



General Area Crop Progress

Warm dry weather in September allowed producers to finish soybean harvest, start cotton harvest, take another cutting of hay, and to work (till) fields that were overgrown due to prevented planting of a previous crops. Controlling weeds next year will be a challenge in many fields.

Fall armyworms have only been found in more drought stressed areas with less than 25% of fields sprayed for control. Finally, temperatures have cooled off and wheat planting will shortly be in full swing. There has not been a hard frost but some of the tender warm season grasses show frost injury from a recent cold front.

Cotton—The warm weather provided some excellent heat units for maturing later bolls and preparing plants for harvest with boll openers and defoliant. Earlier planted fields have been harvested and yields have been disappointing. Preparing the remaining crop for harvest will be more challenging because the weather is cooler and some fields have received abundant rainfall with regrowth. Enclosed are the results of a multi-treatment harvest aid trial conducted in Delta County. The performance of all products in this test is less than optimal for many reasons but does provide some general information on the art of using harvest aids in variable conditions and what may be the best choices for finishing this year’s crop. Twenty initial treatments were applied and three follow up treatments were compared across all initial treatments. Results and discussion follow starting on page 2.

Ag. Technology Conference December 5, 2019 at TAMU-C.

This year’s program includes 5 CEUS for Pesticide Applicators and Certified Crop Advisors. The Pesticides CEUS include Laws & Regulations, Drift Minimization, IPM, and the annual **Auxin Specific Training**.

Sessions include:

- Trade show from Sponsors starting in the morning and during the lunch hour.
- Update on Industrial Hemp Laws and Regulations-Dan Hunter Texas Department of Agriculture
- Auxin Specific Training for Application on Transgenic Tolerant Crops—Dr Scott Nolte Extension Weed Specialist Texas A&M AgriLife Extension
- Economics of Crop Production - Dr. Mark Welch, Extension Specialist, Texas A&M AgriLife Extension
- Drift minimization – Dr Scott Nolte Extension Weed Specialist Texas A&M AgriLife Extension
- Weed Identification and Control in Hay and Pastures—Dr. Case Medlin Regional Stewardship and Development Manager– Bayer
- Controlling Plant Disease in Wheat and Other Crop with IPM Practices— Dr David Drake—Texas A&M AgriLife Extension
- Crops Industry Update—Industry
- Range and Pasture Industry Update—Industry
- Afternoon break out sessions for Crops or Range and Pasture.

Programs will be mailed out shortly and pre-registrations are due November 29th.

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Cotton Harvest Aid Trial 2019 Delta County

Twenty treatments were applied with a handboom to two rows with an untreated row in between treatments. Plots were 50 feet in length and repeated 4 times in a randomized design. Plots were rated at 7, 14, 21, and 28 days after treatment (DAT). At 14 DAT, at least 2 replications of all treatments received one of 3 follow up treatments in a split plot design:

1. Ginstar 3 fl oz + Ethephon 24 fl oz + NIS
2. Gramoxone 24 fl oz + Sharpen 1.25 fl oz + MSO + Urea
3. Gramoxone 32 fl oz + NIS

Three single plots of treatment #6 were also treated with 4. Gramoxone 24 fl oz + NIS and 5. Sharpen 1.25 fl oz + MSO + Urea as a comparison to the follow up mix applications above. Results of this treatment are on page 8.

Important points in Cotton Harvest Aid Selection and Application.

Crop Condition—Depending on season and cotton variety, some crops are naturally defoliating and are easily conditioned. The trial crop had 80% open bolls and had quit growing when it received 6 inches of rain a few days before defoliation. This moisture and warm weather rejuvenated growth and at 14 days after the initial treatment it was difficult to tell it had been treated with the exception of plant that had been killed with high rates of paraquat. See the Figures below.



Figure 1. Two center rows treated with 4 fl oz of Ginstar + Ethephon & NIS, 14 DAT. Left. Two center rows treated with 32 fl oz of Gramoxone SL + NIS 14 DAT. Oct 1, 2019 near Cooper, Texas.

Weather During Conditioning—This trial receive 4 rain events and warm temperatures after treatment. The warm weather helped open bolls but also promoted regrowth. Treatments with Dropp, (Thidiazuron) had the highest defoliation ratings. It should be noted that use of Dropp works best during warm conditions. Defoliation under cooler temperatures is best achieved with the active ingredient, Thidiazuron, in a mixed product such as Ginstar.

Application— In the trial, there are not large differences between treatments and most treatments performed poorly. The performance is partially due to the application by hand with a lower sprayer pressure as well as the conditions mentioned above. It serves as a reminder that sprayer volumes above 10 gallons per acre, good coverage with flat fan nozzles and higher pressures are recommended.

Timely Application and Harvest - The final results in this trial could have been improved if the second application had been applied sooner than 14 days after the initial treatment. It is a good reminder that treatments that have low regrowth suppression need to be harvested before regrowth is significant. All plots were rated for regrowth, in the 14 DAT rating regrowth on the top (terminal) of the plant and at other nodes were scored on a 1—10 scale, 10 being heavy regrowth on all plants at all growing points. Terminal ratings for regrowth at 21 and 28 DAT were scored on the approximate percentage of plants that had green leaves at the top of the plant. Plots without any top growth received a rating of 1. The treatments with the least green leaves and least regrowth were the higher rate paraquat treatments but most of the leaves were desiccated and stuck to the plant. It is important to note that all applications were done in the evening and this timing of application usually provides better translocation of the paraquat and better kills the plant as compared to a morning or afternoon application.



Figure 2. Two center cotton rows treated with 4 fl oz of Ginstar + Ethephon & NIS, followed by 3 fl oz of Ginstar 28 days after the initial treatment (28 DAT). Left image. Two center rows treated with 32 fl oz of Gramoxone SL + NIS followed by 32 fl oz of Gramoxone SL + NIS 28 DAT. Oct 14, 2019 near Cooper, Texas.

Trial Result Tables—Can be found on pages 4-8. Treatments that were statistically different and the best ratings for that particular parameter have been highlighted. Any treatments that are highlighted are not statistically different from any of the other highlighted treatments in that column.

2019 Cotton Harvest Aid Evaluation
Lake Creek, Delta Co., TX - Dryland

Texas A&M AgriLife Extension

Established Sept 16, 2019 15 gpa, 32 psi, flat fan nozzles

Just East of CR 4624 on CR 4390

for questions contact David Drake drdrake@ag.tamu.edu or 903-468-3295 or 325-716-3364

Trt No.	Treatment Name	Rate	Rate Unit	Total Product Price/acre	7 DAT Initial Treatment			Re-growth	14 DAT			Re-growth	
					% Def	% Des	% GL		% Def	% Des	% GL	Plant	Terminal
1	Ginstar	4	fl oz/a	\$9.00	30	20	50		26.3 a	not rated	65.0	7.0 a	6.3
1	Ethephon	24	fl oz/a										
1	Non-Ionic Surfactant	0.25	% v/v										
2	Ginstar	2	fl oz/a	\$8.00	27.5	22.5	50		26.3 a		60.0	7.8	5.8
2	Dropp	2	fl oz/a										
2	Ethephon	24	fl oz/a										
2	Non-Ionic Surfactant	0.25	% v/v										
3	Ginstar	6	fl oz/a	\$11.00	32.5	17.5	50		32.5 a		60.0	7.5	5.5
3	Ethephon	24	fl oz/a										
3	Non-Ionic Surfactant	0.25	% v/v										
4	Adios	6	fl oz/a	\$10.00	28.8	19.4	51.8		26.3 a		67.5	8.5	6.8
4	Ethephon	24	fl oz/a										
4	Non-Ionic Surfactant	0.25	% v/v										
5	Dropp	2	fl oz/a	\$8.00	17.5	25	57.5		21.3		70	8.3	7.8
5	Ethephon	24	fl oz/a										
5	Non-Ionic Surfactant	0.25	% v/v										
6	ETX	1.3	fl oz/a	\$10.00	13.8	30	56.2		13.8		72.5	8	7.8
6	Ethephon	24	fl oz/a										
6	COC	0.5	% v/v										
7	Sharpen	1.25	fl oz/a	\$13.00	23.8	28.8	47.4		17.5		71.3	7.5	6.3
7	Ethephon	24	fl oz/a										
7	MSO	1	% v/v										
7	UAN	1	% v/v										
8	ETX	1.3	fl oz/a	\$12.00	15	22.5	62.5		12.5		83.8	8.8	8.5
8	Ethephon	24	fl oz/a										
8	COC	1	% v/v										
9	Display	1.6	fl oz/a	\$13.00	16.3	23.8	60		11.3		82.5	8.3	7.8
9	Ethephon	24	fl oz/a										
9	COC	1	% v/v										
10	Sharpen	0.75	fl oz/a	\$19.00	23.8	23.8	52.4		22.5		68.8	7.5	5.5
10	Finish	24	fl oz/a										
10	MSO	1	% v/v										
10	UAN	1	% v/v										
11	Sharpen	0.75	fl oz/a	\$12.00	25	22.5	52.5		21.3		67.5	7.5	6
11	Ethephon	32	fl oz/a										
11	MSO	1	% v/v										
11	UAN	1	% v/v										
12	Ethephon	24	fl oz/a	\$14.00	12.5	15	72.5		16.3		78.8	9.8 b	9.5
12	Folex	16	fl oz/a										
12	Non-Ionic Surfactant	0.25	% v/v										
13	Dropp	2	fl oz/a	\$15	27.5	22.5	50		27.5 a		66.3	8.5	5.8
13	Finish	24	fl oz/a										
13	Non-Ionic Surfactant	0.25	% v/v										
14	Gramoxone SL (2 lbs/gal)	4	fl oz/a	\$9.00	15	20	75		13.8		83.8	8.0	8.8
14	Folex	8	fl oz/a										
14	Ethephon	24	fl oz/a										
14	Non-Ionic Surfactant	0.25	% v/v										

Trt No.	Treatment Name	Rate	Rate Unit	Total Product Price/acre	7 DAT Initial Treatment			Re-growth	14 DAT			Re-growth	
					% Def	% Des	% GL		% Def	% Des	% GL	Plant	Terminal
14	Gramoxone SL (2 lbs/gal)	4	fl oz/a	\$9.00	15	20	75		13.8		83.8	8.0	8.8
14	Folex	8	fl oz/a										
14	Ethephon	24	fl oz/a										
14	Non-ionic Surfactant	0.25	% v/v										
15	Gramoxone SL (2 lbs/gal)	4	fl oz/a	\$2.00	10	22.5	77.5		7.5		85.0	8.8	9.8
15	Non-ionic Surfactant	0.25	% v/v										
16	Gramoxone SL (2 lbs/gal)	4	fl oz/a	\$5.00	5.5	14.3	80.2		8.8		85.0	8.5	9.8
16	Ethephon	24	fl oz/a										
16	Non-ionic Surfactant	0.25	% v/v										
17	Gramoxone SL (2 lbs/gal)	4	fl oz/a	\$6.00	22.5	21.3	56.3	4.5	20		67.5	7.5	6.5
17	Dropp	2	fl oz/a										
17	Ethephon	24	fl oz/a										
17	Non-ionic Surfactant	0.25	% v/v										
18	Gramoxone SL (2 lbs/gal)	24	fl oz/a	\$7.00	7.5	77.5	15	5.5	11.3		40.0	8.0	3.8
18	Non-ionic Surfactant	0.25	% v/v										
19	Gramoxone SL (2 lbs/gal)	24	fl oz/a	\$8.00	5	75	20	6.3	8.8		41.3	7.8	3.8
19	Diruon	4	fl oz/a										
19	Non-ionic Surfactant	0.25	% v/v										
20	Gramoxone SL (2 lbs/gal)	32	fl oz/a	\$9.00	5	85	10	5.5	5		25.0 a	7.8	1.8 a
20	Non-ionic Surfactant	0.25	% v/v										

Average	18.2	30.4		17.5	67.1	8.1	6.7
P>(F)	0.0001	0.0001		0.0001	0.0001	0.0468	0.0001
LSD P=0.05	6.9	9.9	NS	5.3	13.3	1.3	1.5
CV	26.6	23		21.4	14.1	11.6	15.7

Application Information	
Application Dates:	9/16/2019
Cooperator:	PPF
Variety:	PHY 480
Time:	7-8:30 pm
Temp (°F):	81° F
% RH:	67%
Wind Speed (mph) & Direction:	2 mph / 62° N
Row Spacing("):	40"
Plot width (rows)	treated 1 skip
Plot length	replicated 50 fe
% Open	80%
Plant Height (mean inches)	24-30"
Sprayer Information	Hand boom
	/ 80015 Turbo
	32 psi

Terms			
% GL: Percent of total leaves that are still green. Doesn't include regrowth			
% Stuck Lf: Percent of herbicide desiccated leaves still attached to the plant			
Note: %DEF, %DES, and % GL all sum to 100			
Regrowth: Rating from 1-10 of the leaves that have grown from all nodes in response to defoliation treatments. 1=none 10=large leaves at all nodes			
For more information see			
http://sanangelo.tamu.edu/extension/agronomy/crop-information/			
http://lubbock.tamu.edu/files/2015/09/2015_Harvest_Aid_Guide.pdf			
http://www.cdms.net/Label-Database			
Daily Temperatures			
Date	Low	High	GDD 60 Rain (in)
Totals from first application			
AUG 27-31 6.18"			
9/16/2019	70	96	23.0
9/17/2019	70	95	22.5
9/18/2019	71	94	22.5
9/19/2019	71	85	18.0 0.53
9/20/2019	72	83	17.5 0.94
9/21/2019	73	89	21.0
9/22/2019	74	89	21.5
9/23/2019	74	89	21.5
9/24/2019	74	92	23.0
9/25/2019	73	93	23.0 0.39
9/26/2019	71	91	21.0
9/27/2019	72	90	21.0
9/28/2019	74	92	23.0
9/29/2019	70	92	21.0
	total	299.5	1.86

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Trt No.	Treatment Name	Rate	Rate Unit	28 DAT Initial Treatment followed by 3 fl oz Ginstar @ 14 DAT				28 DAT Initial Treatment followed by 32 fl oz Gramoxone @14 DAT				28 DAT Initial Treatment followed by 24 fl oz Gramoxone + 1.25 fl oz Sharpen @ 14 DAT			
				% Def	% Des	% GL	Terminal Regrowth	% Def	% Des	% GL	Terminal I	% Def	% Des	% GL	Terminal Regrowth
1	Ginstar	4	fl oz/a												
1	Ethephon	24	fl oz/a	37.5	22.5	40	3.3	37.5	25	37.5	1	37.5	32.5	30	1.5
1	Non-Ionic Surfactant	0.25	% v/v												
2	Ginstar	2	fl oz/a												
2	Dropp	2	fl oz/a	43.8	17.5	38.3	2.8	30	32.5	37.5	1	47.5	30	22.5	1
2	Ethephon	24	fl oz/a												
2	Non-Ionic Surfactant	0.25	% v/v												
3	Ginstar	6	fl oz/a												
3	Ethephon	24	fl oz/a	38.8	21.3	40	2.5	37.5	30	32.5	1.5	42.5	30	27.5	1
3	Non-Ionic Surfactant	0.25	% v/v												
4	Adios	6	fl oz/a												
4	Ethephon	24	fl oz/a	37.5	22.5	40	2.8	35	37.5	27.5	1	32.5	37.5	25	1
4	Non-Ionic Surfactant	0.25	% v/v												
5	Dropp	2	fl oz/a												
5	Ethephon	24	fl oz/a	45	18.8	36.3	2.5	42.5	27.5	30	1	37.5	32.5	30	1.5
5	Non-Ionic Surfactant	0.25	% v/v												
6	ETX	1.3	fl oz/a	plots used for different treatments											
6	Ethephon	24	fl oz/a												
6	COC	0.5	% v/v												
7	Sharpen	1.25	fl oz/a												
7	Ethephon	24	fl oz/a	22.5	20	57.5	2.8	25	30	45	1.5	27.5	35	37.5	1
7	MSO	1	% v/v												
7	UAN	1	% v/v												
8	ETX	1.3	fl oz/a												
8	Ethephon	24	fl oz/a	30.7	20	49.9	3.8	23.3	36.7	40	1	25	35	40	1.7
8	COC	1	% v/v												
9	Display	1.6	fl oz/a												
9	Ethephon	24	fl oz/a	17.5	20	62.5	3.3	27.5	40	32.5	1	22.5	32.5	45	2
9	COC	1	% v/v												
10	Sharpen	0.75	fl oz/a												
10	Finish	24	fl oz/a	26.3	20	53.8	3	32.5	30	37.5	2	40	30	32.5	1
10	MSO	1	% v/v												
10	UAN	1	% v/v												
11	Sharpen	0.75	fl oz/a												
11	Ethephon	32	fl oz/a	33.8	26.3	40	3.3	40	32.5	27.5	2	35	35	30	1.5
11	MSO	1	% v/v												
11	UAN	1	% v/v												
12	Ethephon	24	fl oz/a												
12	Folex	16	fl oz/a	33.8	20	46.3	3.8	32.5	35	32.5	1.5	22.5	37.5	40	1.5
12	Non-Ionic Surfactant	0.25	% v/v												
13	Dropp	2	fl oz/a												
13	Finish	24	fl oz/a	43.8	17.5	38.8	2.8	50	30	22.5	1	32.5	27.5	40	1.5
13	Non-Ionic Surfactant	0.25	% v/v												
14	Gramoxone SL (2 lbs/gal)	4	fl oz/a												
14	Folex	8	fl oz/a	40	12.5	47.5	4.8	35	35	30	2	35	37.5	30	2
14	Ethephon	24	fl oz/a												
14	Non-Ionic Surfactant	0.25	% v/v												
15	Gramoxone SL (2 lbs/gal)	4	fl oz/a												
15	Non-Ionic Surfactant	0.25	% v/v	42.5	20	37.5	4.8	37.5	32.5	30.0	2	20	50	30	2.5

Trt No.	Treatment Name	Rate	Rate Unit	28 DAT Initial Treatment followed by 3 fl oz Ginstar @ 14 DAT				28 DAT Initial Treatment followed by 32 fl oz Gramoxone @14 DAT				28 DAT Initial Treatment followed by 24 fl oz Gramoxone + 1.25 fl oz Sharpen @ 14 DAT			
				% Def	% Des	% GL	Terminal Regrowth	% Def	% Des	% GL	Terminal	% Def	% Des	% GL	Terminal Regrowth
15	Gramoxone SL (2 lbs/gal)	4	fl oz/a	42.5	20	37.5	4.8	37.5	32.5	30.0	2	20	50	30	2.5
15	Non-Ionic Surfactant	0.25	% v/v												
16	Gramoxone SL (2 lbs/gal)	4	fl oz/a												
16	Ethephon	24	fl oz/a	37.5	20	42.5	4.3	27.5	37.5	35.0	2	25	45	30	1.5
16	Non-Ionic Surfactant	0.25	% v/v												
17	Gramoxone SL (2 lbs/gal)	4	fl oz/a												
17	Dropp	2	fl oz/a	40	20	40	3	27.5	45	27.5	1.5	30	35	35	1
17	Ethephon	24	fl oz/a												
17	Non-Ionic Surfactant	0.25	% v/v												
18	Gramoxone SL (2 lbs/gal)	24	fl oz/a	10	61.3	28.8	2	7.5	77.5	15.0	1	7.5	70	22.5	1
18	Non-Ionic Surfactant	0.25	% v/v												
19	Gramoxone SL (2 lbs/gal)	24	fl oz/a	7.5	62.5	30	1.5	5	75	20.0	1	7.5	67.5	25	1
19	Diruon	4	fl oz/a												
19	Non-Ionic Surfactant	0.25	% v/v												
20	Gramoxone SL (2 lbs/gal)	32	fl oz/a	5	71.3	23.8	1.8	5	80	15.0	1	5	75	20	1
20	Non-Ionic Surfactant	0.25	% v/v												
			Average	31.22	27	41.8	3.1	29.4	40.5	30.3	1.4	28	40.8	31.2	1.4
			P>(F)	0.0001	0.0001	0.0001	0.0011	0.002	0.0001	0.018	0.156	0.0003	0.0001	0.0121	0.0255
			LSD P=0.05	11.8	12.6	12.3	1.48	17.9	14.2	14.3	NS	15	12.1	11.8	0.81
			CV	26.6	32.9	20.7	34.1	35.4	20.5	27.6	43.3	31.3	17.3	22.05	34.5
Application Information				Terms											
Application Dates:		9/16/2019		% GL: Percent of total leaves that are still green. At 28 DAT it will include regrowth											
		10/1/2019		% Stuck Lf: Percent of herbicide desiccated leaves still attached to the plant											
Cooperator:		PPF		Note: %DEF, %DES, and % GL all sum to 100											
				Terminal Regrowth: Rating from 1-10 of the leaves that have grown from their terminal											
				1=none 10=large leaves at all nodes											
Variety:		PHY 480		For more information see											
Time:		7-8:30 pm		http://sanangelo.tamu.edu/extension/agronomy/crop-information/											
Temp (°F):		81° F		http://lubbock.tamu.edu/files/2015/09/2015_Harvest_Aid_Guide.pdf											
% RH:		67%		http://www.cdms.net/Label-Database											
Wind Speed (mph) & Direction:		0-2 mph / 62° NE													
Row Spacing("):		38"													
Plot width (rows)		2 treated 1 border													
Plot length		Replicated 50 feet													
% Open		80%													
Plant Height (mean inches)		24-30"													
Sprayer Information		Hand boom													
		80015 Turbo													
		32 psi													

2019 Cotton Harvest Aid Evaluation

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Trt No.	Treatment Name	Rate	Rate Unit	Total Product Price/acre	21 DAT Initial Treatment 7 DAT Follow-up Application			Re-growth terminal	28 DAT Initial Treatment 14 DAT Follow-up Application			Re-growth Terminal
					% Def	% Des	% GL		% Def	% Des	% GL	
1	Ginstar	3	fl oz/a	\$8.00	19.3	13	66.9	5.7	29.4	18	52.5	3.7
1	Ethephon	24	fl oz/a									
1	Non-Ionic Surfactant	0.25	% v/v									
2	Sharpen	1.25	fl oz/a	\$11.00	17.5	38.8	43.8	1.5	23.8	33.8	42.5	1.8
2	MSO	1	% v/v									
2	UAN	1	% v/v									
3	Sharpen	1.25	fl oz/a	\$14.00	14.8	53	38.7	1.5	25.8	38	36.2	1.4
3	Gramoxone	24	fl oz/a									
3	MSO	1	% v/v									
3	UAN	1	% v/v									
4	Gramoxone SL (2 lbs/gal)	24	fl oz/a	\$7.00	28.7	31.1	41.7	3	9.6	41.7	48.7	2.5
4	Non-Ionic Surfactant	0.25	% v/v									
5	Gramoxone SL (2 lbs/gal)	32	fl oz/a	\$9.00	32	36.1	33.4	2.4	22.9	35	42.1	1.1
5	Non-Ionic Surfactant	0.25	% v/v									
Average					22.5	34.4	44.9	2.83	22.9	33.3	44.4	2.1
P>(F)					0.69	0.044	0.263	0.004	0.0435	0.0119	0.2013	0.0175
LSD P=0.05					NS	23.5	NS	1.8	12.2	11.5	NS	1.4
CV					87.9	41.8	45.3	39.8	33.6	21.2	20.7	40.8

Daily Temperatures

Date	Low	High	GDD 6(Rain (in
Totals from first application				
AUG 27-31 6.18				
9/16	70	96	23.0	
9/17	70	95	22.5	
9/18	71	94	22.5	
9/19	71	85	18.0	0.53
9/20	72	83	17.5	0.94
9/21	73	89	21.0	
9/22	74	89	21.5	
9/23	74	89	21.5	
9/24	74	92	23.0	
9/25	73	93	23.0	0.39
9/26	71	91	21.0	
9/27	72	90	21.0	
9/28	74	92	23.0	
9/29	70	92	21.0	
		total	299.5	1.86
9/30	70	92	21.0	
10/1	71	92	21.5	
10/2	70	94	22.0	
10/3	69	94	21.5	
10/4	64	86	15.0	
10/5	65	91	18.0	
10/6	60	94	17.0	0.19
10/7	50	77	3.5	
10/8	50	78	4.0	
10/9	53	84	8.5	
10/10	46	89	7.5	0.86
10/11	34	61	0.0	0.47
10/12	35	66	0.0	
10/13	50	74	2.0	
10/14	56	73	4.5	0.12
10/15	63	83	13.0	0.11
		total	478.5	3.61

David R. Drake,
Integrated Pest Management (IPM)



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Calendar

October 29 NorthTexas Ag Networking Night—McKinney
October 30 Dairy Program—Sulphur Springs
November 13 TAMUC College of Ag. & Nat. Res. Networking Night—Commerce
November 15 Collin Co. Range and Pasture Workshop-McKinney
November 21 Pesticide Applicator CEU Training—Rockwall
December 5 Ag. Technology Conference-Commerce
December 9 Pesticide Applicator CEU Training-Paris
December 10-11 Texas Plant Protection Conference—Bryan
January 8-10, 2020 Beltwide Cotton Conference-Austin
January 14, 2020 BIG Conference-Waco
