

MANAGING REDBANDED STINK BUGS (RBSB) IN LOUISIANA

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Sebe Brown
LSU AgCenter
Macon Ridge Research Station
Winnsboro, LA



RBSB FEEDING INDUCED SEED INJURY

- RBSB probe significantly deeper (2.0 mm vs 1.2 mm SGSB)
- RBSB length of feeding (102.7 min vs 133.3 min in SGSB)
- RBSB have more destructive saliva
- Saliva spreads and damages tissues 3.5 mm away

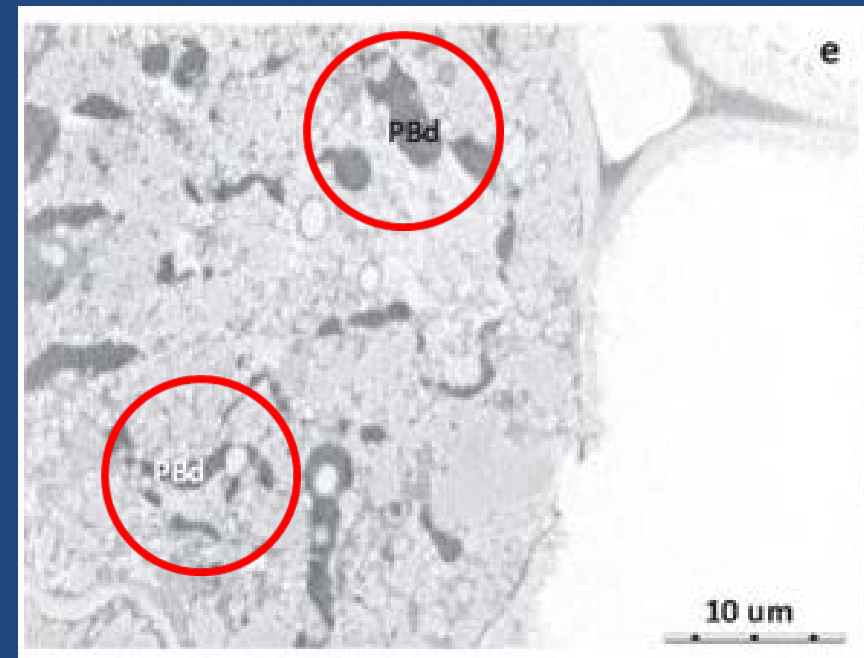
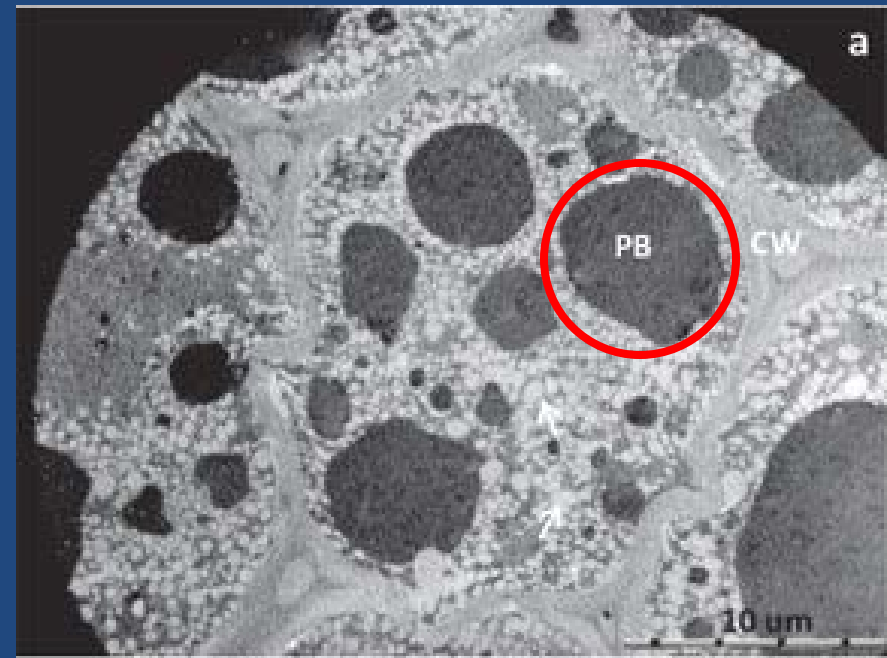
SOYBEAN POD INJURED BY RBSB



CELLULAR INJURY CAUSED BY RBSB

Non-damaged seed

RBSB damaged seed



CHEMICAL DISSOLUTION OF SEED TISSUES IS THE PRIMARY CAUSE OF DAMAGE

RBSB FEED ON STEM AND LEAF TISSUES

- Feed exclusively on xylem
- Sap ingestion is likely for water regulation
- Common in other true bugs (aphids)
- May contribute to green bean syndrome
- May explain RBSB on V and early R stage beans

REDBANDED STINK BUG MANAGEMENT

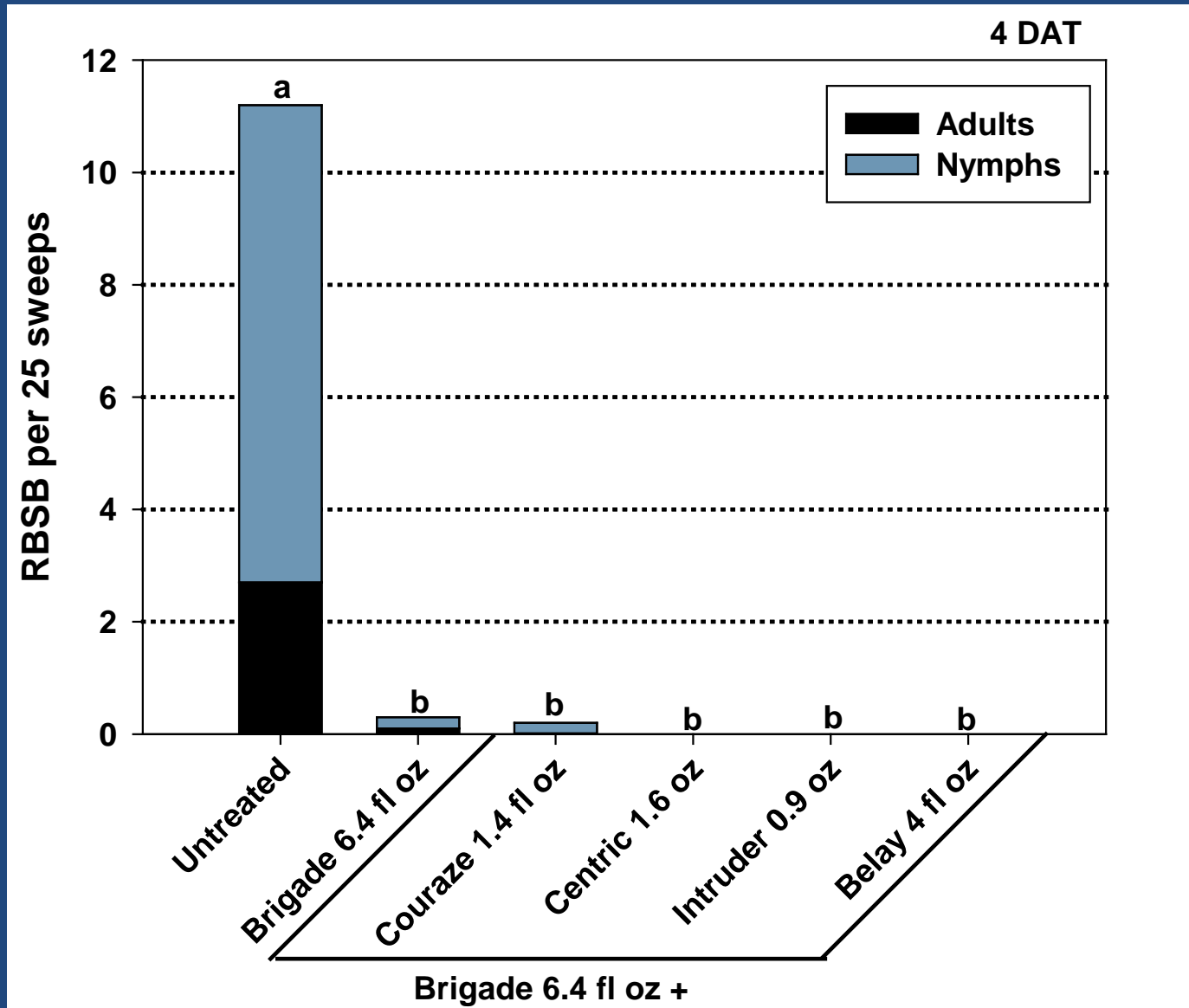
Soybeans

Insect	Insecticide	Amount of concentrate/ac	lb ai/ac	ac treated/gal or lb	When to Treat (Economic threshold)
Redbanded stinkbug ⁴	Orthene (Acephate)	12.0 – 16.0 oz	0.75- 1.0	1.3 – 1	16 bugs in 100 sweeps
	Endigo ZC	4.0 - 4.5 oz		32 – 28.4	
	Brigade (2)	6.4 oz	0.1	20	
	Hero (1.24)	10.3 oz	0.1	12.4	
	Leverage 360	2.8 oz		45.7	
	Belay	4.0 oz	0.067	32	

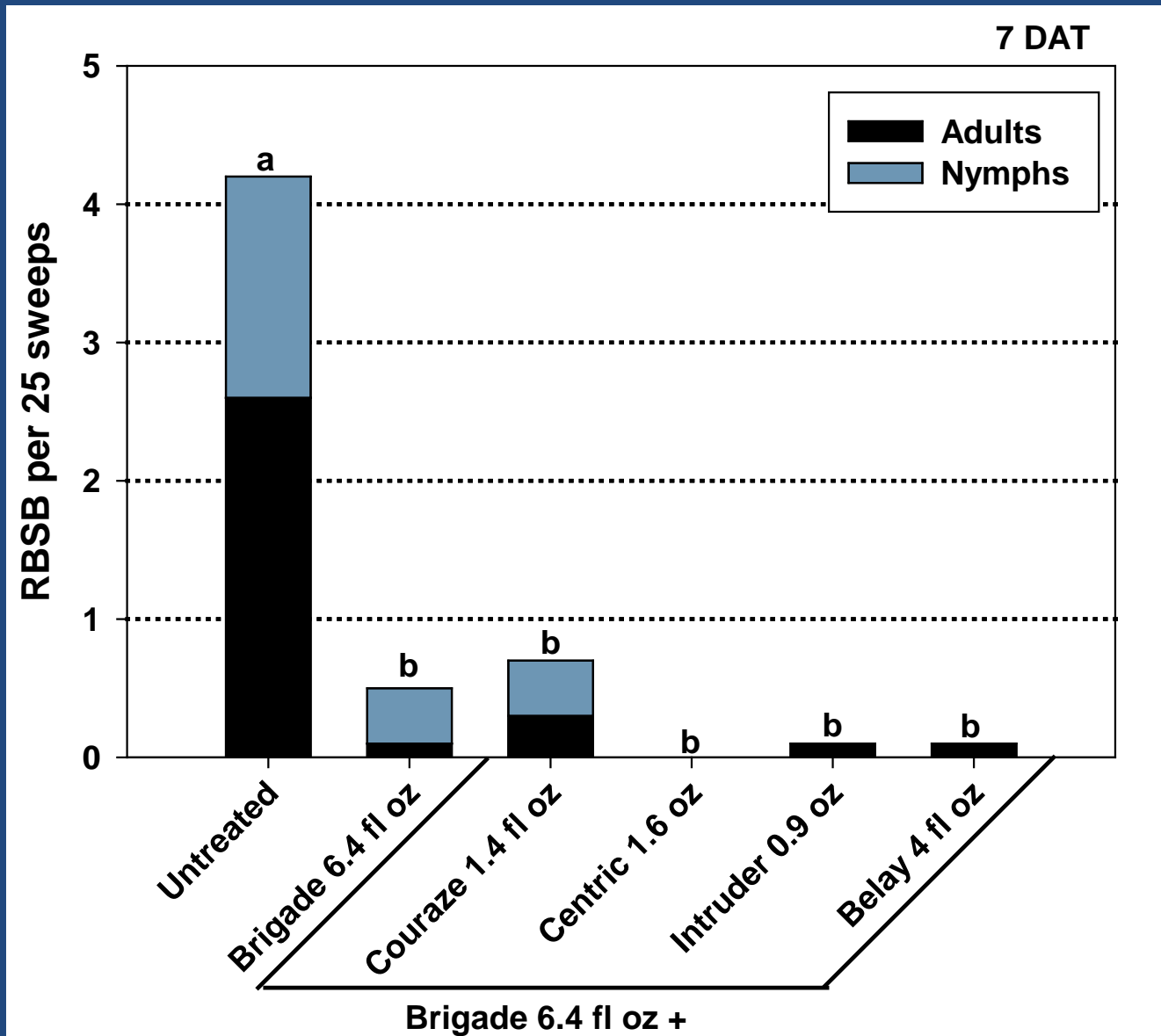
- Producers budget 3 - 5 applications
- Sprays on 5 – 7 day intervals
- Prevent colonization if possible
- Cold weather



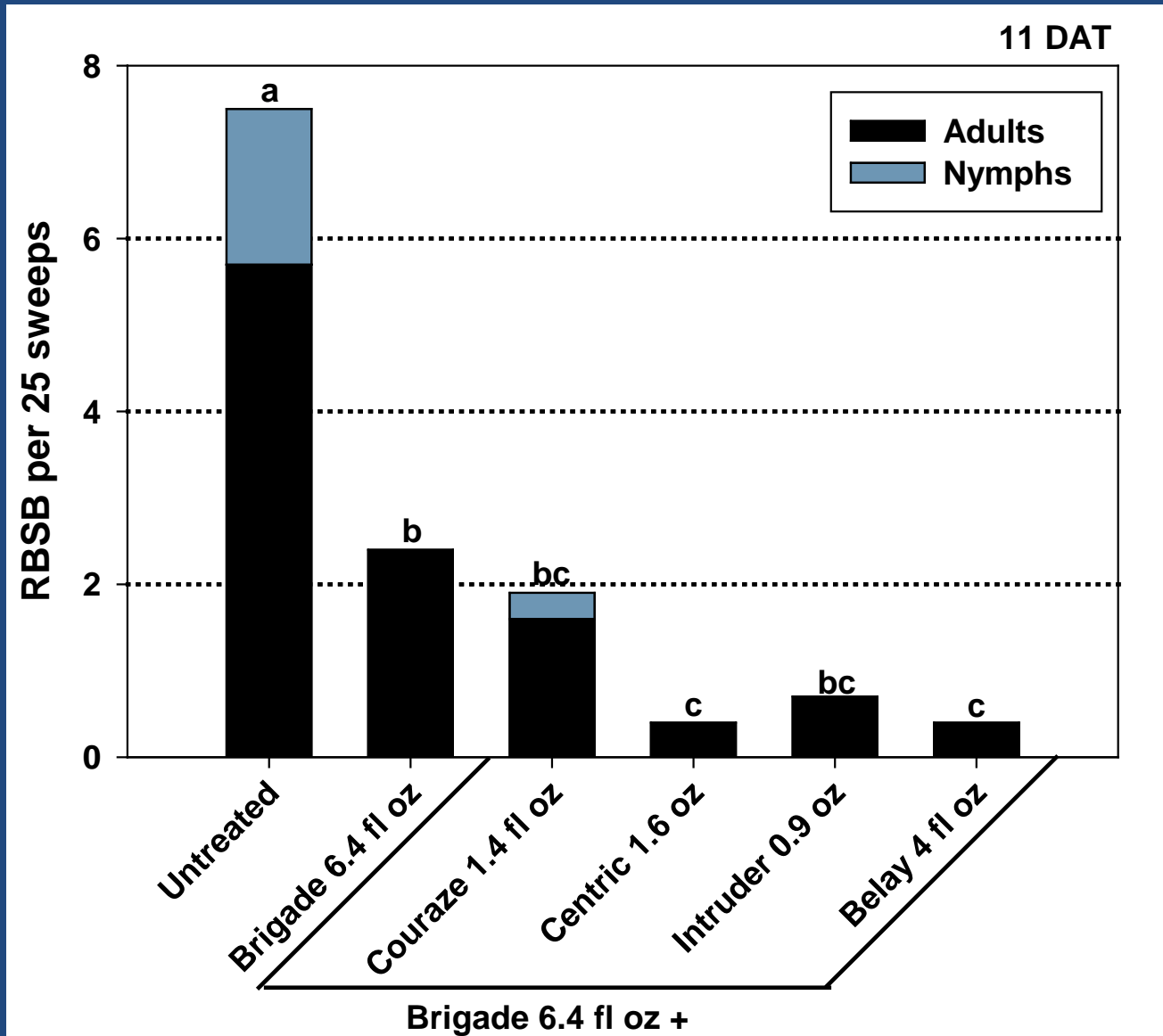
BENEFIT OF NEONIC PYRETHROID MIXES FOR STINK BUG MANAGEMENT



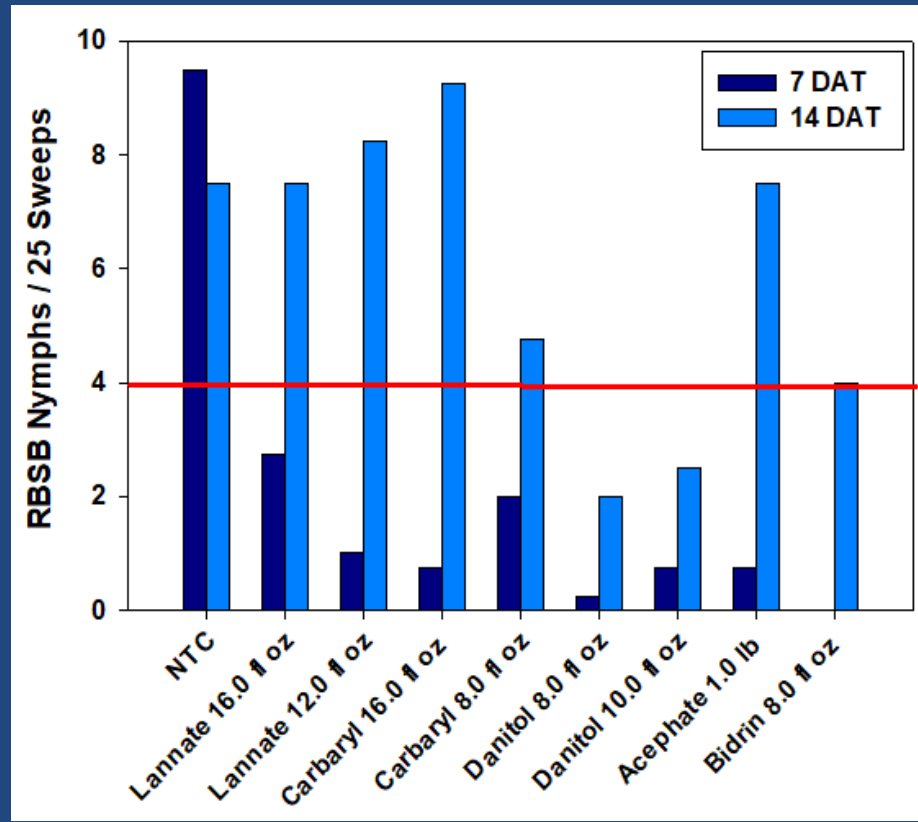
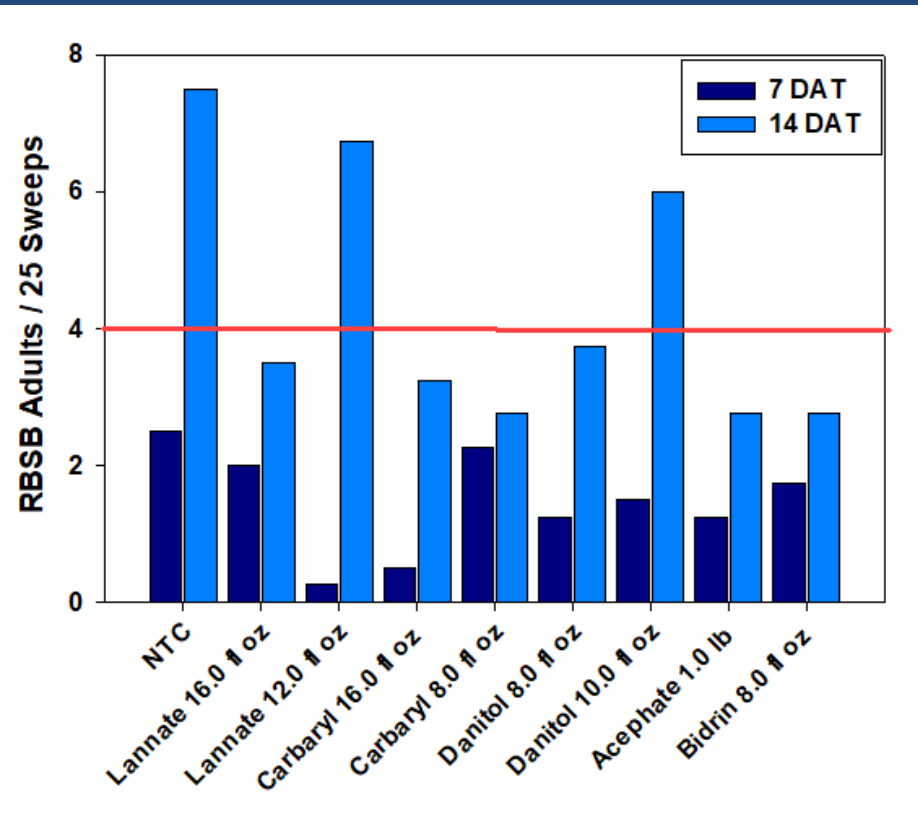
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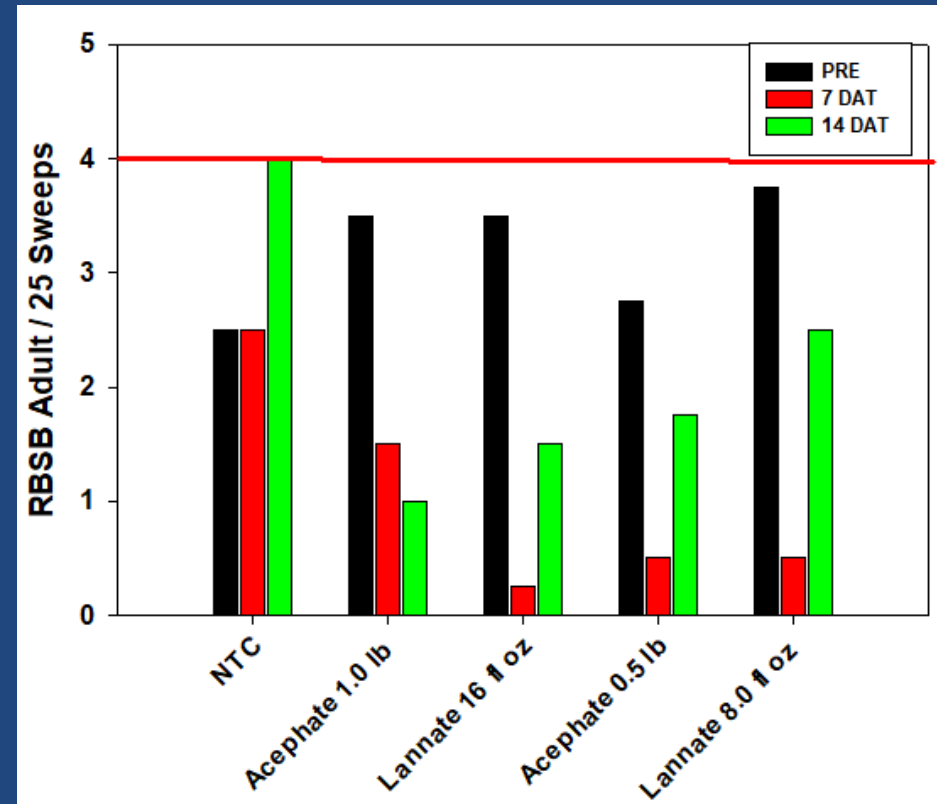
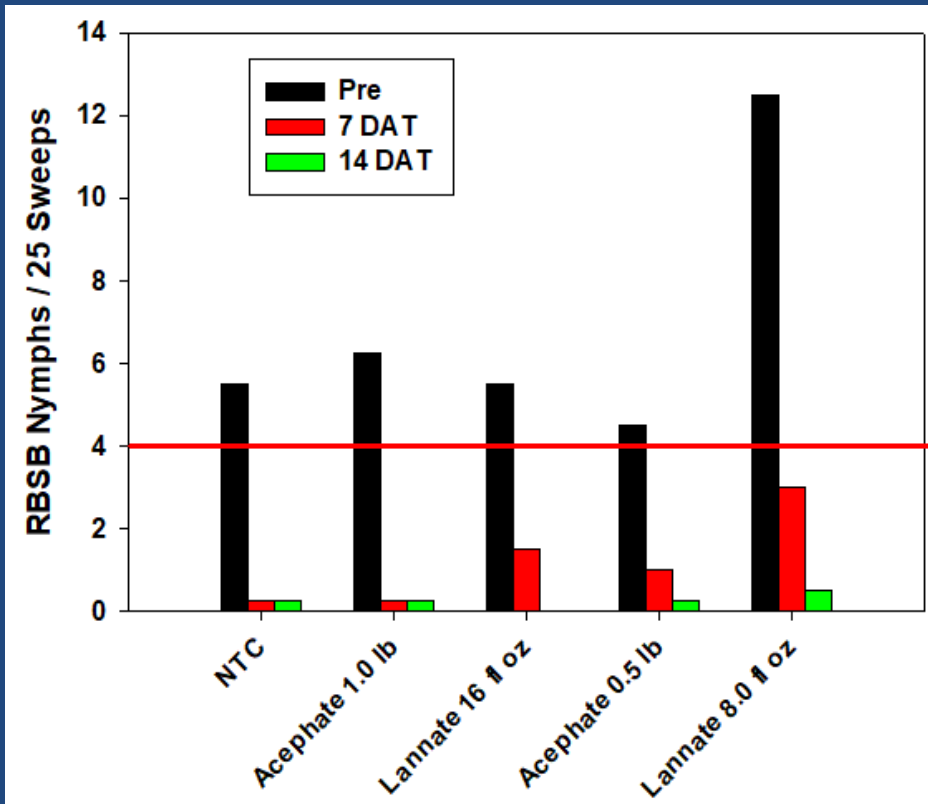
BENEFIT OF NEONIC PYRETHROID MIXES FOR STINK BUG MANAGEMENT



ALTERNATIVE CHEMISTRY



DESSICANT X INSECTICIDE



RBSB lower developmental thresholds and supercooling point

- ❖ Redbanded stink bug supercooling point is -4°F
- ❖ At 23°F , $\text{LT}_{50} = 4 \text{ hr}$ and $\text{LT}_{90} = 7 \text{ hr}$
- ❖ At 32°F , redbanded stink bug had to be exposed for a week to see 95% mortality



J. Davis LSU AgCenter



WINTER TEMPERATURES INFLUENCE RBSB

2014 Winter Temperatures

As of February 3, 2014

Research Station	<u>Hrs</u> at or below 23°F
Ben <u>Hur</u>	23
Crowley	9
Dean Lee	53
Macon Ridge	61
New Iberia	1
Red River	28

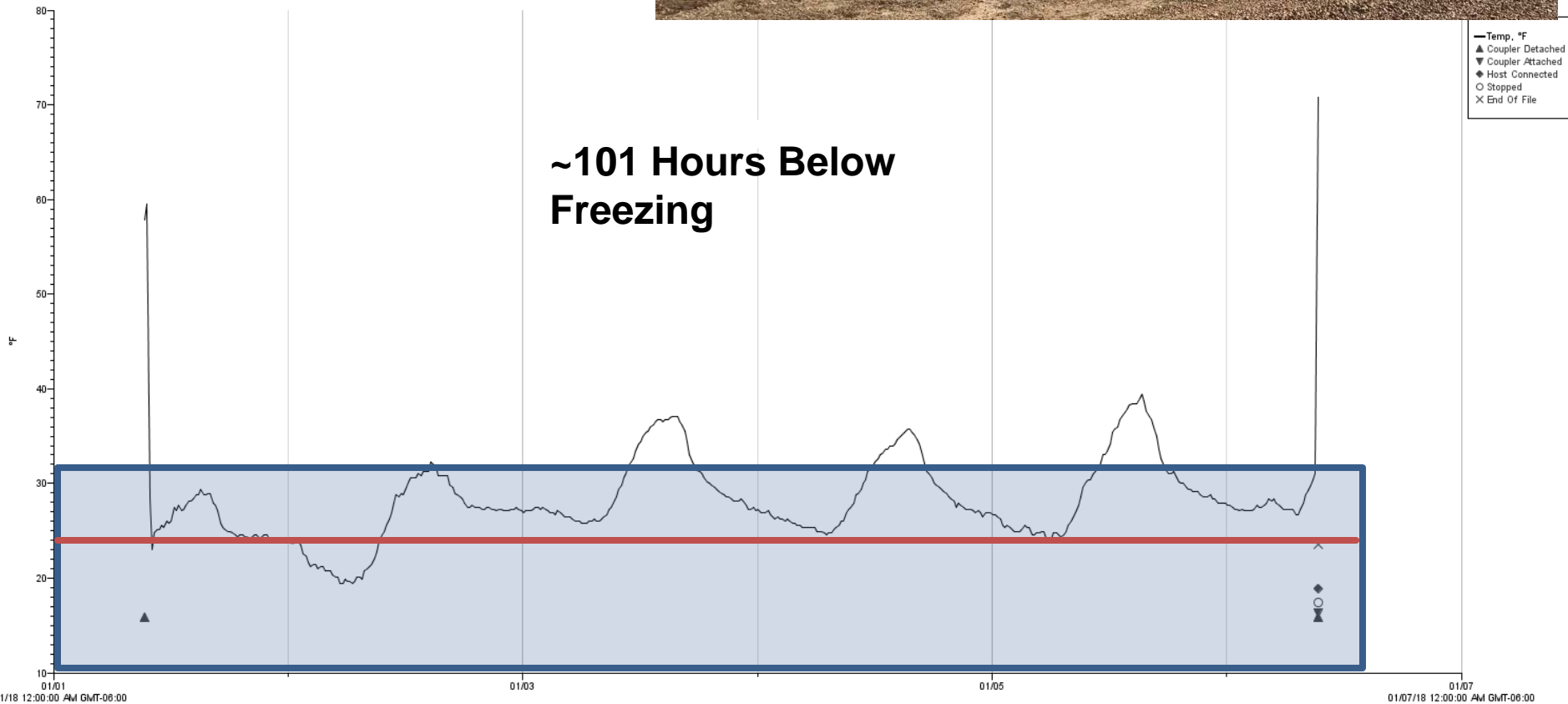
2018 Winter Temperatures

As of February 3, 2018

Research Station	<u>Hrs</u> at or below 23°F
Ben <u>Hur</u>	40
Crowley	22
Dean Lee	41
Macon Ridge	85
New Iberia	22
Red River	72

OPEN FIELD SWITCH GRASS

A. CATCHOT MSU

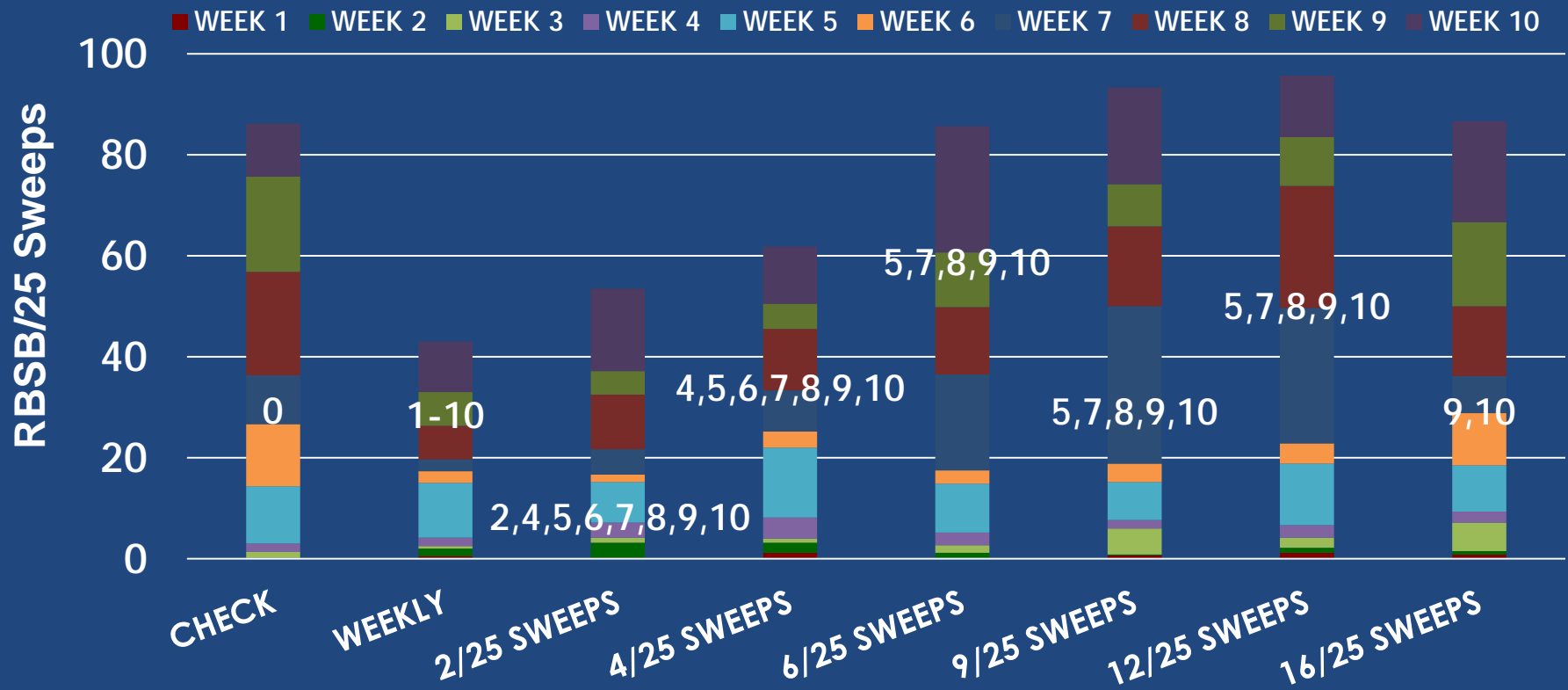


BOTTOM LAND

A. CATCHOT MSU

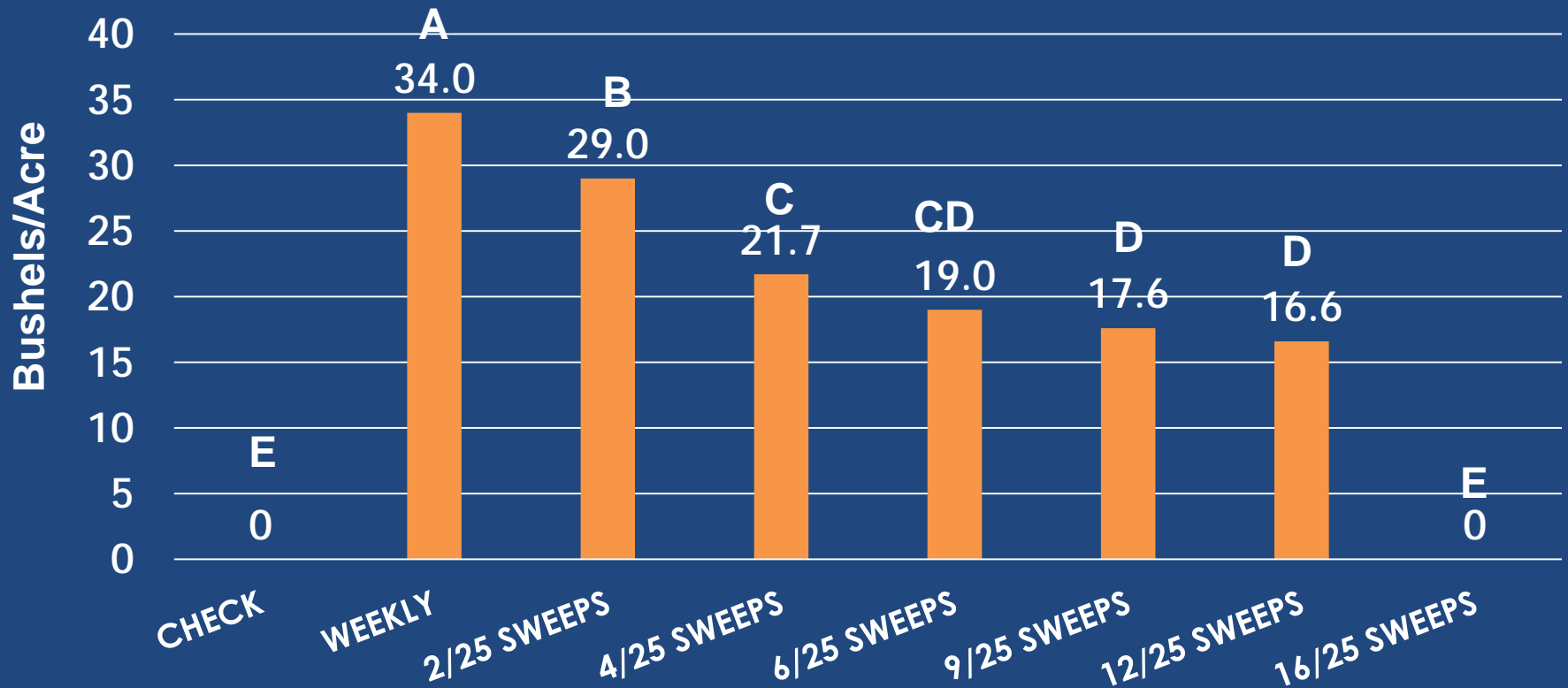


MSEWG THRESHOLD: RBSB 2017 SIDON, MS

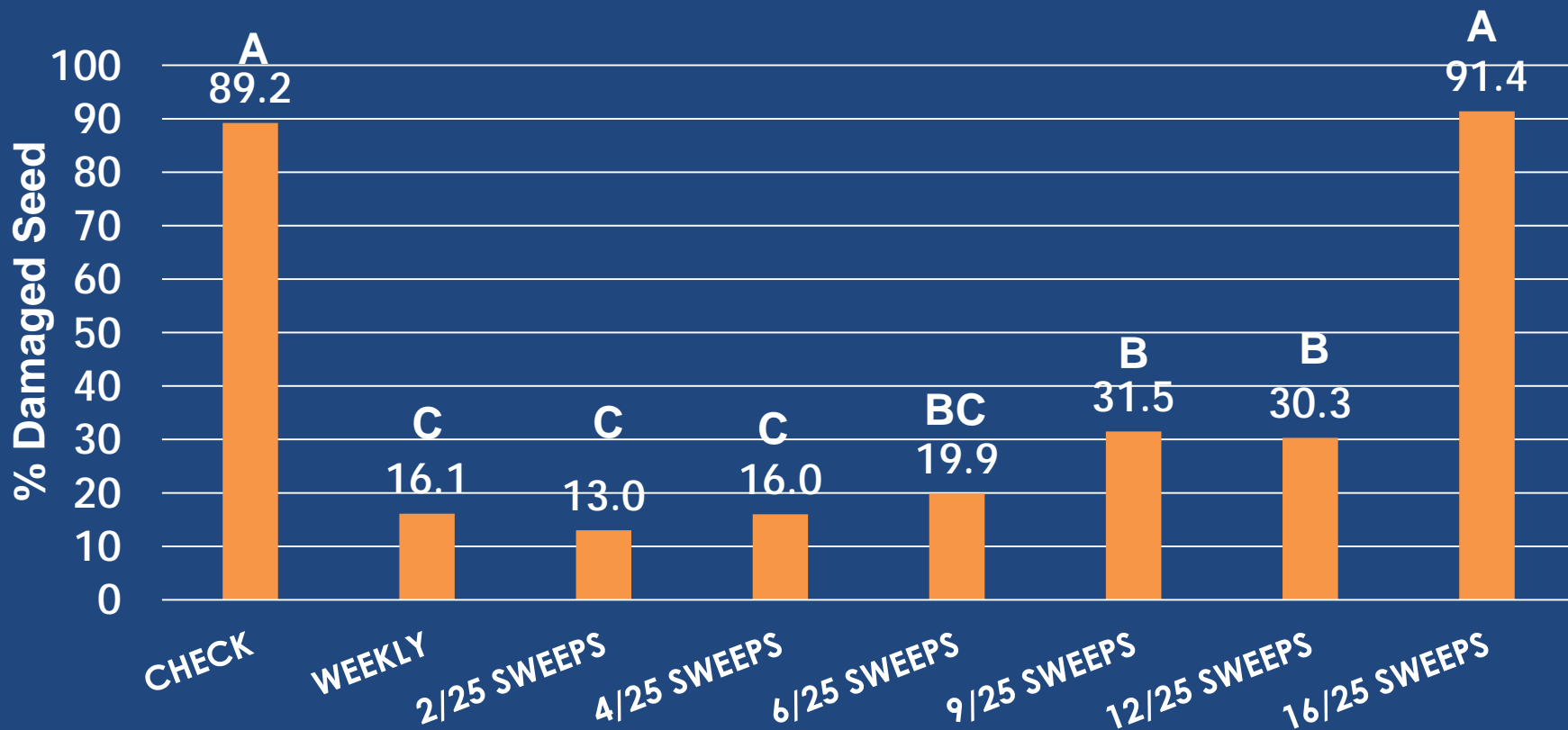


*Numbers denote the week individual treatments reached threshold

MSEWG THRESHOLD: RBSB 2017 SIDON, MS



MSEWG THRESHOLD: RBSB 2017 SIDON, MS



RBSB MISSISSIPPI THRESHOLDS

- Ground Cloth – 2 per 6' of row
- Sweep net - 4 per 25 sweeps

Redbanded Stink Bug Termination

- 10 RBSB/25 Sweeps between R6.5 and R7
- Terminate at R7 (unless adverse rainfall)

R7 = 1 Brown pod
anywhere on plant



2018 MANAGEMENT CONSIDERATIONS

- Populations will likely be low
- Colonization means you are already behind
- Indeterminate beans require modified scouting practices
- The first application may be most important
- Subthreshold populations are causing injury

THANK YOU – QUESTIONS?

