

# Keys to Agronomy

VOL 6

In this issue:

- Producer Spotlight
- Salts
- Post Emerg/LayBy Options
- Thank You
- Rain
- Current Research
- What's the Problem?

## PRODUCER SPOTLIGHT



### Blake Fennell Castro County

"I might just be 32, but I act like an 80 year old man!"

Whether battling the West Texas weather or constantly changing markets, Blake thrives on challenges and an opportunity to learn. According to Blake, farming in West Texas seems to be an accomplishment every year. Over the past 3-4 years, Blake has returned to a more planned, diversified, crop rotation that allows him to handle weather patterns better and secure a more long-term marketing plan. One example is growing corn silage this season instead of grain corn because of the changing markets. Blake also grows cotton, wheat, grain sorghum, and soybeans. With all of the challenges, surviving the dry years has made Blake more resilient and a better steward of the land and taught him how to make the wet years more profitable. "If farming was easy then everyone would do it and that would take out all the fun."

A 2013 graduate of Texas Tech University with a degree in Environmental Crop and Soil Science with a specialization in Crop Systems Management, Blake is a 4th generation farmer in Castro and Lamb Counties who never stops learning. He encourages young farmers to look at test plots, on-farm data research, continuing education courses, and business management courses, and improve their operation and skill set. Something new Blake will be doing this year is planting more wide-row cotton (60" and 90"). He thinks this has great potential in lower water and dryland environments. Blake has even planted the RACE trial on 60" rows this year. See the "Current Research" section of the newsletter for more information.

I loved what Blake said about educating consumers... "Agriculture is a very complex enterprise. As farmers and ranchers, we work day in and day out to make sure we provide the most safe and abundant food supply in the world. At the same time, we are also running a business just like many of our consumers may be. That is why we must keep an open line of communication with them and make our stories known to them before someone else tells our story for us."

When Blake is not farming you can catch Blake enjoying live music at the Cactus Theatre in Lubbock or the Coyote Store in Gail and attending antique tractor shows across the country.

#### Contact Me!

Got an idea, question, or  
comment?

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TEXAS A&M  
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EXTENSION

# READING A SOIL ANALYSIS

## PART 3: SALTS

Salinity is correlated to osmotic potential, which is the primary cause of plant damage and death. In other words, a saline soil contains excess soluble salts that reduce growth of most crops or ornamental plants. Salts can also interfere with clay dispersion in the soil giving soil poor physical properties. The only way to effectively reduce salts in the soil is to remove them. This can be done by leaching the salts out of the root zone or by plant update and removal.

DATE: 03/10/23

SOIL ANALYSIS REPORT

PAGE: 1

SAMPLE ID	LAB NUMBER	ORGANIC MATTER % RATE ENR lbs/A	PHOSPHORUS		POTASSIUM K ** ppm-K RATE	MAGNESIUM Mg *** ppm-Mg RATE	CALCIUM Ca *** ppm-Ca RATE	SODIUM Na *** ppm-Na RATE	pH		COMPUTED					
			P1 (Weak Bray) ppm-P RATE	P2 (Strong Bray) ppm-P RATE					SOIL pH	BUFFER INDEX	Cation Exchange C.E.C. meq/100g	PERCENT BASE SATURATION				
												K	Mg	Ca	H	Na
HOME HALF LEASE	11398	1.2L 55	23M	92VH	516VH	704VH	2469M		7.5		19.5	6.8	29.7	63.2	0.0	
	11399	0.8VL 46	55VH	119VH	634VH	585VH	2129M		7.6		17.1	9.5	28.1	62.1	0.0	
	11400	0.8VL 46	80VH	369VH	>700VH	680VH	3483M		7.8		26.0	11.3	21.5	66.9	0.0	

SAMPLE ID	NITRATE NO <sub>3</sub> *** ppm-NO3N RATE	SULFUR S *** ppm-S RATE	ZINC Zn *** ppm-Zn RATE	MANGANESE Mn *** ppm-Mn RATE	IRON Fe *** ppm-Fe RATE	COPPER Cu *** ppm-Cu RATE	BORON B *** ppm-B RATE	EFFECTIVE LINE RATE	SOLUBLE SALTS mmhos/cm RATE																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
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### In the field:

- High salt content causes the plants to compete for the water in the soil due to salts retaining the water
- Plants show symptoms of drought stress although water is present and possibly leaf tip burn
- Seedlings are more sensitive to high salts than older plants
- Crops vary in their tolerance to salt levels, therefore values must be interpreted in relation to specific crop
- A good indicator of high salt soils is a white crust on the soil surface
- Soil samples to determine salinity levels should be taken at the 0-6 inch depth
- An excess of salts can also be from excessive fertilizer application, poor irrigation water, or limited rainfall

### On the analysis:

- Total soluble salts refer to the amount of salt dissolved in the soil extract expressed in mmhos/cm
- Laboratory testing measurements can be labeled Electrical Conductivity (EC), Total Soluble Salts (TSS), Sodium Adsorption Rate (SAR), and Exchangeable Sodium Percentage (ESP)

# POST EMERGE & LAYBY WEED CONTROL OPTIONS

## 2020 Weed Control Programs for Texas High Plains Cotton Growers

2/3/2020

Delaney C. Foster, Peter A. Dotray, and J. Wayne Keeling

Sequential postemergence applications are often needed. A two-pass system is typical for most farms; including a residual herbicide in either the first or second pass as well as tank mixing different modes of action better steward new technologies and combat herbicide resistance. Two broadcast applications followed by a residual herbicide at layby will finish the season clean and prevent late emerging weeds from producing seed.

### Postemergence Herbicide Options

	Xtendflex	GlyTol/ LibertyLink	Enlist	Roundup Ready	Conventional
<b>Post Herbicides</b>	Xtendimax <sup>3</sup> or FeXapan <sup>3</sup> ● [REDACTED] acre	Liberty 43 fl oz/A <sup>1</sup>	Enlist One <sup>3</sup> 1.5-2 pints/acre	Roundup 32-44 fl oz/acre	Staple LX 2 fl oz/acre
	Engenia <sup>3</sup> 12.8 fl oz/acre	Roundup 32-44 fl oz/acre	Enlist Duo <sup>3</sup> 3.5-4.75 pints/acre		
	Liberty 43 fl oz/acre <sup>1</sup>		Liberty 43 fl oz/acre <sup>1</sup>		
	Roundup 32-44 fl oz/acre		Roundup 32-44 fl oz/acre		
	Tavium <sup>3</sup> 56.5 fl oz/acre				

### Plus...

<b>Post-Topical Residual Herbicides</b>	Dual Magnum, generic s-metolachlor	1-1.33 pints/acre
	Outlook	14-16 fl oz/acre Apply between 1 <sup>st</sup> leaf and mid-bloom stage
	Warrant	3 pints/acre
	Staple LX, generic pyriithiobac	2 fl oz/acre Apply between 4- and 8- leaf stage
	Prowl H <sub>2</sub> O, generic pendimethalin	1-2 pints/acre Apply between 4- and 8- leaf stage

### Layby/Post-Directed Residuals

Herbicide	Rate
Direx, generic diuron	0.8-1.2 quarts/acre <sup>2</sup>
Caparol, generic prometryn	1.6-3.2 pints/acre <sup>2</sup>
Roundup, generic glyphosate	32-44 fl oz/acre
Valor, generic flumioxazin	2 oz/acre
Zidua, generic pyroxasulfone	0.75-2.1 fl oz/acre <sup>2</sup> Apply between 5 leaf and early bloom stage

<sup>1</sup> Total Liberty rate per year should not exceed 72 fl oz/acre, maximum rate per application is 43 fl oz/acre.

<sup>2</sup> Rate dependent on soil type. Always consult the label prior to herbicide application.

<sup>3</sup> Check product websites or labels for approved tank mix partners.

The best treatment for weed control is preventing the weed from emergence.

However, we all know there are some weeds that outlive all control methods.

A postemergence herbicide works to control weeds after they have germinated and are actively growing. Layby herbicides are applied to clean-cultivated soil to keep the crop weed-free until harvest. It is important to control emerged weeds as they compete for water, nutrients, and sunlight from actively growing crops for profit. Keep in mind, it is advised to control the weed before it grows above 6 inches, which can happen very fast.

Another form of weed control, usually more expensive, would be the use of hand-weeding.

As always, with any herbicide product, read and follow the label directions.



# Thank You Volunteers!

AgriLife Extension volunteers are just one group of volunteers who are instrumental in carrying out the mission of the Texas A&M AgriLife Extension Service. Volunteers are involved in every aspect of the Extension Service, including determining the needs of the local producers, planning and implementing programs to address these needs, securing resources, and evaluating programs. **Thank you to all AgriLife Extension volunteers for the impact you make on the people and communities around you.**

Pictured here is the Program Area Committee (PAC) for the multi-county agronomy program. From left to right: Troy McGann (Lamb County), Jordy Rowland (Castro County), JayRay Sageser (Hale County), Kristie Keys (Agronomy Agent). Not pictured are Scott Clevenger (Castro County) and Angie Osterkamp (Castro County).

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# RAIN... IT'S STILL A THING!

I hope you have been lucky enough to capture some of the moisture that has fallen in May! The following totals are taken from the TTU Mesonet stations and are the cumulative totals for all rainfall events for May 1 through May 25:

Plainview 5.24 inches  
Olton 4.22 inches  
Abernathy 4.11 inches  
Earth 4.09 inches  
Amherst 3.87 inches  
Dimmitt 3.33 inches  
Hart 2.12 inches

Although these totals are very welcome over our drought-stricken areas, more rain is needed to officially break this drought.



## Let's Get Social!

For information, updates, good news articles, and upcoming CEU meetings between these newsletters follow me on my social media accounts!

**\*NEW\***

I have created a Twitter for my program. Find the links on the last page of the newsletter!



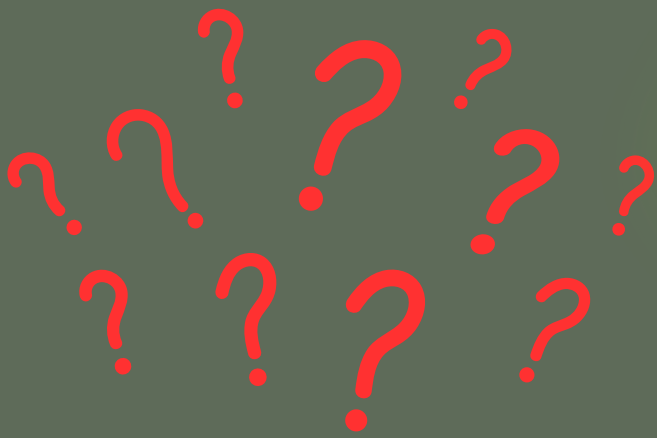
# Current Research

Currently, since this issue has gone out, I have planted 1 of my research trials for this season. Blake Fennell, Castro County producer, has graciously volunteered for us to put the RACE (replicated agronomic cotton evaluation) trial on his land just North of the Lamb County line on FM 1055. The location will have 8 varieties replicated from Americot, BASF, and Bayer. What is unique about this trial, is it is also planted on 60-inch spacing! We are looking forward to seeing how this wide-row cotton is going to perform! A huge thank you to Dr. Jourdan Bell and her team for assisting in the layout, and providing seed, and manpower to get this planted!

By the next issue, I should have planted another RACE trial in Hale County and will have some other fieldwork I am working on beginning as soon as the crop comes out of the ground! Stay tuned for more information and upcoming field days at these locations.



# WHAT'S THE PROBLEM?



Could you benefit from help with

- weeds
- irrigation timing
- cover crop & rotations
- tillage types
- growth & development
- others???

**Let me know where I can help & what programs you need. We are getting ready to plan the Lamb, Castro & Hale producer meetings.**



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<https://twitter.com/KeysToAgronomy>

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