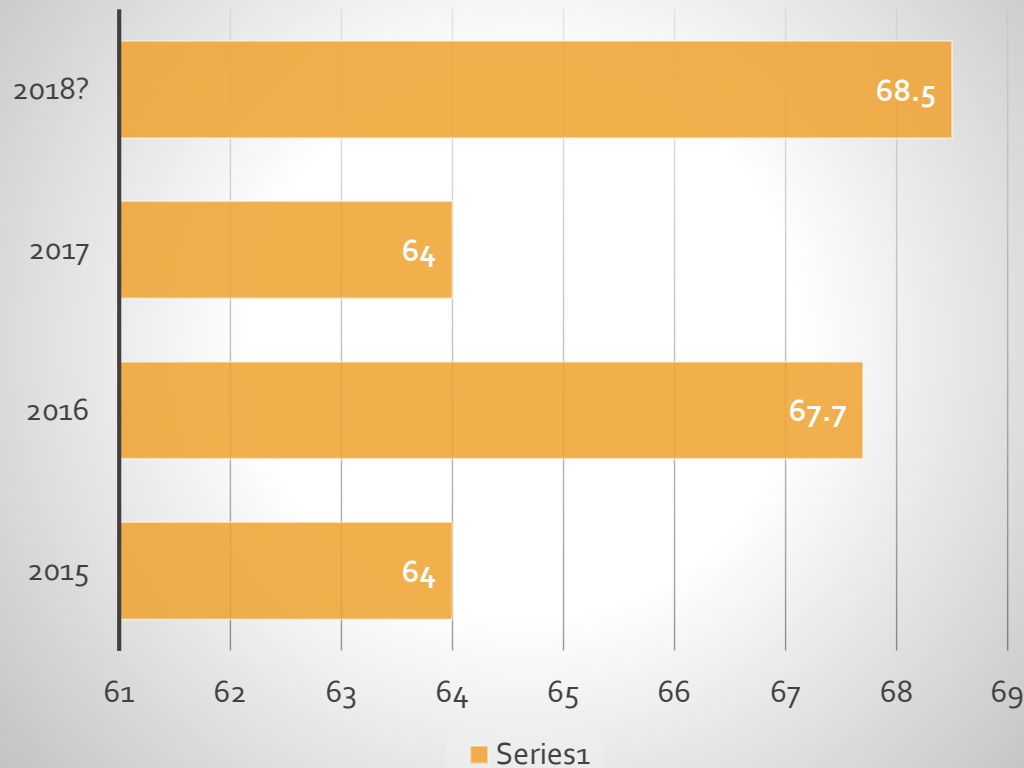


Management practices to increase yields

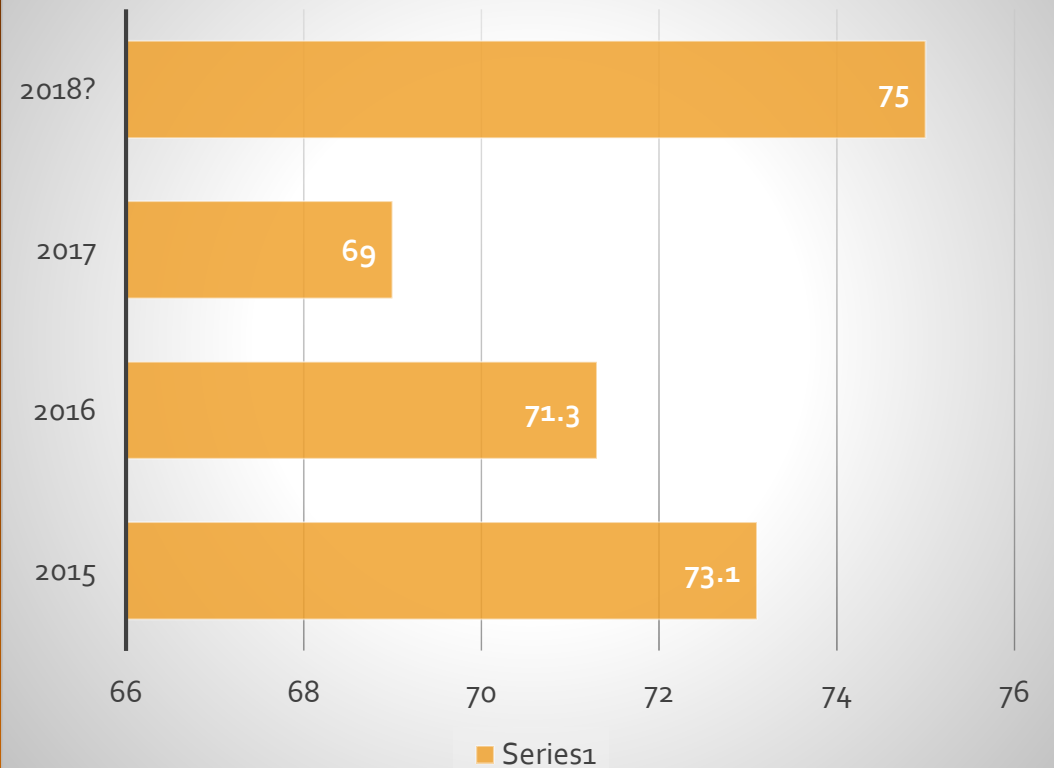
The Pursuit of 100+ Bushel Soybeans

Champaign & Piatt County

Champaign County Average



Piatt County Average



Components of Corn yield

- Where do stand counts factor in to equation?
- Number of Ears at harvest
- Number of kernel rows around
- Test weight of kernels

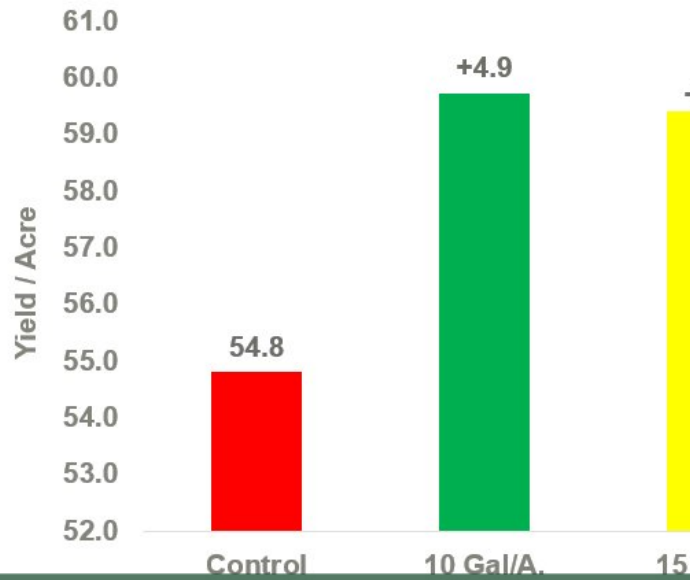


Components of Soybean Yield

- Number of Pods on a plant. Also influenced by number of nodes.
- Number of Beans per Pod.
- Seed size and ultimately seed weight.
- Every thing you do during the growing season should be targeted at influencing components!

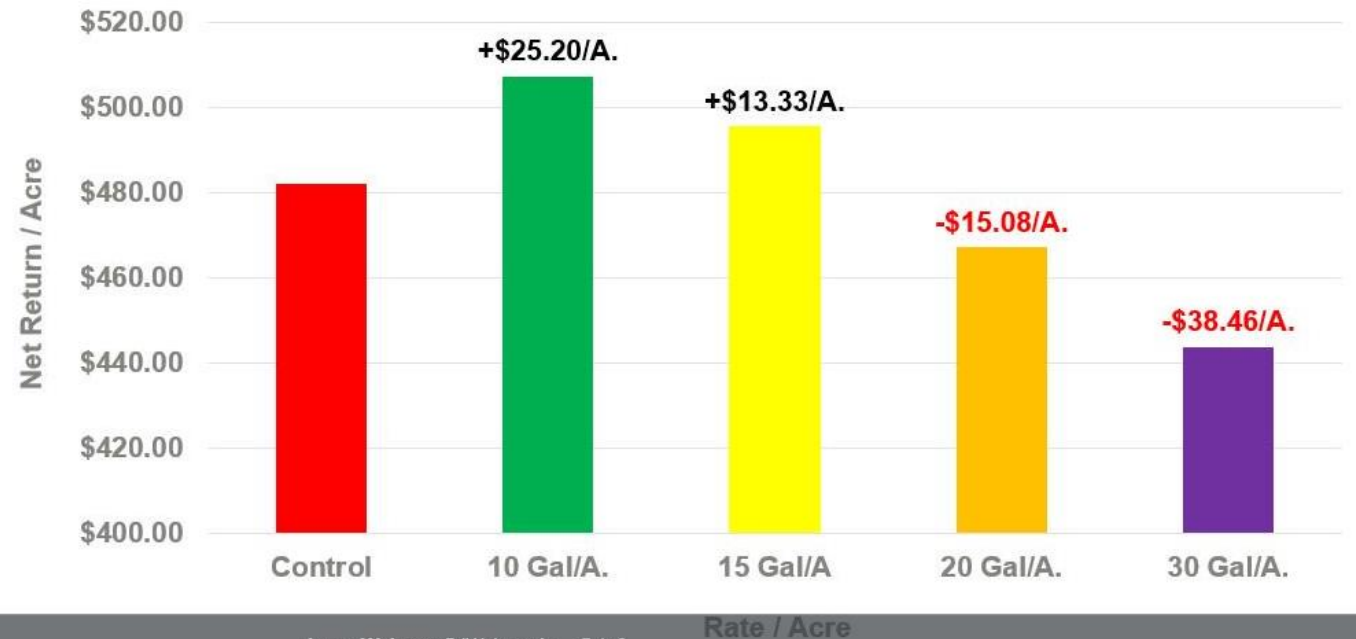


2018 14-12-4-6S Dual Band Conceal Study: Yield



5# K & 16# S

2018 14-12-4-6S Dual Band Conceal Study: Economics



Jason Webster @JWebsterAg · Feb 9
 Who said dual band fertilizer is just for corn acres?
 6S at 10-15 Gal/Acre on SOYBEANS!
 Precision Planting

2-0-2-.1B-.15CU-.3

Jason Webster @JWebsterAg · Feb 9
 Who said dual band fertilizer is just for corn acres? Nice economic gain with this 14-12-4-6S at 10-15 Gal/Acre on SOYBEANS!
 Precision Planting

Maximizing “Seed Real Estate”

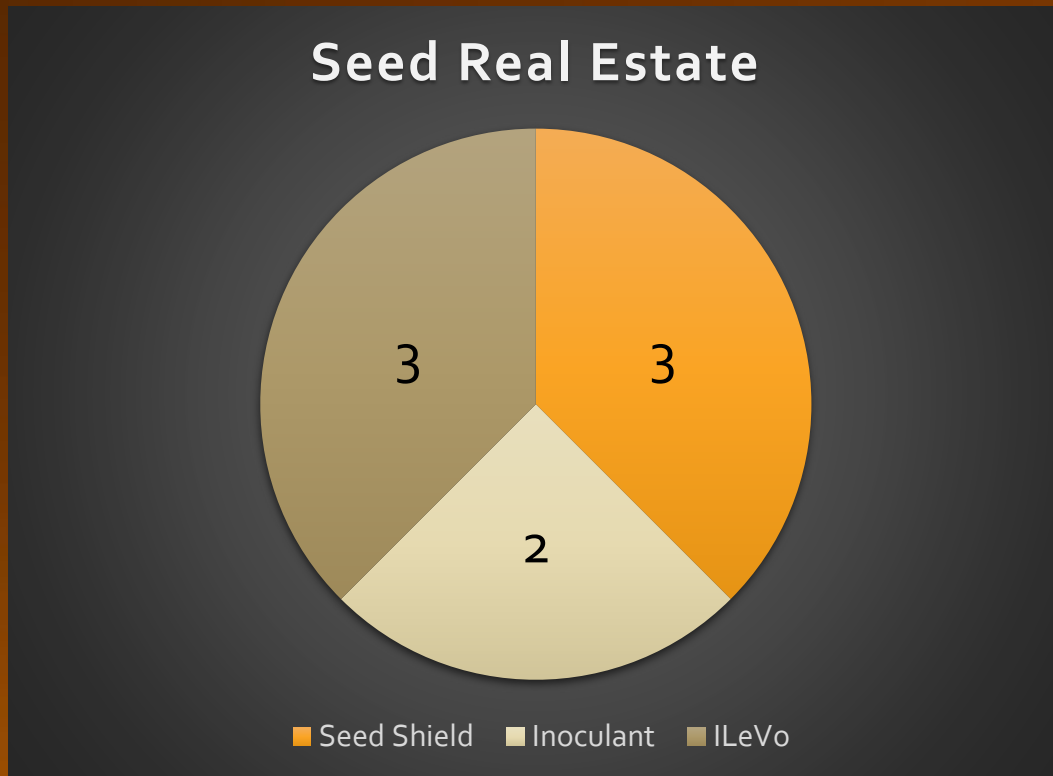
Choose your 8 ounces wisely

- Fungicides
- Insecticides
- SDS control
- Nematicides
- Inoculants
- Growth Promoters
- Micronutrients

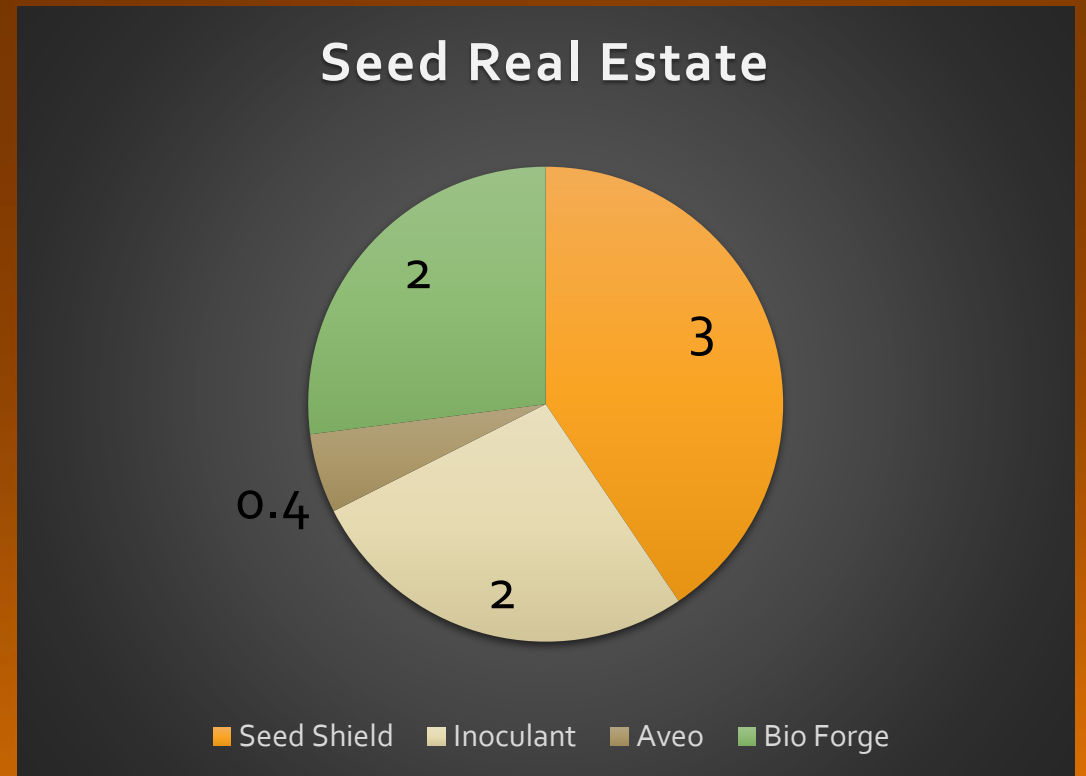


Seed Real estate example

Seed Shield/ILeVo/Inoculant

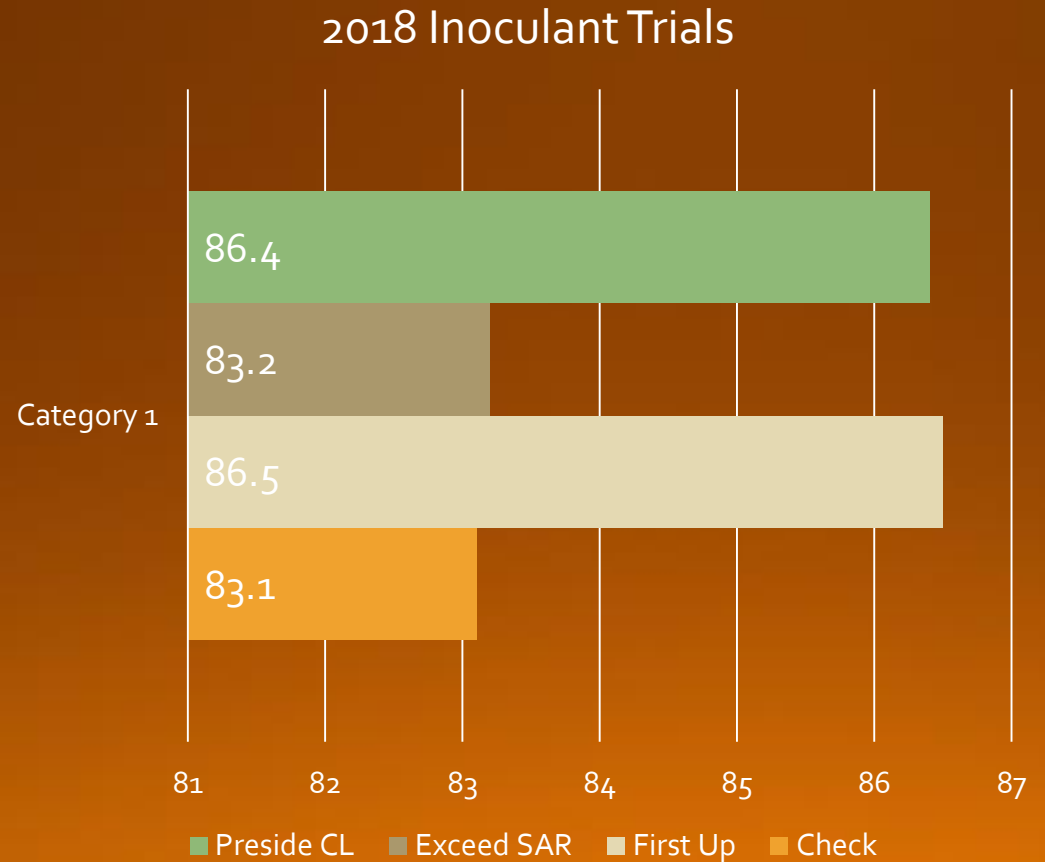


Seed Shield/Inoculant/Nematicide/Bio Forge



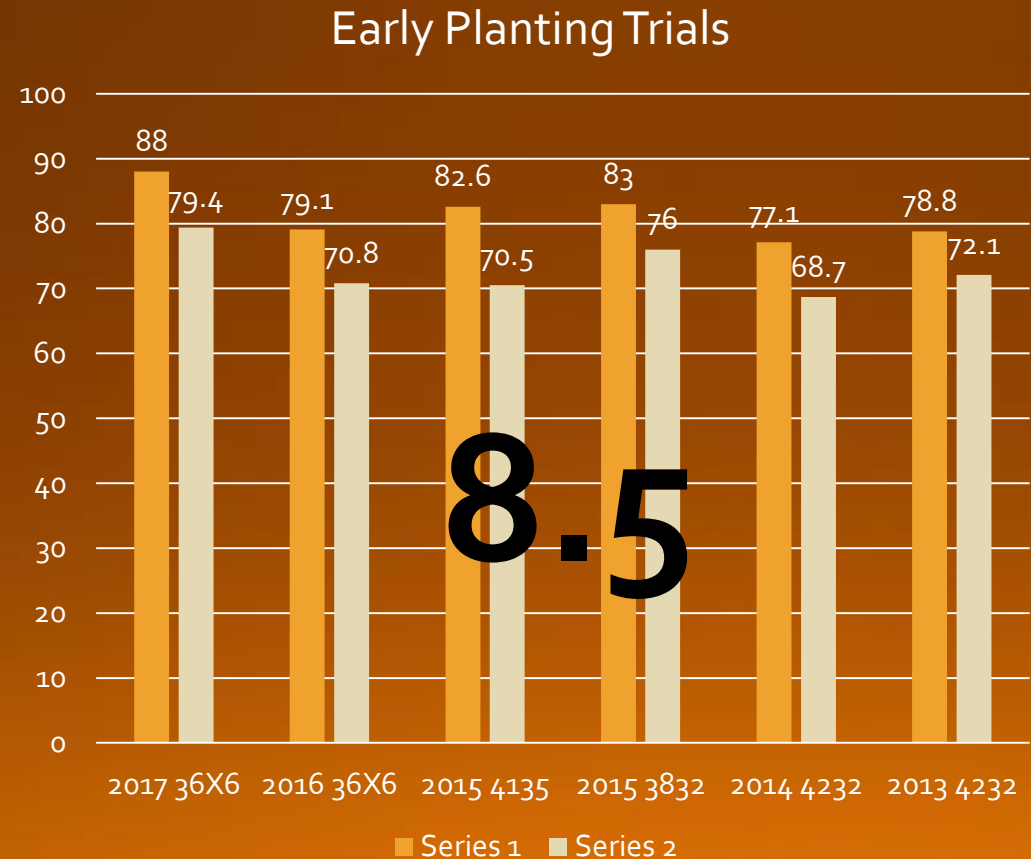
Inoculate EVERY Year....

- Seed applied is #1 choice, then in furrow, followed by planter box.
- Double inoculate
- How many pounds of N does it take to produce 1 bushel of soybeans?
- 5# Nitrogen per bushel
- 90 bushel crop requires 450# N



Why Early Planting is so Important

- 10 Years of early planting trials
- ZERO crop failures
- Dates as early as 2/22, 3/18 and 3/22.
- Growers give up .4-.5 bushel per day after May 10 planting dates
- Soil temperature for soybean seeding-46°
- 50+ days in ground



The Great Row Width/Population Debate

- 30" rows-Good for fields with known White Mold issues. Good for fields that utilize row cultivation for weed control. Most varieties are medium bush and canopy well. Early planting will help to quicker canopy.
- 20" rows- Maximize light interception/air infiltration/canopy. My choice for high yield environments.
- 15" rows-Good choice for droughty soils or weedy situations where quicker canopy is necessary. Manage populations!
- Populations-target 115-125,000 final stand.

Yield determination stages

- What growth stage will a soybean determine the number of branches?
- V₂/V₃
- Mechanical damage by rolling to influence branching
- Chemical applications to influence branching
- What growth stage will a soybean set the number of nodes?
- V₅
- Plant will set max number of nodes. Can decrease number but not increase the number set at V₅.
- Utilize applications at post spraying to help influence nodes.

Soybean Holiday

- Summer Solstice-June 21
- Flowering by first week in June
- Increases node potential
- Quicker canopy
- Captures more energy in R phases
- Spends more time in the VN-R₂ stages



Controlling the environment

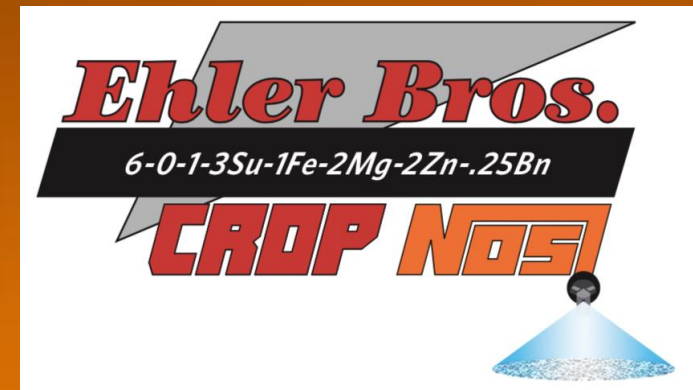
Offense

- Auxins
- Hormones
- Plant Vigor
- Plant Nutrition



Defense

- Stress Reducers,
- Abiotic stress-Heat, cold, drought, excess moisture
- Fungicides-Ethylene
- Insecticides

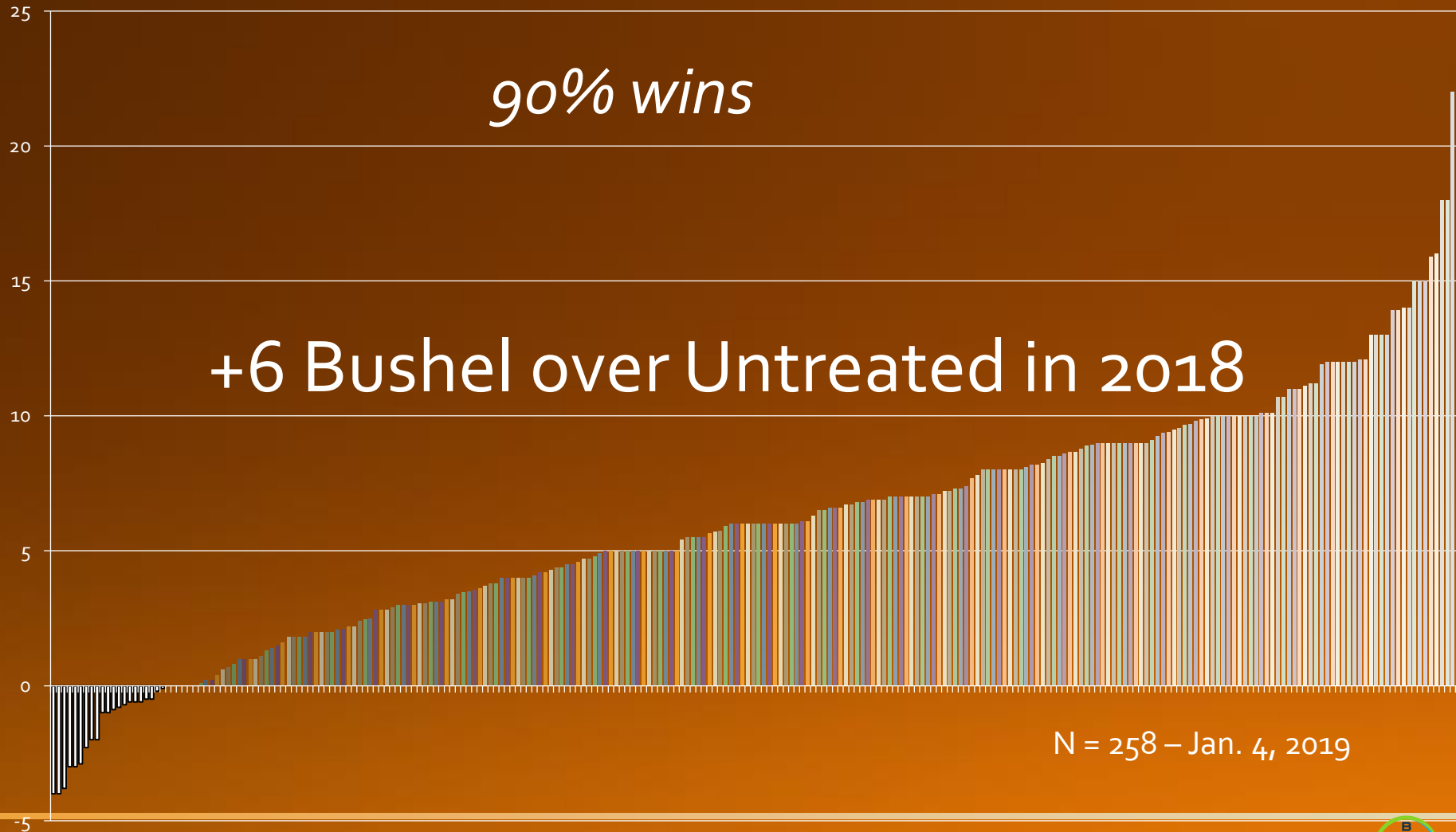


R₂/R₃ Applications

- Fungicide & GOOD insecticide
- 2018 Illinois pest survey data showed large increases FY17 in Japanese Beetles(2.5X), Stink Bugs(2X), and cloverworm/loopers. Utilize state and local pest surveys.
- Cheap pyrethriod vs good residual
- Utilize tissue samples to make foliar nutritional applications



R1-R4 Soybean Midwest



Time for Vacation.....Right?



Post R3 opportunities

Defensive

- Insecticides
- Fungicides



Offensive

- Fungicides(keep plant alive longer)
- Nutrition
- Nitrogen
- Products to influence seed size and weight
- Source - Sink

Great Soybean Resources

- Facebook-The Pursuit of 100+ Bushel Soybeans
- Twitter-@Bean_Dork
- Dr. Sean Conley, University of Wisconsin, www.coolbean.info
- AJ Woodyard, BASF, Technical Crop Specialist, focus on soybeans
- Randy Dowdy, Farmer, Valdosta, Ga, current world soybean yield record holder
- Dr. Fred Below, University of Illinois, Plant physiology, 6 secrets of soybean success



Questions?

