

GRAIN SORGHUM WEED CONTROL: START CLEAN, STAY CLEAN

Sarah Lancaster
Assistant Professor and Extension Specialist

K·STATE
Research and Extension

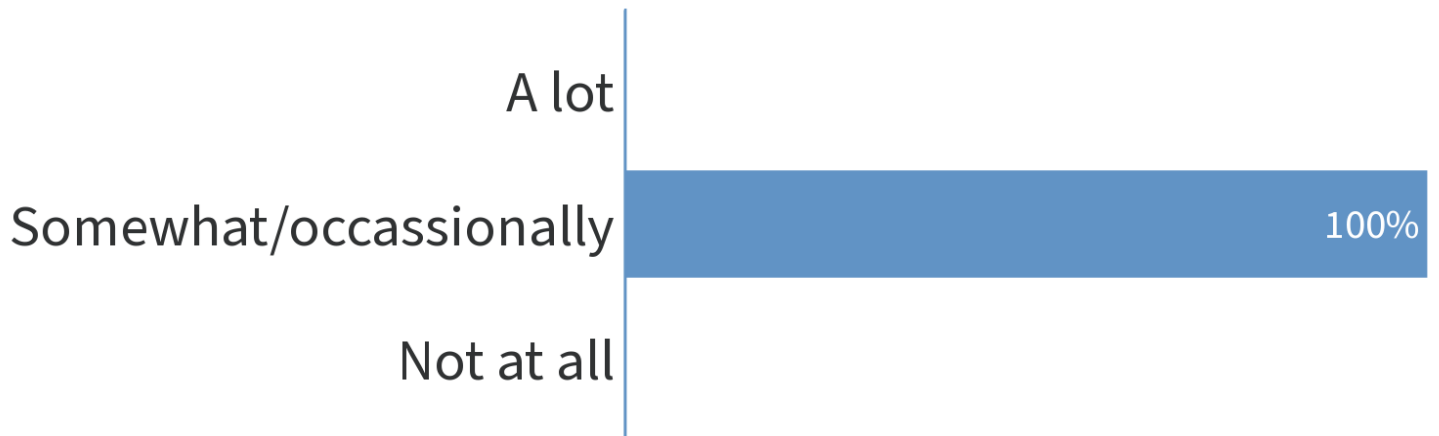
Some key weed species



When poll is active, respond at Pollev.com/sarahlancast648

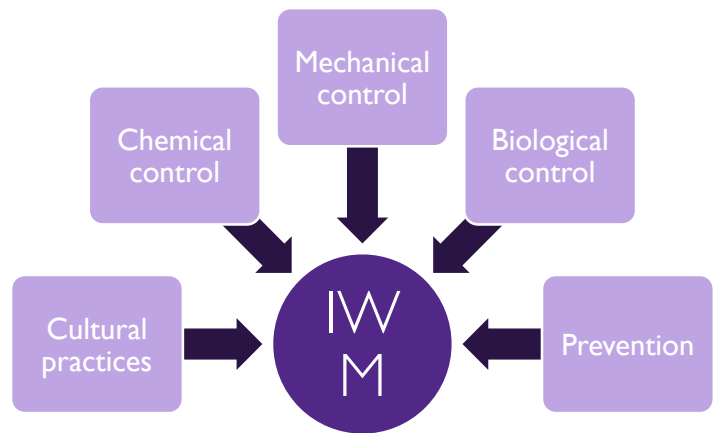
Text **SARHLANCAST648** to **37607** once to join

To what extent have limitations in weed management led you to avoid growing grain sorghum?



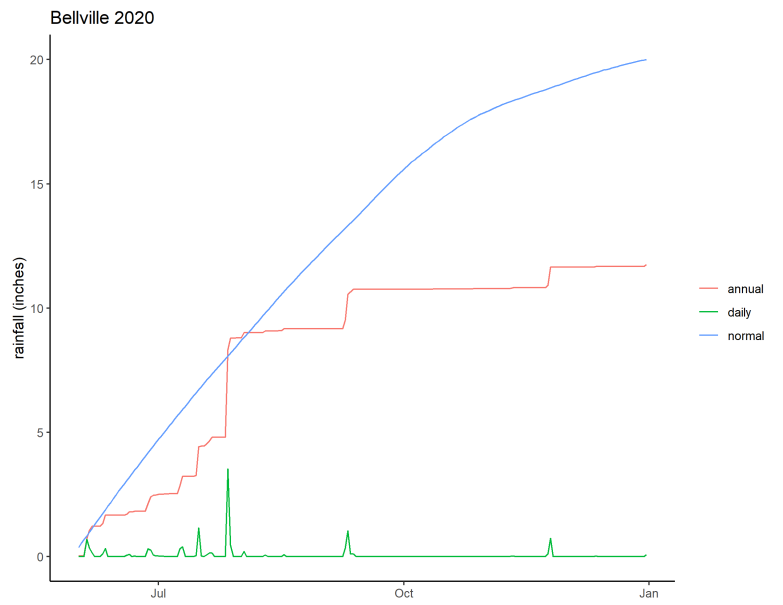
Back to the basics

- Use integrated practices
- Make timely applications



Potential carryover

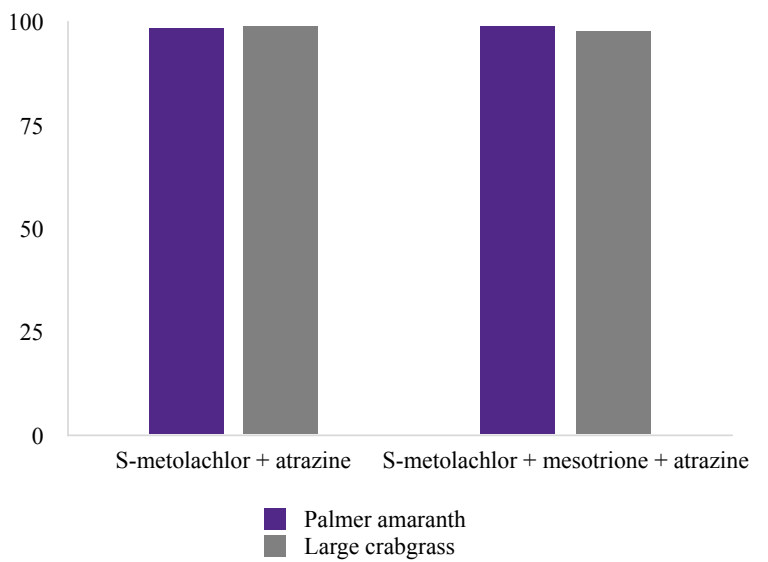
- Accent
- Python
- Varro
- Classic
- FirstRate
- Pursuit
- Reflex
- Raptor
- Scepter



Rainfall data from KS Mesonet

Start clean

- Burndown or tillage
- Atrazine
- Group 15
- Group 27 + atrazine



Start clean

Herbicide		SOA group	Activation
Atrazine	Aatrex 4L	5	NA
Acetochlor	Harness	15	1/4-3/4"
S-metolachlor	Dual II Magnum	15	1/2-1"
Dimethenamid-P	Outlook	15	NA
Mesotrione	Callisto	27	1/4"

Stay clean

Active ingredient	Trade name	Sorghum Timing	Palmer timing	Comments
2,4-D	several	5-15"	"small"	later application with drop nozzles, injury
Atrazine	several	<12"	1.5"	> 6" in western KS
Bromoxynil	several	3 lf – boot	2"	
Dicamba	several	V3 – 12"	3"	
Fluroxypyr	Starane Ultra, others	3 lf – 7 lf	NA	later application with drop nozzles
Quinclorac	Facet, others	12"	NA	
Fluroxypyr + bromoxynil	Starane NXT, others	V4 – V7/8	NA	later application with drop nozzles
Pyrasulfotole + bromoxynil	Huskie	3 lf – 30"	4"	
Acetochlor	Warrant	11"	NA	safened seed
Dimethenamid –P	Outlook	12"	NA	safened seed
S-Metolachlor	Several	75 d PHI	NA	safened seed

What herbicides are you planning for your grain sorghum acres in 2021?

Herbicide-resistant grain sorghum

- **Inzen**

- Corteva
- Zest herbicide (nicosulfuron)
 - POST
- Some varieties available in 2021

- ADVANTA/UPL
- Imiflex herbicide (imazamox)
 - PRE or POST
- Launch in 2021

- First Act herbicide (quizalofop)
- Pilot launch in 2021
- Waiting for Canadian export approval

- **iGrowth**

- **Double Team**

- Sorghum Partners/ADAMA

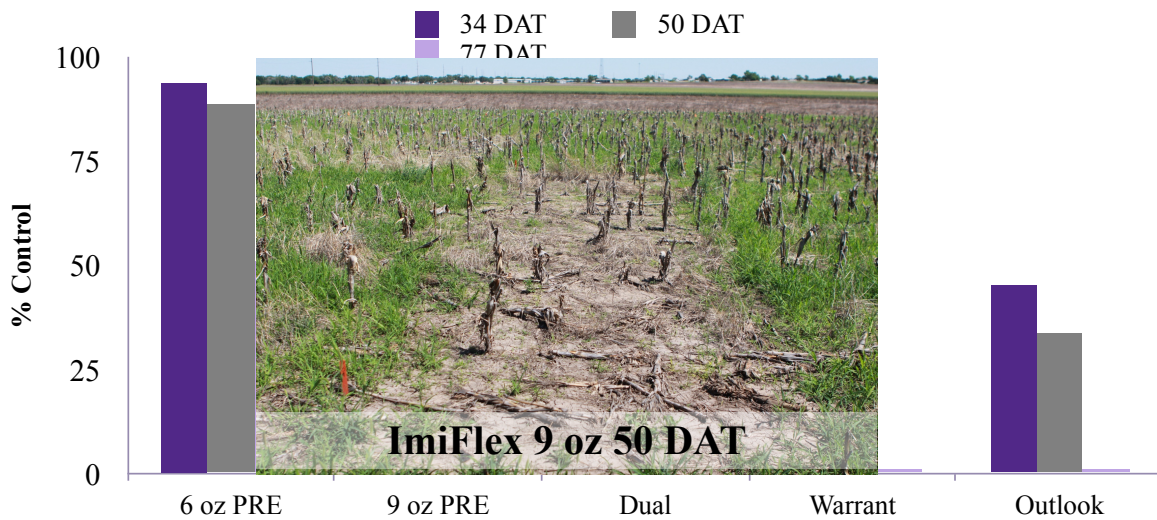


2020 Trials

- Fallow fields
- PRE:
 - Imazamox (Imiflex) vs Group 15 herbicides
- POST:
 - Imazamox (Imiflex), nicosulfuron (Zest) and quizalofop
 - 2 rates
 - 2 growth stages

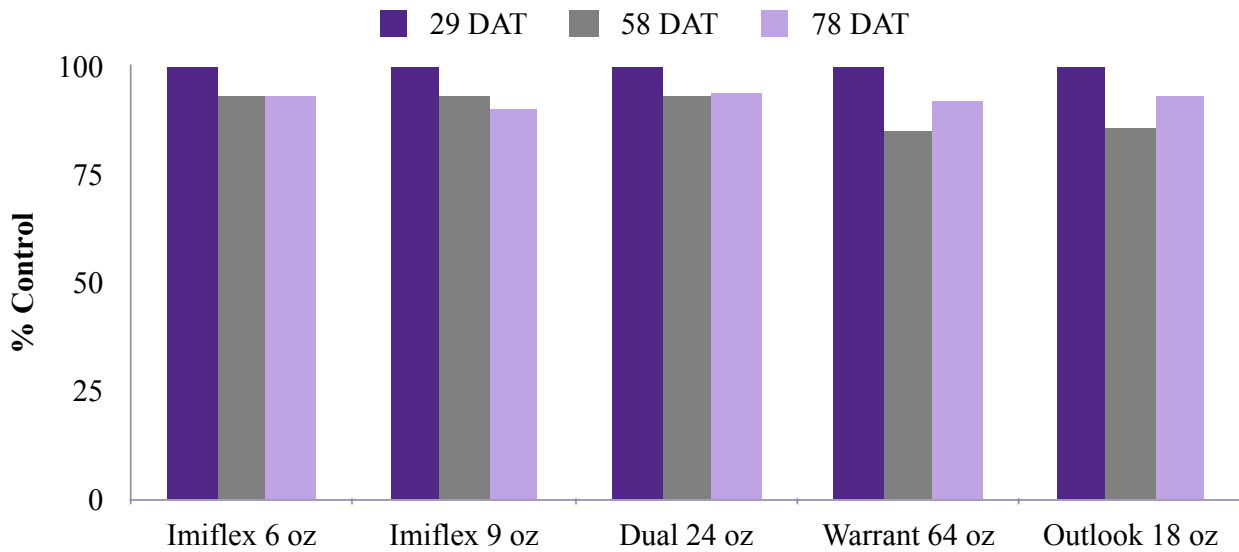


Green foxtail control PRE - Hays





Large crabgrass control PRE – Garden City



Pat Geier, Randall Currie, Brent Bean

Garden City -28 DAT



Nontreated



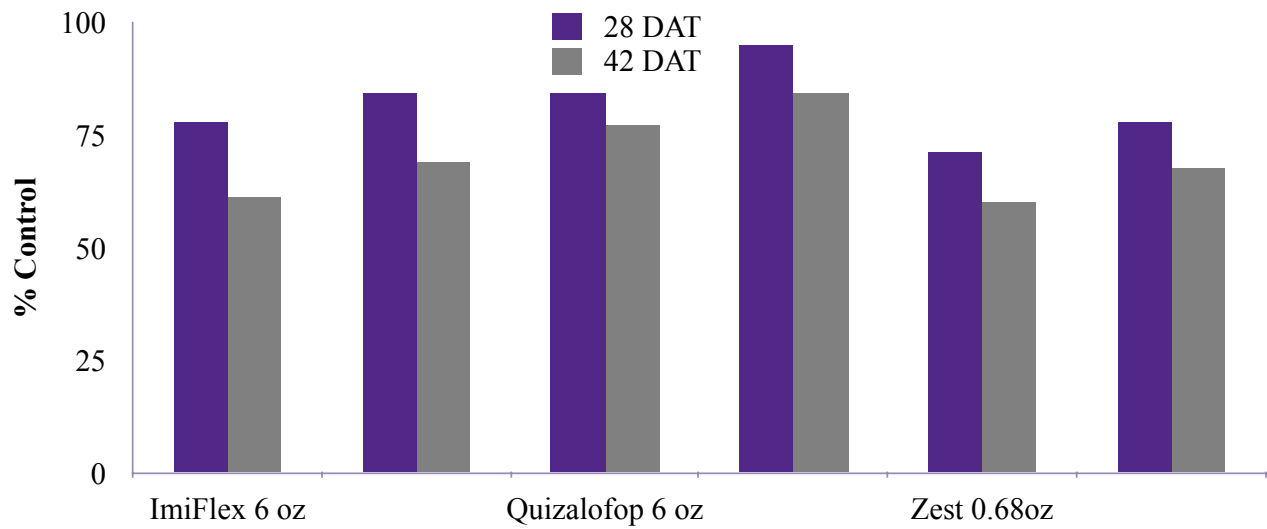
Imiflex 6 oz



Warrant 64 oz



Green foxtail control EPOST - Hays



Hays –28 DAT



Imiflex 9 oz



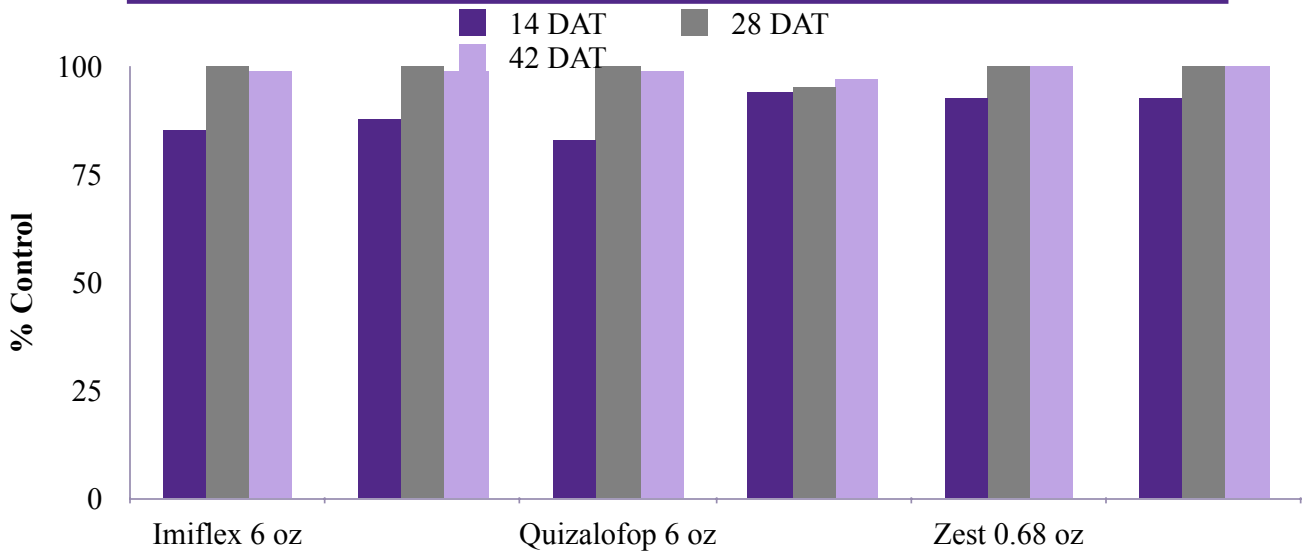
Quizalofop 10 oz



Zest 1.02 oz

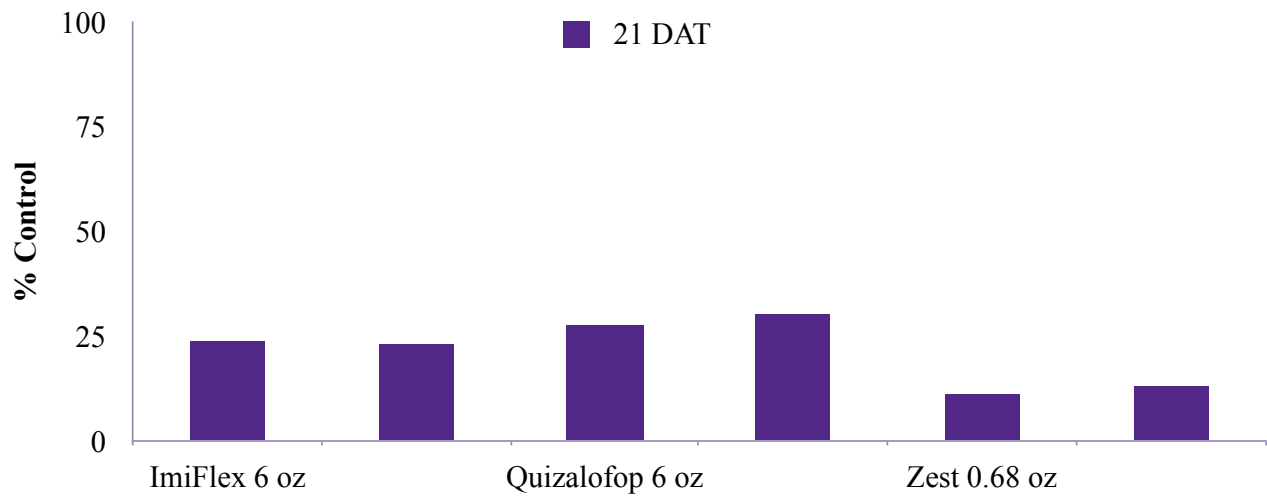


Large crabgrass control EPOST – Garden City



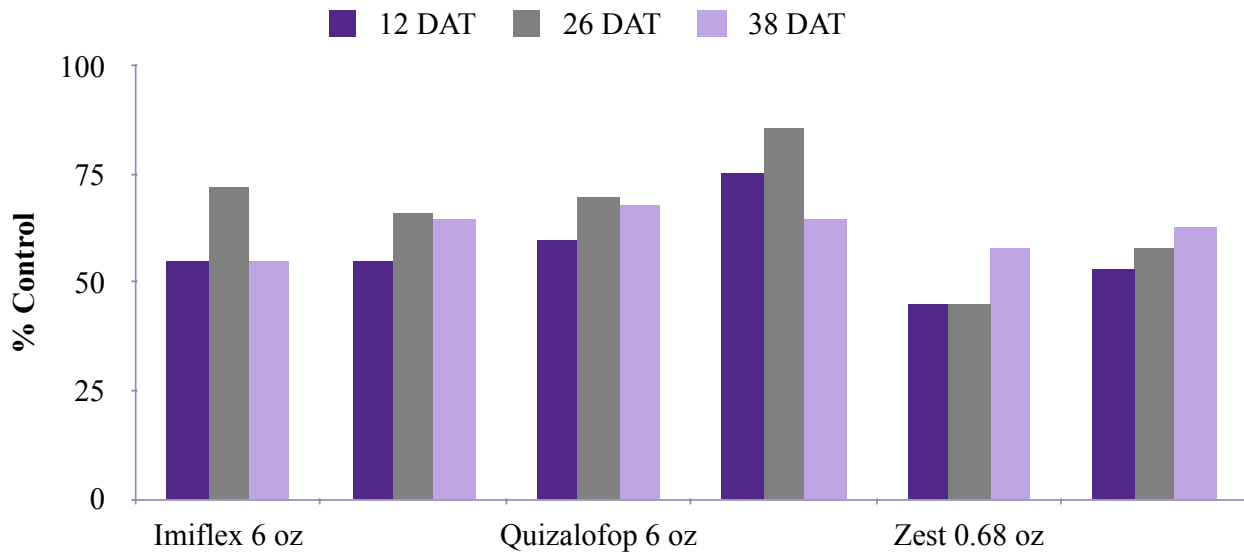


Green foxtail control LPOST - Hays





Large crabgrass control LPOST – Garden City



Pat Geier, Randall Currie, Brent Bean

Rotational Restrictions

Product	Corn (Field)	Soybeans	Wheat (winter)	Cotton	Canola	Sorghum	Sunflower
Zest	--	15 d	4 mos	10 mos	10-18 mos	18 mos	10-18 mos
IMIFLEX	8.5 mos*	--	3 mos*	9 mos	18-26 mos*	18 mos	9 mos*
Quizalofop	120 d**	--	120 d	--	--	120 d	--

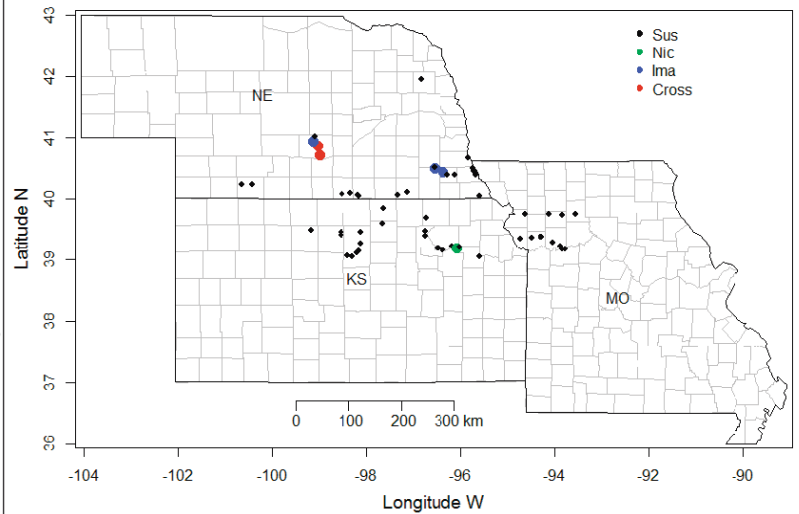
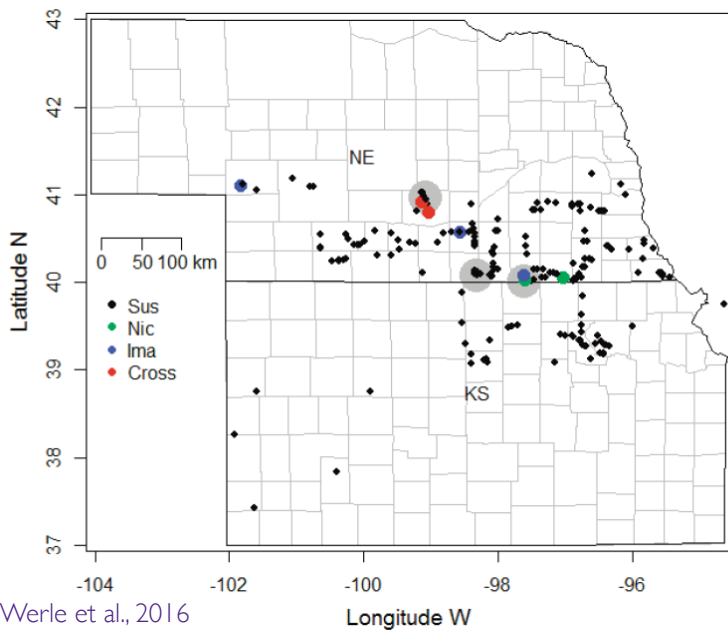
*Except Clearfield hybrids/varieties

**Except Enlist hybrids

Stewardship

- Manage to slow the development of herbicide resistant weeds
 - One (IMIFLEX) or two (Zest) applications per year
 - Do not plant sorghum in the same field two consecutive years
 - Do not plant where ALS-resistant shattercane or johnsongrass occur
- Avoid outcrossing to shattercane and johnsongrass
 - Control escapes and grass along field edges
 - Ensure shattercane and johnsongrass are not flowering same time as sorghum

ALS-resistance in shattercane (L) and johnsongrass (R)



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Which of the herbicide-resistant grain sorghum traits is of most interest to you?

DoubleTeam

igrowth

Inzen

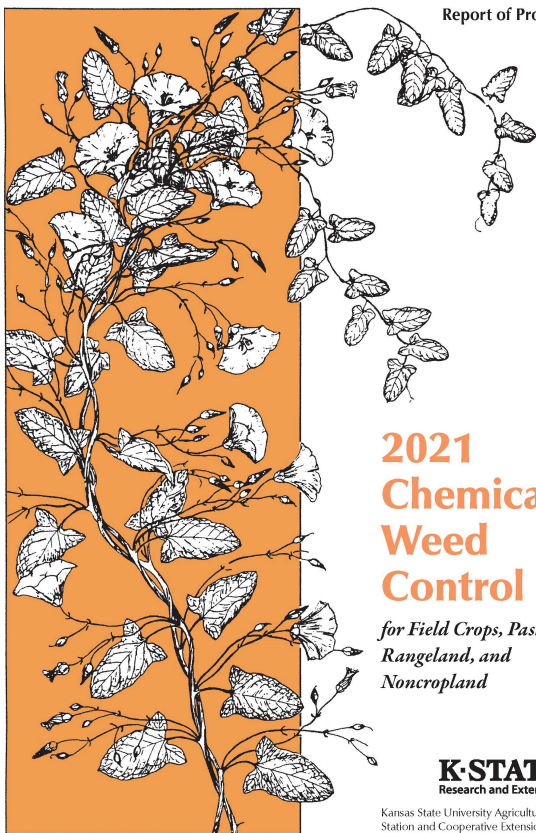
None - conventional is fine

None - I don't grow grain sorghum

Atrazine registration review

- Interim decision released Sept 2020
- Two more assessments
 - Endangered species assessment (deadline 9/28/21)
 - Endocrine disruptor screening
- Changes most likely to affect Kansas farmers
 - 15 MPH weed speed restriction
 - 5-foot buffer from edge of streams/rivers and endangered species habitat
 - Medium-sized droplets or larger

Report of Progress 1162



2021 Chemical Weed Control

*for Field Crops, Pastures,
Rangeland, and
Noncropland*

K-STATE
Research and Extension

Kansas State University Agricultural Experiment
Station and Cooperative Extension Service


WAR


AGAINST
WEEDS


SILVER BULLETS ARE FOR **WEREWOLVES**



Sarah Lancaster

 slancaster@ksu.edu

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