

Soybean Management Considerations for 2019



Trent Irby

Extension Soybean Specialist

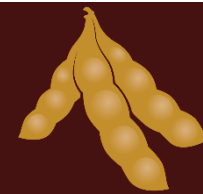


MISSISSIPPI STATE UNIVERSITY™
EXTENSION

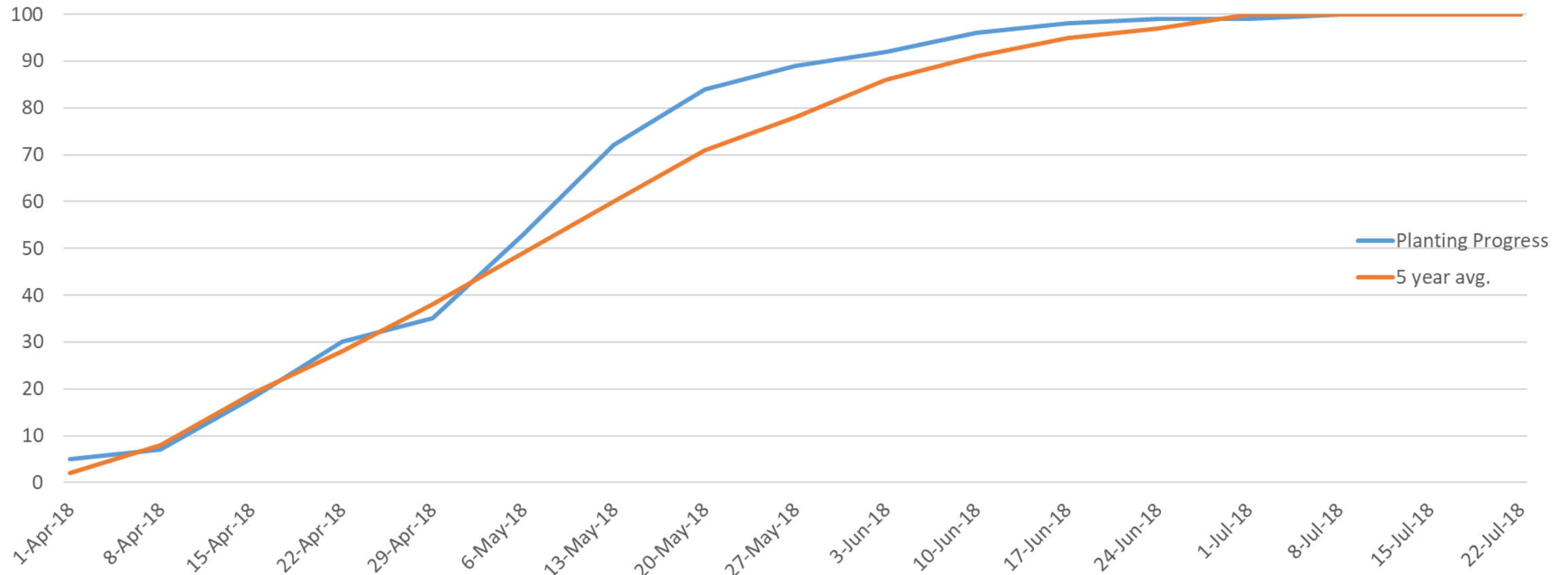


2018 Mississippi Soybean Summary

- **2.2 million acres**
 - Up 1% from 2017
- **53 bu/A**
 - As of November Estimates
 - Tied with 2017 and would remain state record
- **Environmental challenges at beginning and end....**



2018 Planting Progress

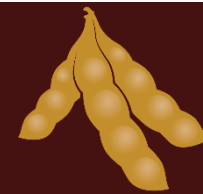


MISSISSIPPI STATE UNIVERSITY™
EXTENSION



Considerations for 2019

- **Stand Establishment & Replant Decisions**
- Fungicide Timing & Seed Quality
- Planting Date, Variety Selection & Seed Quality



Stand Challenges



MISSISSIPPI STATE UNIVERSITY™
EXTENSION



Replant Decisions



0% Removal



25% Removal



50% Removal



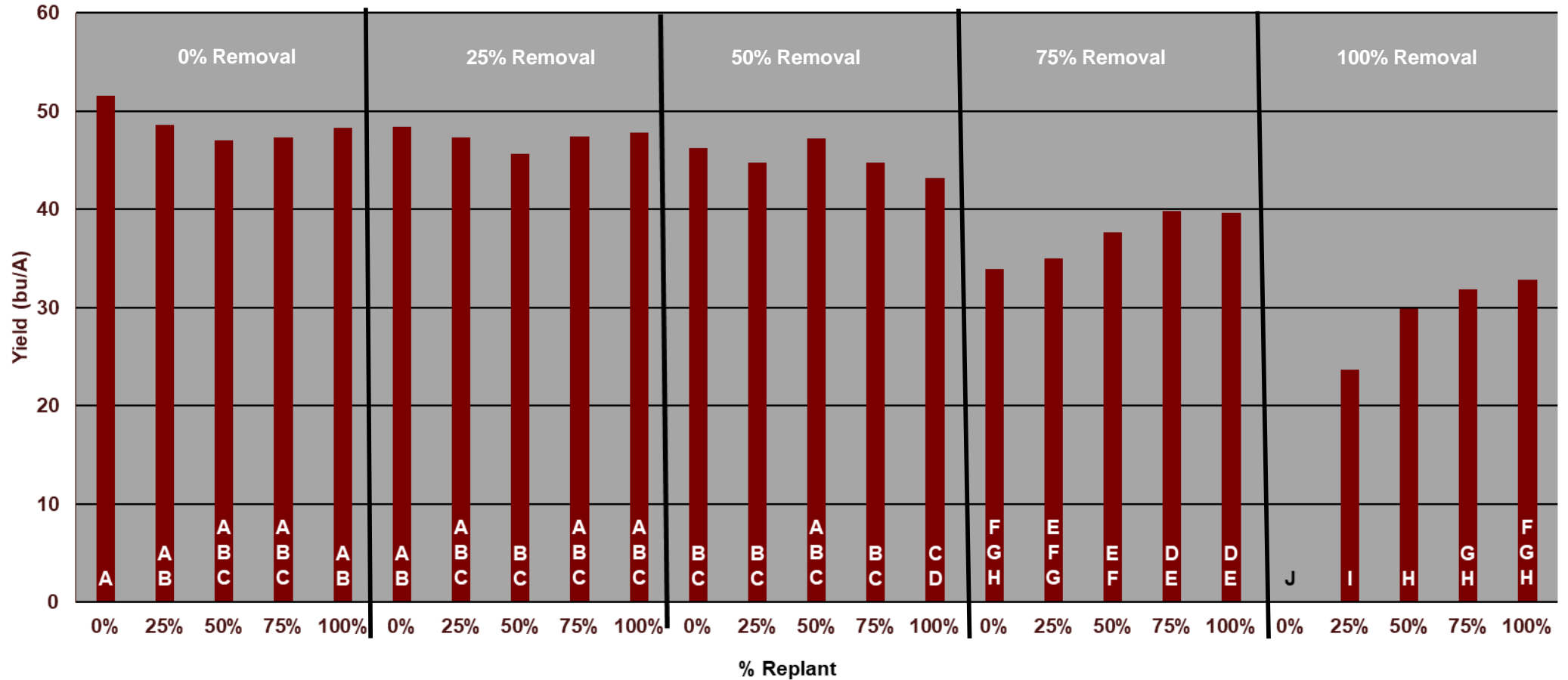
75% Removal



100% Removal



Replant Decisions



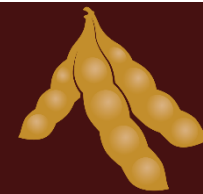
Considerations for 2019

- Replant Decisions
- **Fungicide Timing and Seed Quality**
- Planting Date, Variety Selection and Seed Quality



Fungicide Application Timing

- **Determine if delaying the timing of an automatic fungicide application to later growth stages results in similar response yield observed following applications at the R3 timing.**



Fungicide Application Timing

- **Locations**

- **Starkville, MS (2017, 2018)**
 - Soil type: Marietta Fine Sandy Loam
- **Stoneville, MS (2018)**
 - Soil type: Sharkey Clay

- **Soybean Variety**

- **Pioneer P47T89R (2017)**
- **Asgrow AG46X6 (2018)**

- **Plot Size**

- **Four row plots**

- **40" row spacing- 13.33x40 ft (Stoneville)**
- **38" row spacing- 12.67x40 ft (Starkville)**

- **Application**

- **Two center rows**
- **30 psi**
- **TeeJet Turbo Twin Jet Spray Tips**

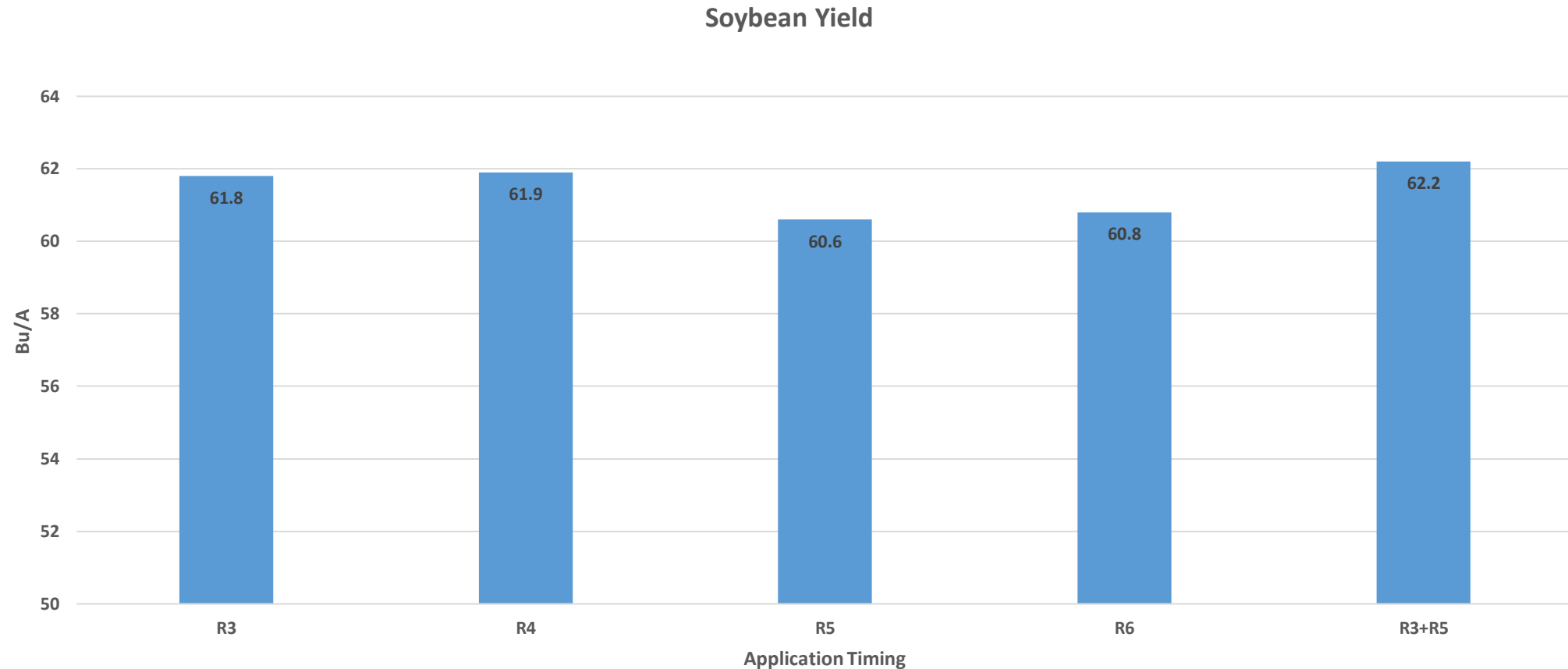


Fungicide Application Timing

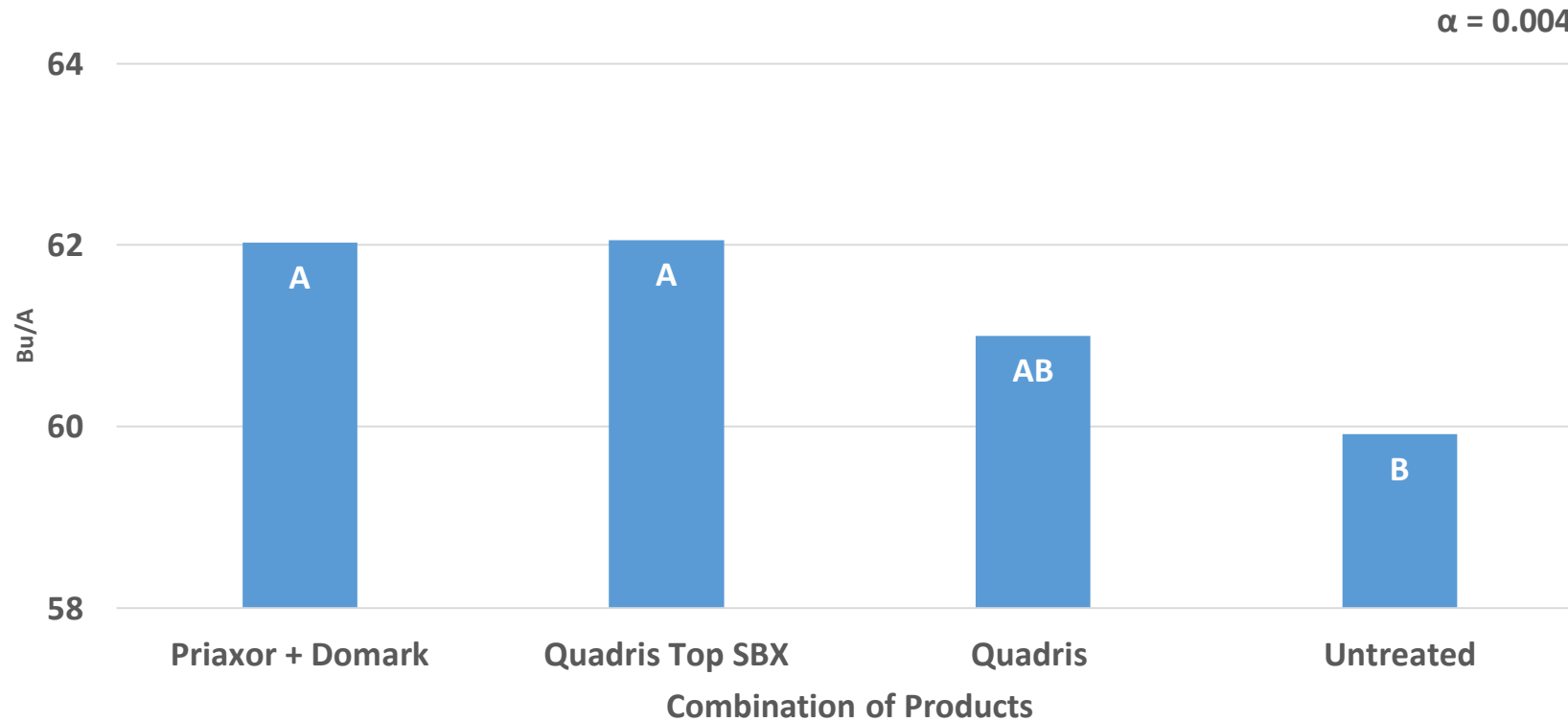
- **20 Treatments**
 - 4 replications
- **5 Application Timings**
 - R3
 - R4
 - R5
 - R6
 - R3+R5
- **3 Products**
 - Quadris (Azoxystrobin)
 - Quadris Top SBX (Azoxystrobin + Difenconazole)
 - Priaxor + Domark (Fluxapyroxad + Pyraclostrobin + Tetraconazole)
- **Untreated Check for each corresponding growth stage**



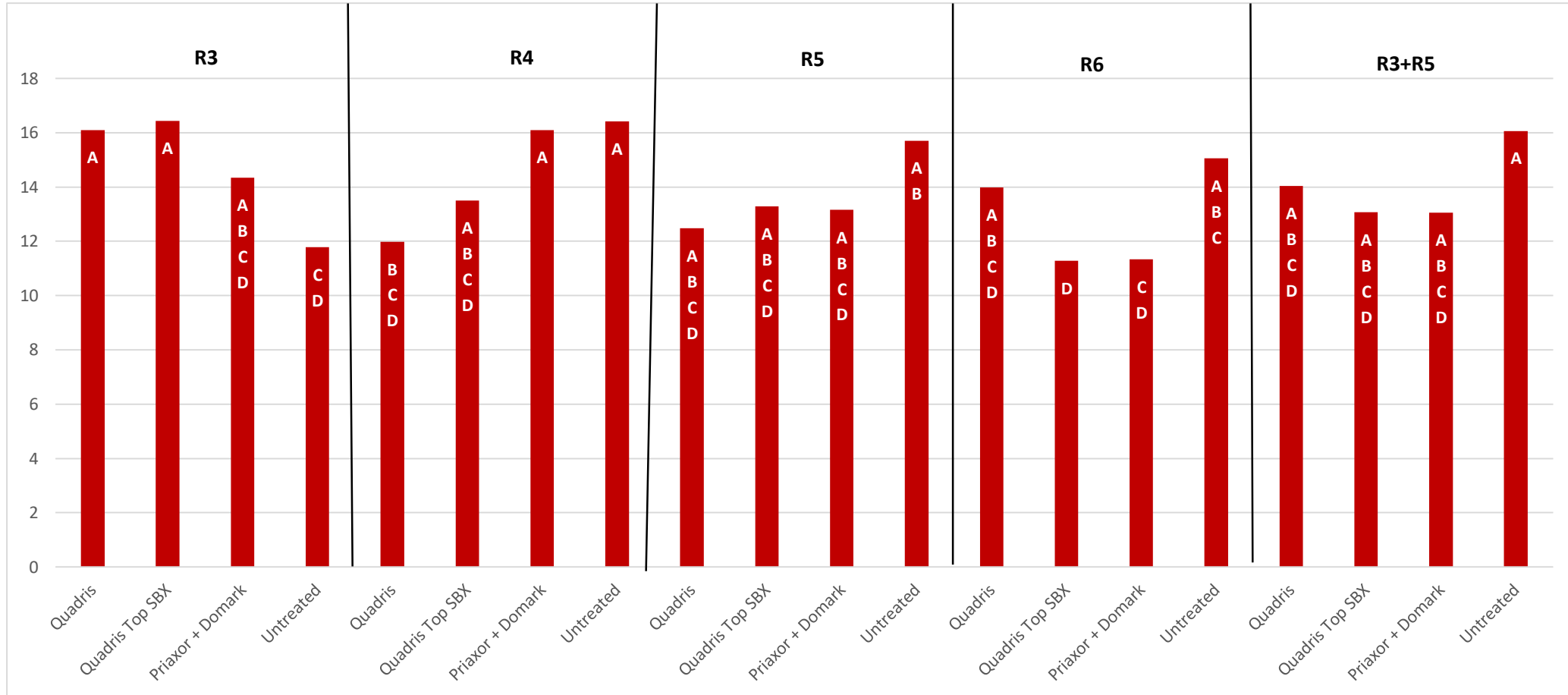
Fungicide Application Timing



Soybean Yield by Fungicide

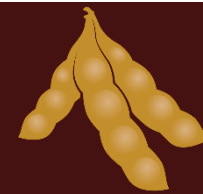


Damage Results

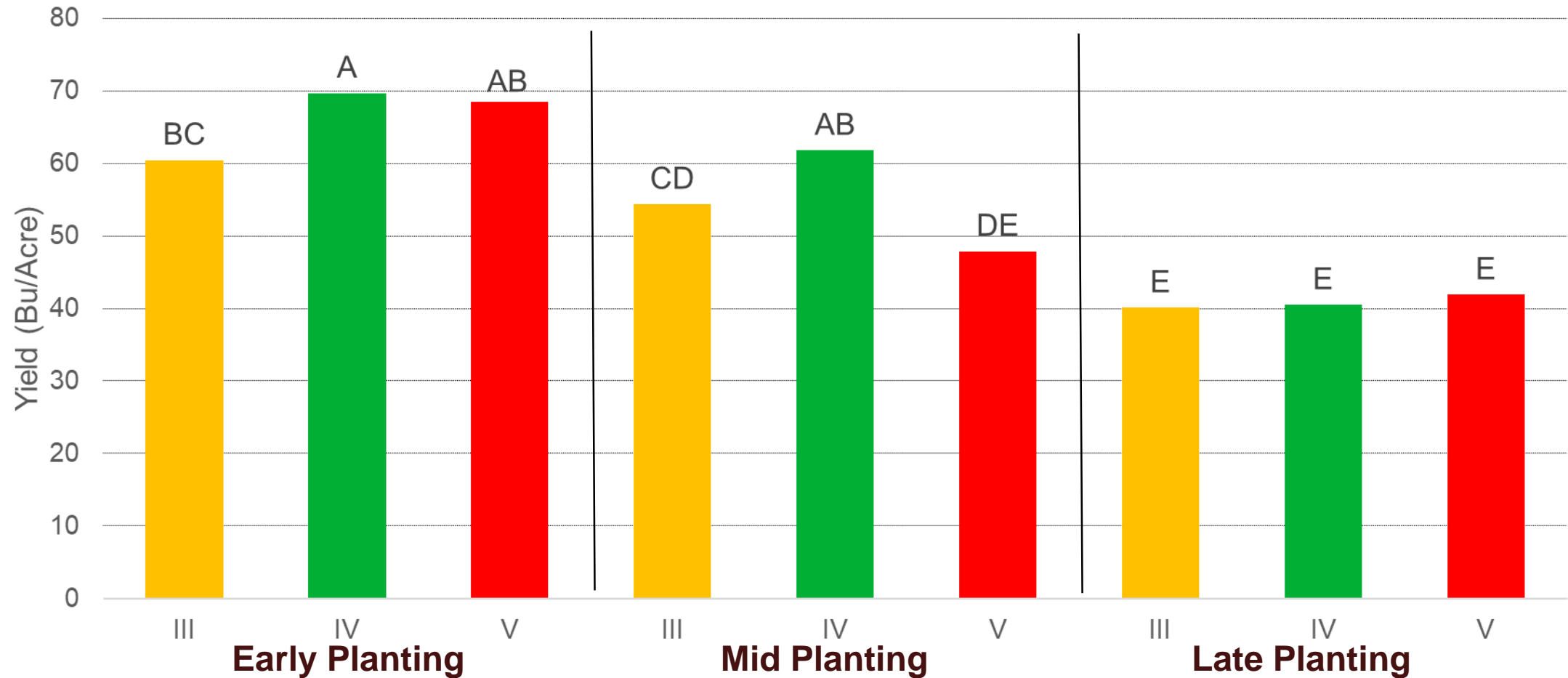


Considerations for 2019

- Replant Decisions
- Fungicide Timing and Seed Quality
- **Planting Date, Variety Selection and Seed Quality**



Soybean Irrigation and Yield: Planting Date and Maturity Group



Source: Wood and Krutz 2017

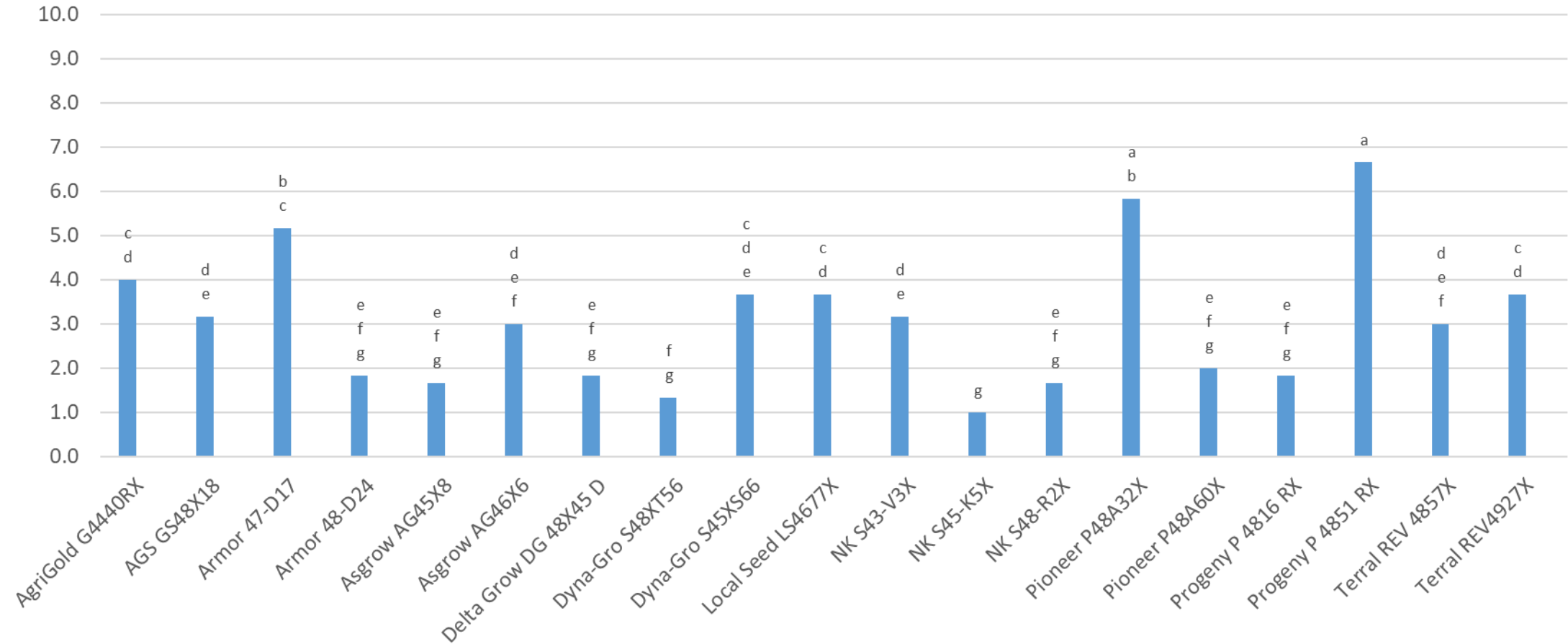


MISSISSIPPI STATE UNIVERSITY™
EXTENSION



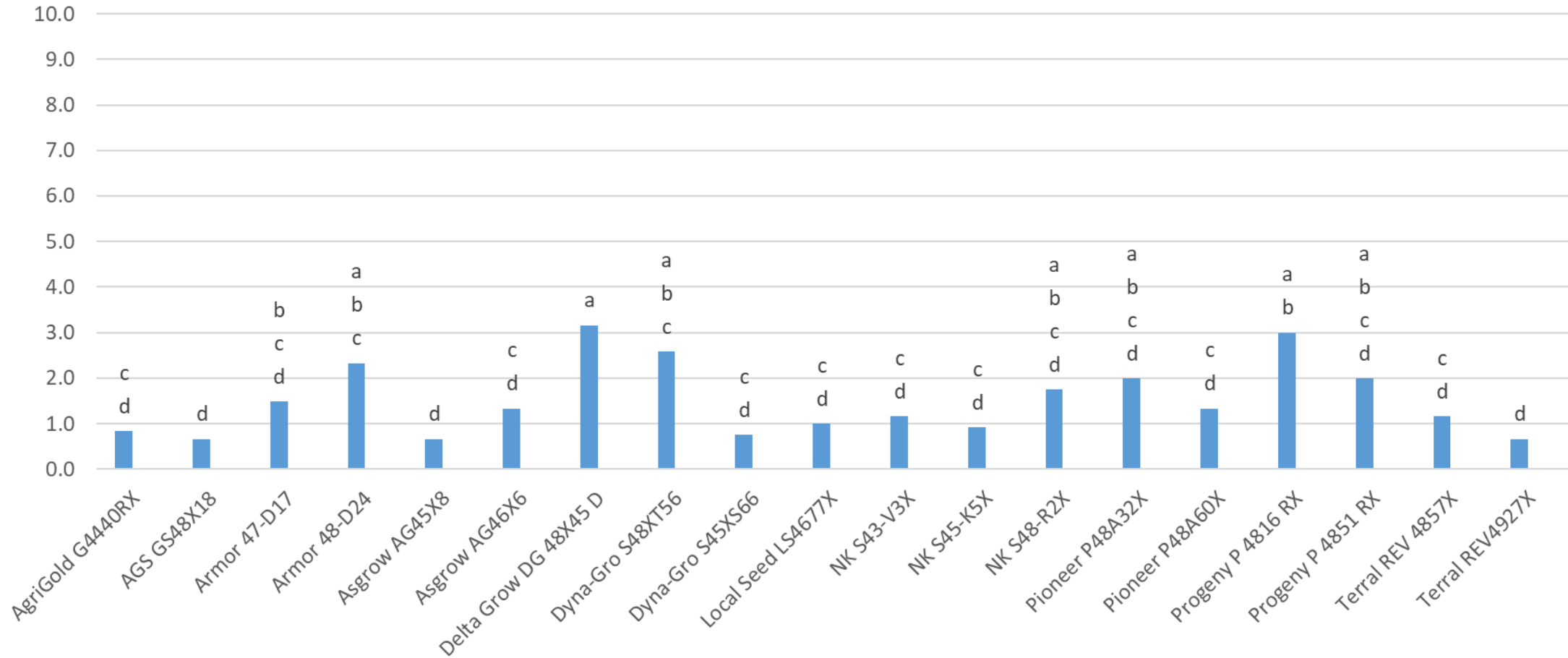
Variety Selection

Lodging Score



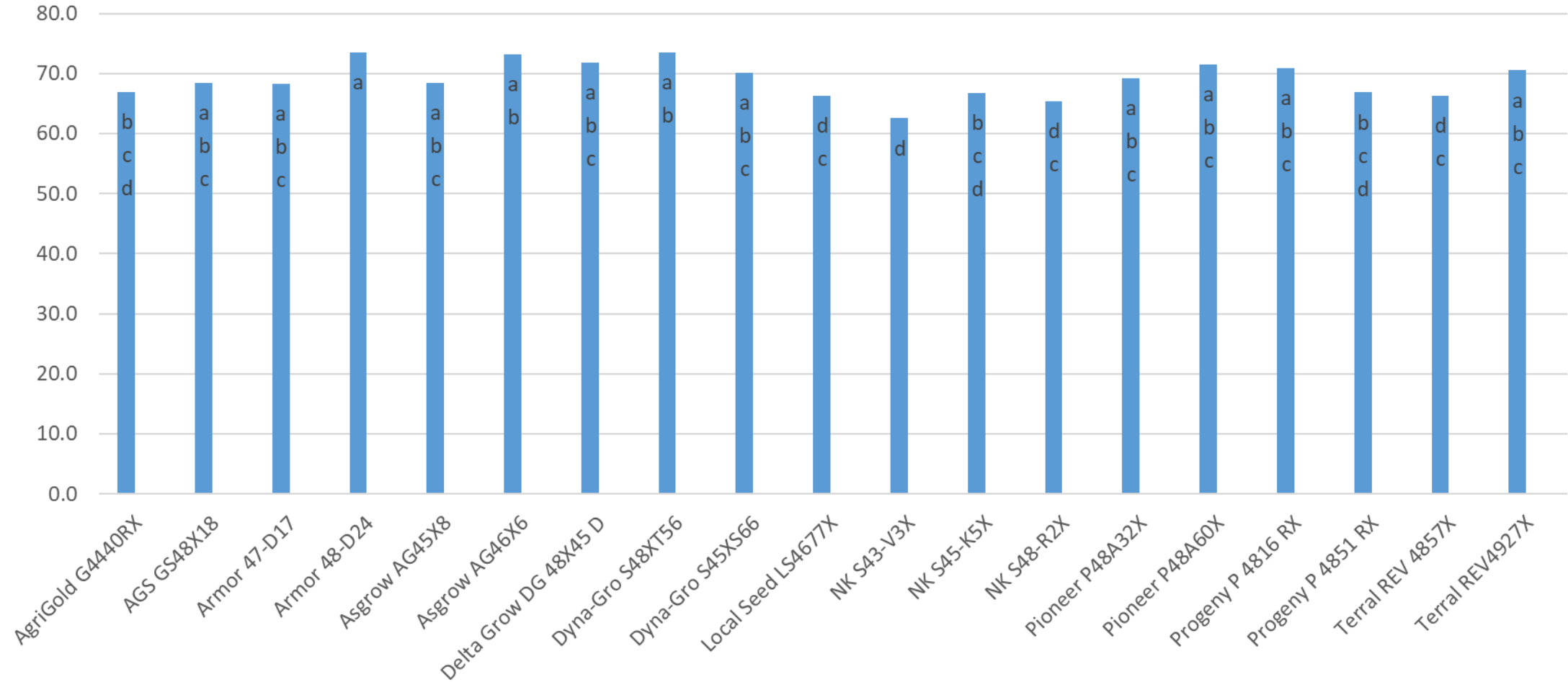
Variety Selection

Soybean Green Stem



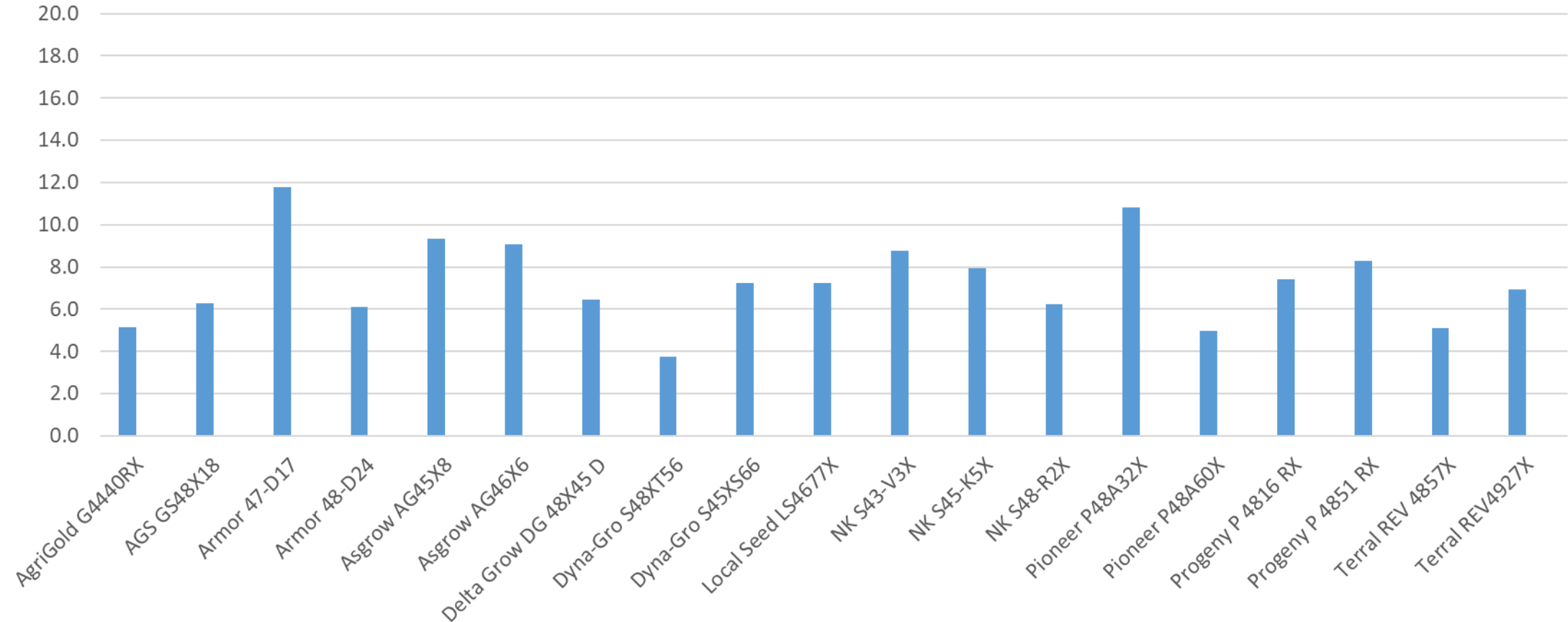
Variety Selection

Soybean Yield



Variety Selection

Soybean Seed Damage



Variety Screening for Iron Chlorosis Tolerance



MISSISSIPPI STATE UNIVERSITY™
EXTENSION



Variety Selection

- Variety screening for tolerance to iron chlorosis
 - 66 maturity group IV and 32 maturity group V varieties in 2018

- Roundup Ready / Roundup Ready 2 / Roundup Ready 2 Xtend
- Visual estimates recorded on a 1 – 10 scale
 - 1 = excellent tolerance
 - 10 = poor tolerance

2018 Soybean Maturity Group IV Late RR / RR2 / RR2X Variety Response to Iron Deficiency Chlorosis								
Brand	Variety	IDC Tolerance Score ¹				Avg. IDC Tolerance	Yield (bu/A) ₂	
Great Heart	GT 4975X	4	5	5	5	4	55.3	
Asgrow	AG48X9	4	5	5	4	3	4	52.9
Terral	REV 4927X	4	5	5	4	3	4	51.8
GoSoy	49G16	4	5	6	6	5	5	48.2
USG	749X15	5	6	6	6	5	6	47.6
Delta Grow	DG 4790 RR2	4	5	6	5	5	5	47.3
Progeny	P4757RY	5	5	6	5	5	5	46.3
Progeny	P4799RXS	6	6	6	5	5	6	46.1
Dyna-Gro	S48X156	4	6	6	6	6	5	43.7
Croplan	RX4825	4	6	6	6	5	5	43.2
NK	S48-R2X	3	4	4	5	4	4	42.7
AgriGold	G4995RX	6	6	6	5	5	5	42.5
Progeny	P4816RX	4	6	6	5	5	5	42.2
Progeny	P4955RX	5	5	6	6	6	6	40.9
MorSoy	MS 4846 RXT	5	6	6	6	5	5	40.8
Great Heart	GT 4833XS	6	6	6	6	6	6	39.9
Local Seed	LS4889XS	6	6	6	7	5	6	38.1
Armor	X47D22	5	5	6	5	5	5	38.1
Pioneer	P48A60X	5	6	6	6	6	6	38.0
Terral	REV 47A08	4	5	6	7	6	5	37.9
Local Seed	LS4860X	5	6	6	6	5	5	37.8
Dyna-Gro	S48X139	5	5	6	6	6	6	36.6
Asgrow	AG47X9	6	6	6	7	6	6	35.5
Delta Grow	DG 48X45RR2X	5	6	6	6	6	6	34.4
Progeny	P4994RX	6	6	6	7	7	6	33.1
Terral	REV 4857X	6	6	6	6	6	6	29.1
USG	749X15	6	6	7	7	7	7	29.0
Univ. of Missouri	S14-15138R	6	6	7	7	6	6	28.9
Local Seed	LS4968XS	6	6	6	6	6	6	26.9
Petrus Seed	4916 GT	6	6	6	6	6	6	25.9
Terral	REV 48A26	5	6	6	7	7	6	24.9
Croplan	RX4827	6	7	7	7	7	7	23.2
Great Heart	GT 4721X	7	7	7	8	8	7	21.5
Asgrow	AG49X9	6	6	7	7	7	7	21.1
Progeny	P4851RX	7	7	7	7	8	7	19.7
Local Seed	LS4988X	6	6	7	7	7	6	19.7
Great Heart	GT 4809X	7	7	7	7	8	7	19.0
AGS	GS 48X18	6	7	7	7	7	7	18.0
Petrus Seed	479 GTS	6	6	7	8	7	7	16.8

¹ Tolerance scores were assigned on a scale of 1 to 10 with 1 being completely tolerant and 10 being completely susceptible.
² Yield was only collected at one location, while tolerance scores were collected at two locations.
 These data are intended to serve as an additional resource for variety selection specifically for soils with a history of problems associated with iron deficiency chlorosis. Consult other sources such as results from Official Variety Trials and Demonstration Programs for detailed information regarding variety performance.
 The information given here is for educational purposes only. References to commercial products, trade names, or suppliers are made with the understanding that no endorsement is implied and that no discrimination against other products or suppliers is intended. Copyright 2018 by Mississippi State University. All rights reserved. This publication may be copied and distributed without alteration for nonprofit educational purposes provided that credit is given to the Mississippi State University Extension Service.



MISSISSIPPI STATE UNIVERSITY™
EXTENSION



Soybean Variety Selection

- **Mississippi Soybean Official Variety Trial**
 - <http://www.mafes.msstate.edu/variety-trials/>
- **MSU-ES Soybean Variety Demonstration Program**
 - <http://www.mississippi-crops.com/2018/11/02/2018-soybean-variety-demonstration-program-summary/>
- **MSPB – MSSoy Variety Selector**
 - <http://mssoy.org/variety-selector>



Thanks!

Trent Irby

Extension Soybean Specialist

Phone: 662-418-7842

Email: trent.irby@msstate.edu



**MISSISSIPPI STATE UNIVERSITY™
EXTENSION**

