great.”

Dr. Hennen Cummings's FUNdamentals of Lawn Care.

1) Plant an adapted species for each of your microclimates (shade vs. full sun, traffic - dogs, kids etc.), management that you intend to give it (mow 4 x /month vs. mow 2 x /month, irrigation, fertility, weed control, etc.), and your budget (sod, plug, springs, seed, and items above).
   Warm-season grasses: bermudagrass, St. Augustinegrass, zoysiagrass, centipedegrass, buffalograss, seashore paspalum.
   Cool-season grasses: tall fescue, annual ryegrass, perennial ryegrass, Kentucky bluegrass

2) Plant fresh (live) grass seeds when they will grow quickly (early summer for warm-season grasses, fall for cool-season grasses) to prevent weeds. Rain may wash seeds; birds may eat seeds. Will need to be able to lightly irrigate every day three times per day. Do not use herbicides when establishing grass from seed.

3) **Mow regularly so that no more than 1/3 of the blade is removed. If the mowing height is 2", then mow it when it is 3". If the mowing height is 4", then mow when turf is 6". If turfgrass grows about 0.25"/day, then mow every 4 days at 2" vs. mow every 8 days at 4".**

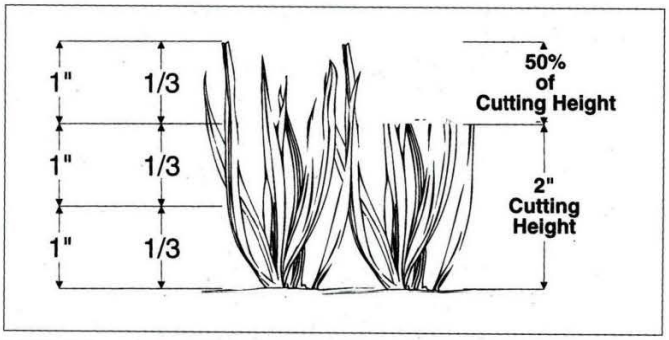


FIGURE 7-1 Example of one-third rule

4) Mow turf at the highest setting possible especially in shade and heat of summer. Now, one does not have to mow as often. Longer shoots have longer roots which will help turf with nutrient and water uptake. However, turf is more dense, and blades are more narrow when mowed frequently at lower mowing heights. Mulch clippings when mowing frequently enough to obey the 1/3 rule. Bag weed seedheads, excessive clippings, and leaves. Do not scalp lawn until mowed two times in spring. Mulch underneath the drip line of trees with shredded wood or leaves etc. and do not continue to manage weak stands of grass under trees or heavy traffic (dogs). Grass in shade requires <u>less</u> fertilizer and highest mowing height. Raise and thin the tree canopy to increase quantity of filtered light.

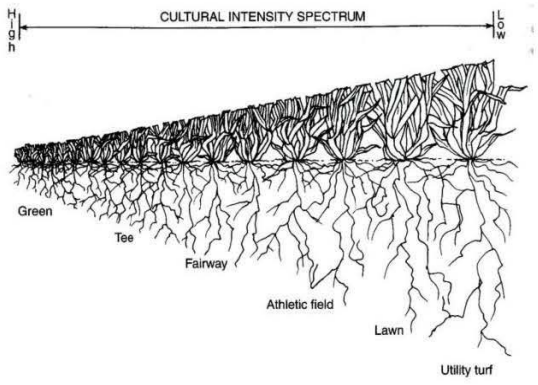
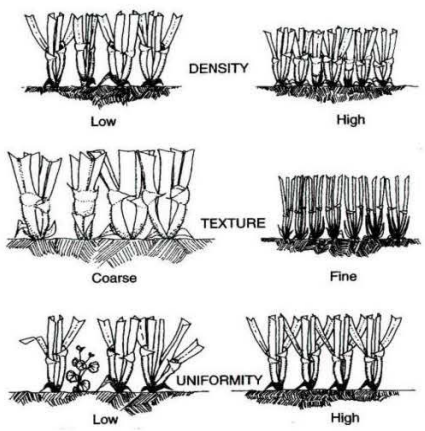


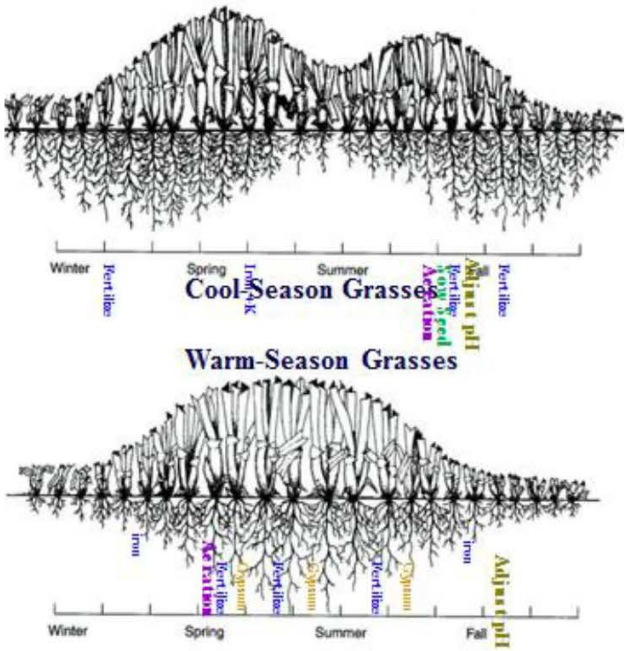
Figure 9.1. The turfgrass cultural intensity spectrum showing relative positions of greens, tees, fairways, athletic fields, lawns, and utility turfs.

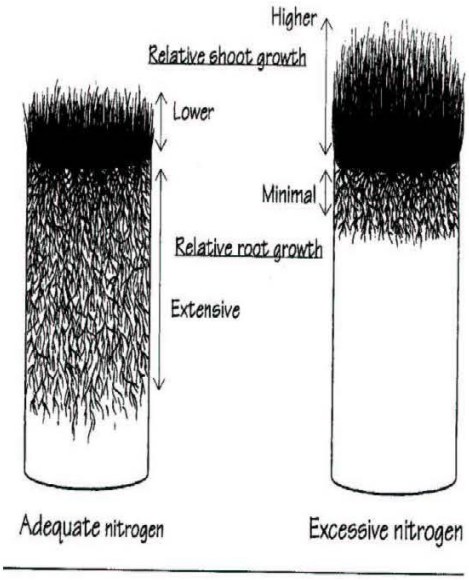


5) The key to a weed free lawn is a dense, aggressive turf. (Mow, fertilize, & irrigate properly). Less sunlight reaches the soil surface, and fewer weed seeds are stimulated to germinate.

6) Fertilize warm-season grasses only during the summer months (May-Sept.).

7) May and September apply 0.5#N/1000ft²/month, June, July, and August apply1.0 #N/1000ft²/month. Fertilizing in early spring will cause shoot growth that cannot be supported by the existing roots. Spring and fall fertilizing with nitrogen may result in injury from cold weather or disease. Do not encourage turf to break dormancy. Early fertilizing may just encourage weed growth and lengthens the mowing season. Fertilize cool-season grasses in September, November, and February at 1.0 #N/1000ft²/month and never with nitrogen in summer. Fertilizing lawns before May and after September increases weed growth (weed seeds) which extends the mowing season.





8) Fertilizers like 28-3-10 have 28% nitrogen (0.28), 3% phosphorus (P_2O_5) and 10% potassium (K_2O). Fertilize based on the recommendations of a soil report or use fertilizers that have 4:1:2 ratios like a 16:4:8. Fertilizers with the least amount of water-soluble nitrogen are the best. Follow the "*" to find the amount of slowly available nitrogen. One wants at least ½ of the nitrogen to be slow release. Fertilizers with a high middle number are "starter fertilizers", and fertilizers with a high last number are good for stress like drought or dormancy; they may be called "winterizers only if low in nitrogen" for warm-season grasses. Adding iron is the best way to green a lawn because it does not increase the amount of clippings, but it may stain your driveway, so blow it off. Want at least 2% iron or more.

   A) Want / Got = 1 # N / 0.28 = 3.6 # fertilizer / 1000ft². 9,000ft² * 3.6 # fertilizer / 1000ft² = 32.4 pounds of fertilizer. Do not apply the entire 50 # bag of 28-3-10 on 9,000ft².

   B) Mulching clipping will reduce the amount of fertilizer and water needed, but one needs to mow regularly in order to mulch properly.

9) Use organic fertilizers like Milorganite (5-2-0) on St. Augustinegrass in early summer. Need to find another source of potassium since there is no K_2O in a fertilizer with a 5-2-0 analysis. One will use more Milorganite than 28-3-10. Want / Got = 1 # N / 0.05 = 20 # fertilizer / 1000ft². 9,000ft² * 20 # fertilizer / 1000ft² = 180 pounds of fertilizer for 9,000ft² vs 32.4 pounds of 28-3-10 for 9000ft².

10) Irrigate lawns twice a week with 0.5" of water each time. Fill up a tuna can per week. Irrigate in the early morning to reduce the amount of disease (reduce amount of time plant is wet) and prevent water loss due to evaporation. About 15 minutes for pop up spray heads and 30 minutes for rotating heads. Measuring how long each station takes to fill several tuna cans ½ full is a much better way than guessing at a time. Use the cycle/soak function to water deeply and infrequently without runoff. The best way to irrigate is to use a soil probe (shovel) to see how long to irrigate in order for water to reach 6" deep. Use the cycle/soak function to water deeply and infrequently without runoff. Try to keep reducing the run times until stress occurs then increase the minutes slightly. Do not set it and forget it. Leave the timer in the off position until your lawn shows drought symptoms. Otherwise, one is just increasing the mowing frequency requirement and quantity of water applied. Watch your system run periodically and adjust arcs of each head as needed. Wait as long as possible after a rain before irrigating in order to maximize the time the turf is growing without the presents of salts because the irrigation water is likely high in salts, and rain leaches the salts out of the root zone. Leave timer in off position in winter. Regularly irrigating lawns before May and after September increases weed growth (weed seeds) which extends the mowing season. The more one irrigates, the more often one will have to mow.

11)

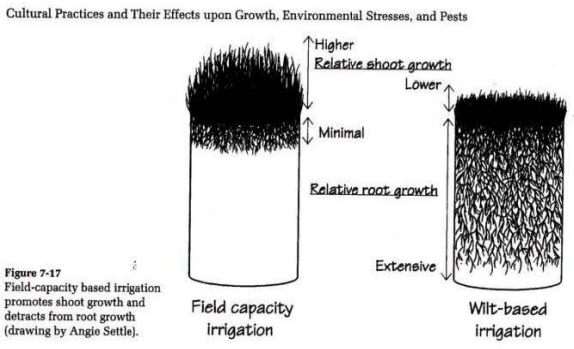
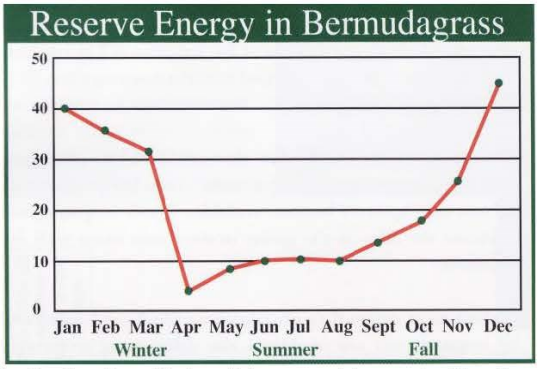


Figure 7-17
Field-capacity based irrigation promotes shoot growth and detracts from root growth (drawing by Angie Settle).



12) The fewer herbicides one uses on St. Augustinegrass, the better it will do. May want to apply Scotts Bonus S once as first fertilizer in late spring to St. Augustinegrass lawns to control mature winter annual and young summer weeds. It has atrazine in it which will severely injure the bermudagrass in the same lawn. Adding nitrogen may make herbicides more effective.

13) Apply preemergence herbicides to control annual weeds. Apply Lesco Pre-M 0-0-7 from Home Depot using a granular fertilizer spreader in Sept. to control henbit, chickweed, catchweed bedstraw, and annual bluegrass. Apply Lesco Pre-M 0-0-7 in early Feb. to control crabgrass, stickers (field sandbur), and goosegrass. Perennial weeds like dallisgrass, king ranch bluestem, and dandelions are not controlled by preemergence herbicides and may need to be hand pulled. Blow off driveway to prevent staining by preemergence herbicides. Do not apply preemergence herbicides to areas where you are trying to grow something from seed. Do not use preemergence herbicides that have nitrogen because the timing of the two components does not coincide except for mid summer in a split application scenario on warm-season grasses. There is not a preemergence herbicide that one can use where animals may graze. Using PRE-M repeatedly every spring may weaken St. Augustinegrass.

14) Try to avoid fertilizers that also contain postemergence herbicides like 2,4-D. They may be called Weed and Feeds. They need to be applied when the turf is wet, so they can stick to the weed leaf. However, these products may be the only option for a person to control perennial weeds like dandelions with a herbicide if the person cannot spray a herbicide. One may have some success with fertilizers that contain atrazine (root absorbed), but atrazine will severely injure bermudagrass.

15) Control fire ants when they are foraging (find Cheetos in 20 minutes) with fipronil (Over and Out). Control grubs when they are small (dig hole) before one sees damage to turf with Chlorantraniliprole

(Grubex). Moles are not easy to control. Controlling white grubs is a starting point, but grubs are not their only food source (we want earthworms). After controlling grubs, there are poisons (bait) that need to be placed carefully in an active tunnels regularly (every two days) until the moles are gone because there are usually several moles in one location. Active tunnels are usually along driveways and homes. Often neighbors share moles, so working together is vital. Treat for moles as soon as you see their tunnels if they try to return in the future. As with any bait, fresh bait is imperative and do not irrigate while bait is out.

16) **In summary, the greatest room for improvement for most homeowners is raising the mowing height and breaking the cycle of letting the turf getting real tall and then mowing low in order to lengthen the time between mowings. Raise the mowing height to the highest setting.**

For more information

- http://aggie-turf.tamu.edu/
- Google Turffiles www.turffiles.ncsu.edu http://www.turffiles.ncsu.edu/Maintenance_Calendars.aspx

28-3-10

PROFESSIONAL TURF FERTILIZER
For use in Rotary Spreaders Only

Contains Poly Plus® Sulfur Coated Urea to provide uniform growth with extended nitrogen feeding.

50 lb COVERS 14,000 sq ft

DIRECTIONS FOR USE: This product is a professional quality turf fertilizer for use on fairways, tees, and other turf. The best results with this product are obtained when it is applied to dry turf and actively growing grass. Water into the turf soon after application. Avoid mowing immediately following application to prevent pick-up.

For best results, sweep or blow the fertilizer off walks and painted surfaces following application to avoid discoloration.

Recommended applications are at the rate of one pound of nitrogen per 1,000 sq ft. Actual rates and timing of applications will vary with weather, soil and turf conditions.

COVERAGE: 50 pounds of 28-3-10 Fertilizer covers approximately 14,000 sq ft at the application rate of one pound of nitrogen (3.6 pounds of fertilizer) per 1,000 sq ft.

GUARANTEED ANALYSIS

TOTAL NITROGEN (N)	28.00%
1.15% Ammoniacal Nitrogen (N)	
26.85% Urea Nitrogen (N)*	
AVAILABLE PHOSPHATE (P_2O_5)	3.00%
SOLUBLE POTASH (K_2O)	10.00%
SULFUR (S) Total	4.30%
4.30% Free Sulfur (S)	
IRON (Fe) Total	4.50%
0.045% Water Soluble Iron (Fe)	

DERIVED FROM: Polymer Coated Sulfur Coated Urea, Urea, Ammonium Phosphate, Muriate of Potash, Iron Sucrate.

CHLORINE (Cl) Max 8.00%

*12.60% Slowly Available Urea Nitrogen from Polymer Coated Sulfur Coated Urea.

Follow the asterisk

Want iron to be greater than 2%

Want slowly available nitrogen to be at least half of total nitrogen.

NAME	CAS #
Urea	57-13-6
Calcium Carbonate	471-34-1
Potassium Chloride	7447-40-7
Sulfur	7704-34-9

(01)00758073060772