

2019 Performance Summary NORTHWEST EDITION



Unbiased, Accurate Yield Testing, Every Time



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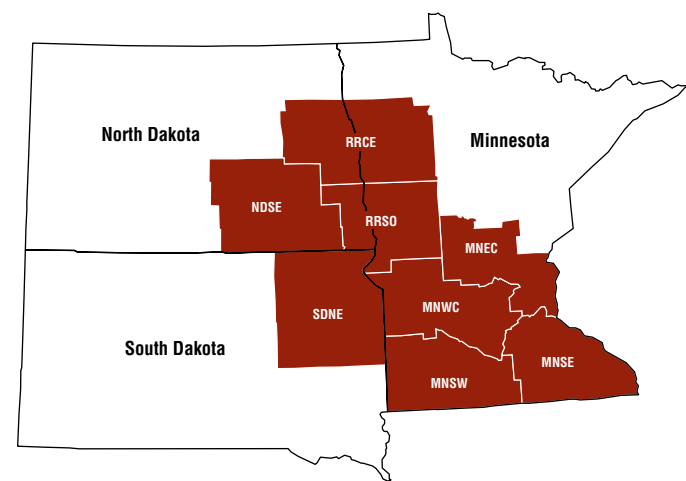
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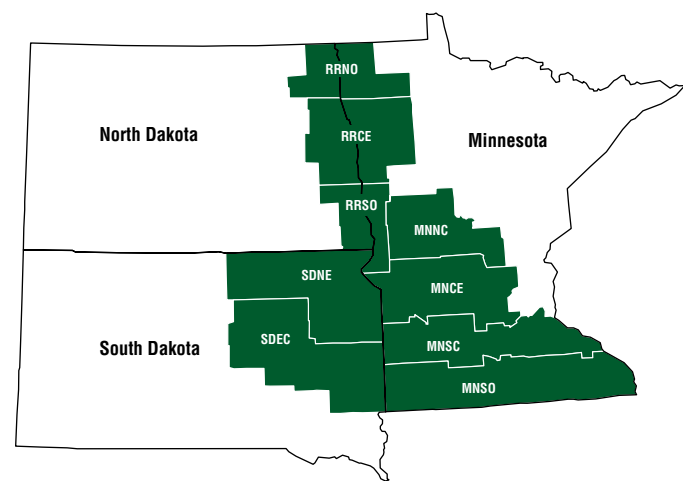
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Special Note: The FIRST organization gratefully acknowledges the 2019 financial support provided by the United Soybean Board. Their assistance in sponsoring our soybean tests, funding the grain quality analysis and distribution of information products, such as this publication, are valuable contributions to our success.

FIRST Works For You

FIRST works for you the farmer... and you the seed salesman and you the agronomist. We apply our best efforts for you, the seed consultant and farm manager. We labor long hours for our seed sponsors. We are committed to working for all of you with one focused mission:



To provide timely unbiased comparisons of innovative seed genetics to improve yield and profitability for American farmers.

We live in a world driven by data. Data helps us weigh our options, mitigate risk and make better decisions. It offers greater control. FIRST's work is about gathering and comparing data so that you can be more confident with your seed product choices.

FIRST delivers actionable yield data so farmers can make better seed buying choices for their unique conditions. Our information products are also designed to help seedsmen and seed consultants match the best performing seed products

with their customer's particular growing needs. We give agronomists a comparative tool in their toolbox that fills gaps in regions and growing conditions that their data may not cover. We give seed sponsors a strategic perspective on strengths and opportunities for growth under one consistent testing program across a contiguous geography covering most of the country's corn and soybean growing regions.

FIRST provides a fair and objective platform under a uniform standard to compare seed productivity under a multitude of soil and growing conditions across 15 states. We test over 1,560 seed products from over 70 seed companies across more than 30 distinct growing regions. We manage over 530 replicated tests on 320 farms so the corn and soybean industry can better match seed performance with particular growing conditions. We've been doing this work for 23 years.

Our data is designed to deliver different perspectives to meet different needs. FIRST produces three information products. *Product Directories* are an index of the products being tested each year, organized

by seed company. *Harvest Reports* document seed product performance at the field level. *Performance Summaries* compile all of the *Harvest Reports* within a multi-county corn or soybean region. All our information products can be found and downloaded in pdf format at www.firstseedtests.com.

Our work relies on a productive collaboration between cooperating farmers, sponsoring seed companies, our Field Managers and our network of publishing partners. Seed companies sponsor entries in the program, independent farmers provide the test site locations, our independent Field Managers administer the program, and our publishing partners help us disseminate our data to over 400,000 farmers.

We are grateful for the opportunity to be of service. We invite interested parties to visit www.firstseedtests.com for more detailed and complete information on all our information products. We look forward to continuing our longstanding and productive partnerships in the delivery of timely unbiased comparisons of innovative seed genetics to improve yield and profitability for American farmers.

A Note From Our Information Product Manager



Jessie Bhalerao, Information Product Manager

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It is an honor to join FIRST this year as Information Product Manager. The organization and integrity of FIRST data is an important example I used in prior work as an agricultural engineer. There were 526 tests planned this year, run by our 11 Field Managers: independent business owners working together with high standards of test methodology and data collection, providing fast delivery of corn grain and soybean performance information.

The 2019 growing season raised many challenges from start to finish. Persistent spring rains pushed back planting throughout all states, up to prevent plant dates, and several sites could not be planted due to wet conditions. High rainfall continued after planting, causing some emergence problems and ponding on poorly drained areas. Farms in Minnesota saw widespread wind damage from storms in July, and greensnap and lodging made harvest difficult. While a few areas of Nebraska, southern Iowa, Illinois and Pennsylvania had dry spells, the story in late summer was cool weather with fewer GDUs than normal. With late planting

dates, it was difficult for the fuller-season hybrids and varieties in the northern states to reach maturity. The fall turned cold early, and killing frosts and snows occurred in October. Poor weather and high grain moistures made harvest as challenging as planting. Widespread liquid propane shortages caused delays in harvesting corn, and late-planted soybean moistures remained very high.

Yields for harvested fields were often higher than plot host expectations, given the wet and cool conditions, and yields were often similar to site averages. This is a credit to the seed industry that produces resilient products. Considering the many difficult situations the plot hosts and Field Managers faced, we were able to harvest more than 80% of the planned tests.

This was a transition year for FIRST data management, and we will bring you more tools and information for making seed product selections in the coming year. We hope this Performance Summary book will help you find the right products to suit your farm.

A Collaboration for Success

FIRST accomplishes its mission in collaboration with seed company sponsors, independent farmers, FIRST Field Managers and our network of publishing partners. Seed companies sponsor entries in the program, our cooperating farmers provide test site locations across 15 states, our independent Field Managers administer the program, and our network of publishing partners help disseminate our data to over 400,000 farmers and agriculture professionals.

THE SEED SPONSOR'S ROLE

Seed companies have relied on FIRST yield data for the past 23 years as it provides an independent and unbiased source for presentation to a discerning and competitive marketplace.

They choose products and testing regions to meet a varied number of strategic priorities. New products, new traits, and new territories are just some of the reasons seed companies sponsor the FIRST program.

Seed companies trust FIRST because every product is assured accurate and unbiased testing. They have increased their investment in the FIRST program because FIRST consistently delivers actionable data—within days of the fall harvest—that can be leveraged for the late fall seed sales season and beyond.

Our sponsors provide seed and applicable entry fees to our Field Managers who administer the program. This investment delivers comparative data for their production and marketing decisions. It also directly benefits the individual growers and the entire American corn and soybean industry as a whole.

THE TESTING SITE HOST'S ROLE

The testing site hosts play an integral role in the FIRST program. Collectively, they offer a representative sample of diverse growing conditions across 15 states.

Many FIRST site hosts have been affiliated with the program for over 10 years. Reasons vary for host participation. Some hosts value the yield data gained from testing 50 to 150 seed products in their field using their production practices. Others view it as a goodwill contribution benefiting the agricultural community as a whole.

FIRST greatly appreciates our host partner's collaboration. Sharing their knowledge of what is required to make a business of producing grain is an ongoing lesson for each of us.

THE FIRST FIELD MANAGER'S ROLE

The role of our Field Managers is that of program administrator. Field Managers recruit and work with seed sponsors and plot hosts within their respective regions. They administer seed sponsor accounts and identify prime test site locations that are representative of the geographic diversity and conditions within their area. Field Managers also process and package seed selections, and plant and monitor the test sites. In the fall they harvest, collect the data and transfer it to the Data Manager for final processing.

Throughout the year they attend mandatory FIRST training sessions, and update their methods and equipment to keep up with the latest developments.

THE PRINT PUBLISHER'S ROLE

FIRST collaborates with an extensive network of publishing partners that help us get our data to farmers and agricultural professionals across the country. Numerous local and regional agricultural newspapers publish our *Harvest Reports* on an annual basis. Collectively, they reach over 400,000 farmers and seed industry professionals.

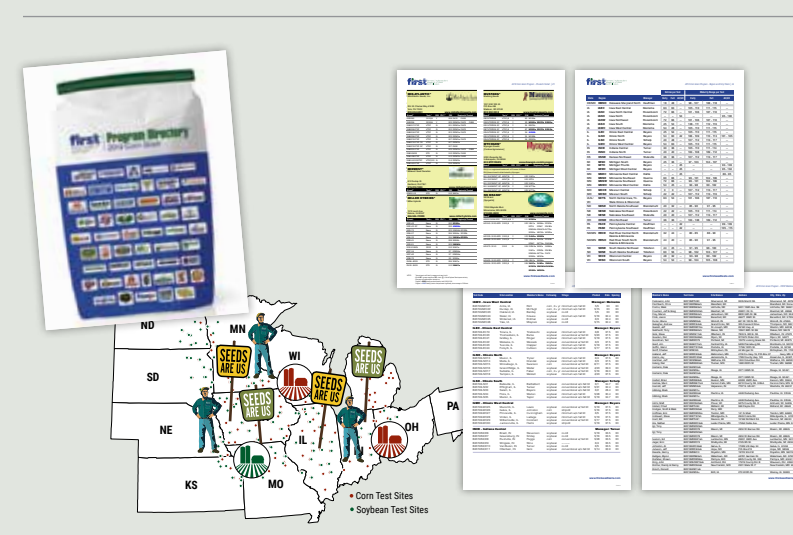
FIRST's Information Products Offer Different Perspectives



We believe that the most useful tool is the one that gets used the most. FIRST is committed to making our data easy to navigate, understand and apply. Our goal is to make our data useful to all our audiences: farmers, seedsmen, managers and consultants, agronomists, and seed companies.

FIRST produces three information products, Product Directories, Harvest Reports, Performance Summaries and an annual Yield Guide. These products offer different levels of insight. Product Directories are an index of the products being tested each year, organized by seed company. Harvest Reports are a field-level view of product performance. Performance Summaries are a multi-county or regional perspective. These three products offer a set of tools useful in finding the best seed products with particular characteristics for different conditions and considerations. Each product is designed with the end user in mind, providing the perspective that's most applicable to a particular need.

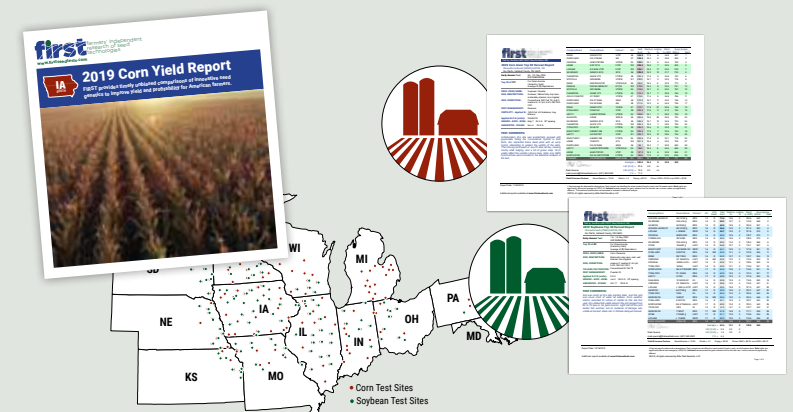
All of our information products can be downloaded from www.firstseedtests.com in pdf format.



PRODUCT DIRECTORIES are an index of the products being tested each year, organized by seed company. The *Directories* also include region and entry totals, test site descriptions, and contact information for our FIRST field managers and a list of FIRST member growers. These are a preview of the current year's Testing Program. They also identify products tested in the previous year that are being retested. Products that did significantly above average the previous year are specifically noted.

Designed for

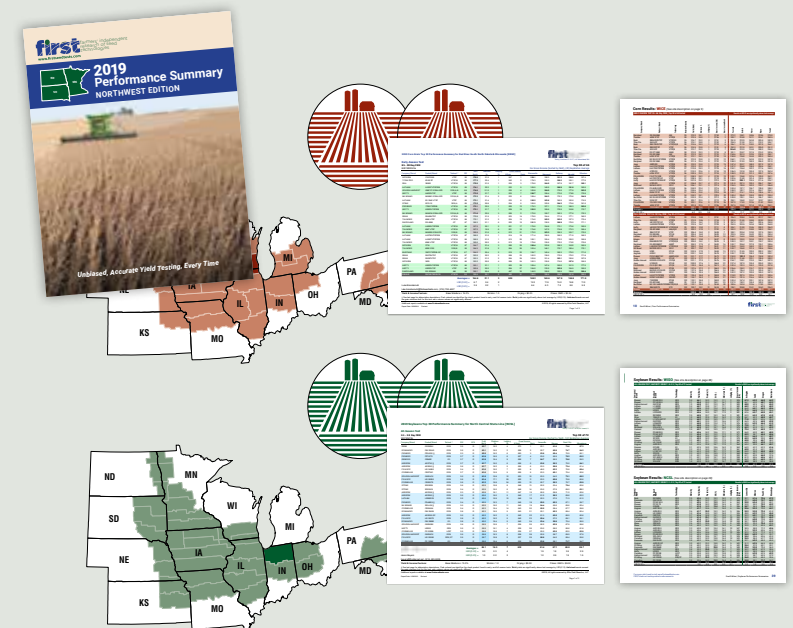
- Growers
- Seed Dealers/Farm Mgr
- Sales Mgmt



HARVEST REPORTS are field-level results. Think of them as the farm next door. *Harvest Reports* register results from individual test sites in locations that are representative of specific areas. They are the results of replicated seed tests from farms participating in a FIRST corn or soybean program within your region. These reports offer a direct side-by-side comparison of products grown at each test site.

Designed for

- Growers
- Seed Dealers/Farm Mgr
- Sales Mgmt



PERFORMANCE SUMMARIES compile the results of all the *Harvest Reports* within a multi-county corn or soybean region organized by maturity ranges. Test entries are sponsored by seed brands conducting business in these areas. The same seed products are tested at all test sites within a region. Generally, states are subdivided into 2–5 regions. Some regions overlap 2 or 3 states if appropriate.

These summaries offer a direct side-by-side comparison of products grown at each test site. This apples-to-apples approach demonstrates seed performance differences due to production practices or growth environment. Product yield results within a region are averaged and ranked. Individual test site results presented provide insight about where and when these products are best suited.

Designed for

- Growers
- Seed Dealers/Farm Mgr
- Sales Mgmt

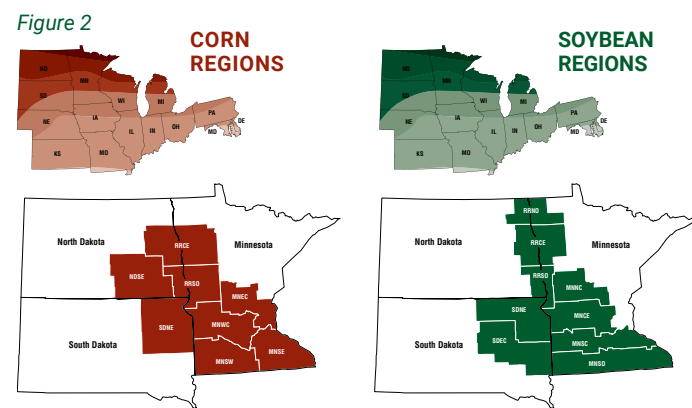
FIRST Testing Methodology and Procedures

TESTING PROGRAM

Our testing program compares corn and soybean seed product yield and agronomic performance in grower fields across 15 states: Delaware, Illinois, Indiana, Iowa, Kansas, Maryland, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, Pennsylvania, South Dakota and Wisconsin (Figure 1).



Testing regions have been established to provide similarity by geography and crop maturity. Seed products within a predefined maturity range (i.e., 106 to 116 RM corn or 0.7 to 1.5 maturity soybeans) are pooled into a single, all-season test or split into early- and full-season tests depending on entry volume. Products are planted at five or six corn test locations or four soybean locations within a region (Figure 2).



Test locations are selected to represent the geographic diversity within a region. Ideal sites have uniform, well-drained soils where farmer hosts use standard production practices for the area. Typically, all tests at a location are conducted adjacent to each other to minimize yield variance between tests.

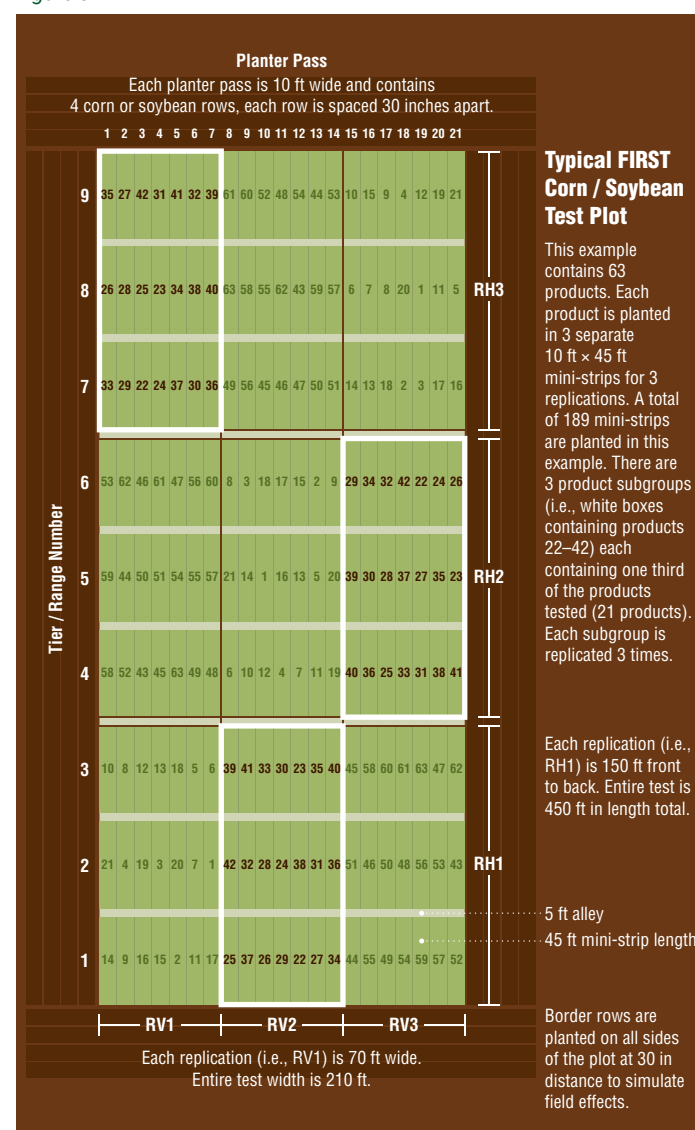
Seed companies and/or seed distributors are invited to submit their most promising seed products within specified test maturity limits to desired test regions (See pages 21–24 & 35–37). They provide high-quality seed from commercial lots and fees to enter FIRST tests. The only exceptions are check products (CK after product names, i.e. x1234 CK), chosen by FIRST Managers to bridge results between early- and full-season tests, and Grower Comparison products (GC after the product name), often provided by host farmers for their knowledge as test space permits.

Products are replicated three times minimum per test and grouped in sub-blocks arranged in replication blocks from front

to back and side to side. This provides more precision in yield measurement and flexibility should a disruptive event (i.e., standing water) require elimination of non-uniform test areas. FIRST Field Managers package, randomize, and plant seeds into host grower fields using slightly modified commercial planting equipment to facilitate mini strip research. Individual plots (a.k.a. mini-strips) contain four corn rows spaced 30-inches apart, 45 feet in length (Figure 3). Soybean is planted in four rows spaced 30-inches apart or seven 15-inch spaced rows. Soil insecticide is typically applied to corn at planting. Seeding rate is based on standard area practices.

FIRST Managers measure yield from the center two corn rows or all soybean rows using customized commercial self-propelled combines. Grain from each plot is electronically weighed and moisture content measured. Soybean grain is sampled from one replicate per test for protein and oil content analysis.

Figure 3



PERFORMANCE SUMMARIES

FIRST Corn Grain and Soybean Top 30 Harvest Reports are designed to identify high-yielding products at a single location. These reports are posted to www.firstseedtests.com within three days of harvest (on average) and provide product information, yield and agronomic results.

The Corn Grain and Soybean Top 30 Performance Summary reports (Figures 4 & 5) identify products that consistently deliver top performance across a region by averaging product results from all test locations. These corn and soybean regional reports display grain Yield (Bu/A), grain Moisture (%), Lodging (%) and Gross Income (\$/A) as well as Protein (%) and Oil (%) content in soybean only, averaged over all locations, presented alongside individual site yield results. This report is available shortly after the last Harvest Report for a region becomes available at www.firstseedtests.com.

In both reports, products are first ranked by Gross Income (\$/A). The 30 highest ranked Gross Income (\$/A) products are sorted by Yield (Bu/A) for public presentation. Nearly all tests include more than 30 products but only the Top 30 products are reported.

Figure 4

EARLY-SEASON TEST 93-98 Day CRM Top 30 of 48 tested											Results in BOLD are significantly above test average				
Company/Brand	Product/Brand	Technology	Relative Maturity	Yield (Bu/A)	Moisture (%)	Lodging (%)	Gross Income (\$/A)	Protein (%)	Oil (%)	For Sale	Defect	Poner	Ripen	Tomb	
Dairyland	DS3550AM	AM	95	219.9	24.1	1	\$759	1		272.2	188.1	148.6	220.6	270.0	
Thunder	6098 VT2P	VT2PB	98	219.5	24.0	1	\$756	2		249.7	224.0	157.1	206.1	260.5	

Figure 5

ALL-SEASON TEST MATURITY GROUP 3.3-4.3 Top 30 of 54 tested											Results in BOLD are significantly above test average				
Company/Brand	Product/Brand	Technology	Maturity	Yield (Bu/A)	Protein (%)	Oil (%)	Moisture (%)	Gross Income (\$/A)	Berlin	Forgh	Tunola	Vision			
Dyna-Gro	S37X589	RRX ST	3.7	65.8	34.7	18.9	12.5	\$592	68.8	61.3	64.5	68.5			
Great Heart	GS3713K2	RRX ST	3.7	65.5	34.5	19.1	13.7	\$590	67.8	63.7	64.8	64.8			
FS HiSoy	HS 38X70	RRX ST	3.8	63.3	34.8	18.9	12.4	\$570	66.0	61.2	62.0	63.9			
Pioneer	P36A18X	RRX	3.6	63.2	34.4	19.5	12.8	\$569	67.0	56.1	62.7	67.1			

STATISTICS REPORTED

Least Significant Difference (LSD) is provided on all replicated results to facilitate valid product comparisons. Statistically, the LSD value is the minimum difference needed between two products to declare that one product is greater than another. FIRST calculates LSD at the 10% level (p = 0.10). Product yield differences equal or greater than the LSD (0.10) value would have been greater one versus the other nine times out of 10 (90% probability). Typically, low LSD values indicate high-quality test results. However, keep in mind that LSD values increase as: test yield level increases, p values decrease [i.e. LSD (0.05) value > LSD (0.10) value > LSD (0.25) value] and as data variability increases. Just because LSD values are higher in some tests vs. others does not mean the results are low quality. Multiple factors have a role in LSD value magnitude.

Coefficient of Variance (CV) measures the average difference between the replications of a test entry, averaged for all the entries in the test, then divided by the average of all observations recorded and expressed as a percentage. Higher values indicate more unexplained variability in proportion to the test average than lower values. Researchers within the seed industry may drop yield data from consideration when CV's are above 15% because the unexplained variance is high or the yield level is low or both. Low yield levels at a test site do not estimate yield potential well, nor are there as many or as great a difference between hybrids and varieties compared to higher yield conditions.

Data Rejected — If a data table has "Data Rejected" stamped across it, we have deemed this data is highly variable and of very poor quality, typically due to weather or uncontrolled factors. Rejection decisions are based on statistical analysis of yield results. Data with very high CV and/or low F-test values (the ratio of variability between entry averages divided by the variability between entry replications) are often rejected.

PERFORMANCE MEASUREMENTS

- A Yield (Bu/A)** — Harvested grain weight and grain moisture are used to convert yield results to bushels per acre at 15% moisture (base moisture) for corn and 13% moisture for soybean. Grain shrinkage is additionally applied to product yields exceeding the base moisture.
- B Moisture (%)** — A calibrated electronic sensor measures moisture content of harvested grain.
- C Lodging (%)** — Estimated percentage of corn plants leaning more than 45° from vertical or stalks broken below the ear at harvest. Encompasses both stalk and root lodging. Estimated soybean plant leaning (0% = all plants vertical, 100% = all plants flat on the ground).
- D Gross Income (\$/A)** — Harvested crop value in dollars per acre is derived by multiplying crop yield and price per bushel minus drying costs, if any, to reach base moisture. Each Harvest Report and Performance Summary details specific crop price and drying costs.
- E Gross Income Rank** — Gross Income values are sorted from high to low then numbered consecutively (1, 2, 3...) from highest to lowest value. Ties are broken based on higher yield, lower lodging and lower moisture values.
- F Oil (%)** — Soybean oil content at 13% grain moisture determined by near infrared reflectance spectroscopy (NIR).
- G Protein (%)** — Soybean protein content at 13% grain moisture determined by NIR.

OTHER INFORMATION

Test Comments — The FIRST manager will provide comments and observations for each test site. This insight on weather patterns, plant health and soil conditions provide context to the data and underscore the challenges and opportunities the test entries were able to overcome or exploit.

Estimated Maturity (corn only) — Product maturity is determined by linear regression comparison of harvest grain moisture and company stated relative maturity (RM). Products with estimated maturity exceeding the test maximum by at least 1 RM are identified in italics. These products may have an unfair yield advantage over peers due to later maturity.

Bold Identified Means — These product means are significantly better than the test average for that measured parameter.

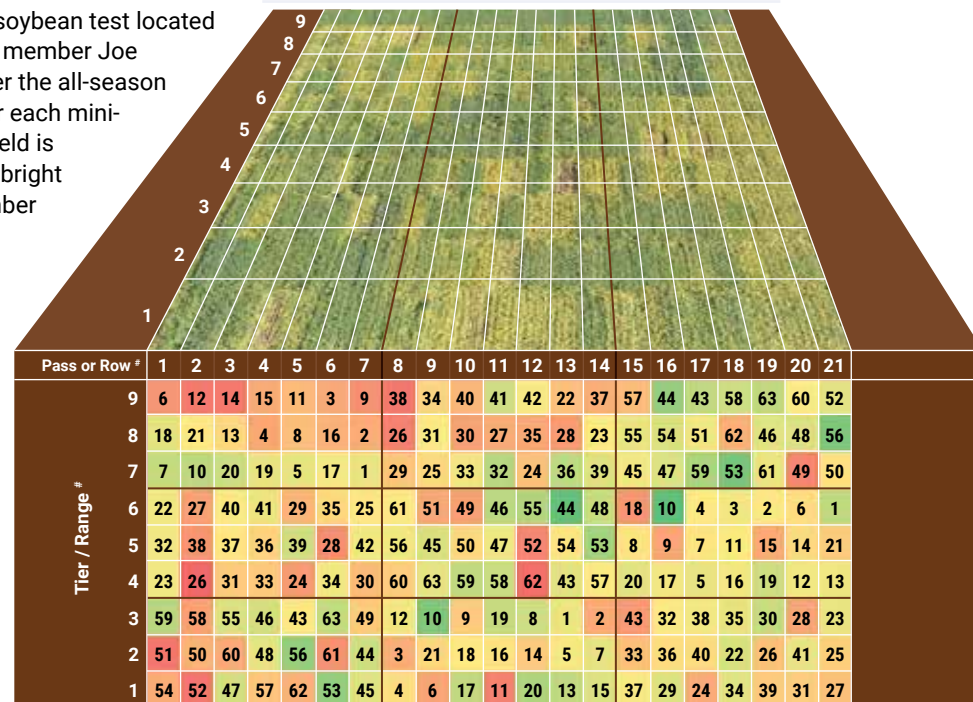
Check Product (CK) — When early- and full-season tests are conducted at a site, an identical check product is planted in both tests. Check yield results allow growers to comparatively view product performance in both early- and full-season tests. No product yield adjustments are made based on check performance.

Grower Comparison (GC) products — These products, identified with a "GC" product name suffix, are often supplied by growers hosting test sites and included when space permits. Grower comparison products allow direct comparison to products in our tests.

United Soybean Board (USB) Products (soybean only) — Products identified with a "S" product name suffix are funded by soybean checkoff dollars. This program strives to gather yield and grain composition results from genetics that otherwise would not be available.

TEST SITE HEAT MAP WITH AERIAL OVERVIEW FOR COMPARISON

The aerial image shows the 2018 FIRST soybean test located at Thomasboro, Illinois hosted by farmer member Joe Burke. The "heat-map" superimposed over the all-season test uses color to represent yield level for each mini-strip (10 ft wide by 45 ft long). Highest yield is bright green while lowest yield levels are bright red. Mini-strips containing the same number have identical seed products (3 mini-strips per product).



LEGEND VALUES	
92.6	Yield Maximum
76.9	Yield Average
65.2	Yield Minimum



Some See Fields, We See Data

2019

Corn & Soybean Performance Summaries

FOOTNOTES, TECHNOLOGIES & ABBREVIATIONS

CORN PRODUCT SUFFIX IDENTIFIERS

Code	Product Suffix Description
CK	Check product found in early- and full-season tests
GC	"Grower Comparison" product from farmer cooperator

CORN TECHNOLOGY (Tech.) ABBREVIATIONS

Code	Technology Description
3000GT	Agrisure® 3000GT (CB,RW,LL,GT)
3010	Agrisure® 3010 (CB,LL,GT)
3011A	Agrisure® Artesian® (CB,RW,LL,GT)
3110	Agrisure® Viptera® 3110 (Vip,CB,LL,GT)
3111	Agrisure® Viptera® 3111 (Vip,CB,RW,LL,GT)
3120	Agrisure® 3120 (CB,HX,LL,GT)
3122	Agrisure® 3122 (CB,HXX,RW,LL,GT)
3220	Agrisure® Viptera® 3220 (Vip,CB,HX,LL,GT)
3330	Agrisure® Viptera® 3330 (Vip,CB,HX,LL,GT)
A	Agrisure® Artesian®
AM	Optimum® AcreMaxv (YGCB,HX,LL,RR2)
AMT	Optimum® AcreMax® TRIssect (HX,RW,LL,RR2)
AMX	Optimum® AcreMax® Xtra (YGCB,HXT,LL,RR2)
AMXT	Optimum® AcreMax® Xtreme (YGCB,HXT,RW,LL,RR2)
AQ	Optimumv AQUAMax®
CB	Agrisure® Corn Borer
DG	Genuity® DroughtGard®
E	Enlist™ (2,4-D, glyphosate, fop herbicide tolerance)
GT	Agrisure® GT
HX	Herculex® 1, contains LL
HXRW	Herculex® Rootworm, contains LL
HXT	Herculex® Xtra (HX,HXRW,LL)
LL	LibertyLink®
None	conventional corn
OI	Optimum® Intrasect®, YHR (YGCB,HX,LL,RR2)
OIX	Optimum® Intrasect® Xtra, YXR (YGCB,HXT,LL,RR2)
OIXT	Optimum® Intrasect® Xtreme (YGCB,HXT,RW,LL,RR2)
PC	PowerCore™ (HX, VT2P)
RR2	Roundup Ready® 2 Corn
RW	Agrisure® Rootworm
STX	SmartStax® (VT3P,HXT,RR2,LL)
Tre	Genuity® Trecepta™
VT2P	Genuity® VT Double PRO®
VT3P	Genuity® VT Triple PRO®
YGCB	YieldGard® Corn Borer

CORN REFUGE BLEND*(RIB) SEED PRODUCTS

Code	Refuge Blend Descriptions
N	No
Y	Yes, refuge included in test product

*The genetics of the refuge component in a product may vary.

SOYBEAN PRODUCT SUFFIX IDENTIFIERS

Code	Product Suffix Description
§	United Soybean Board sponsored entry
CK	Check product found in early- and full-season tests
GC	"Grower Comparison" product from farmer cooperator

SOYBEAN TECHNOLOGY (Tech.) ABBREVIATIONS

Code	Technology Description
E3	Enlist E3™
G27	LibertyLink® GT27TM
LL	LibertyLink®
None	Conventional, non-GMO
RR	Glyphosate tolerant
RR2Y	Genuity® Roundup Ready 2 Yield®
RRX	Roundup Ready 2 Xtend®
ST	Sulfonyleurea herbicide tolerant

SOYBEAN CYST NEMATODE (SCN) RESISTANCE RATING

Code	Soybean Cyst Nematode Description
NA	Information not available
S	Susceptible
MR	Moderate resistance
R	Resistant

Finding the Right Data is Just a Process of Elimination

These *Performance Summaries* compile the data from individual FIRST *Harvest Reports* in 2019 (which can be found at www.firstseedtests.com) and feature new genetics and genetic technologies that have not yet been independently reviewed. Seed tests are designed to combine all the data in a region so that the averages are statistically significant. Yield averages from each of the test sites are also included so that the reader can determine consistency for any one hybrid or variety.

FOR GROWERS

Don't get overwhelmed by all the data in this book, 99% of it isn't applicable to you. Most growers will only need to look at 2 pages in the corn section and 2 pages in the soybean section. Within those pages, a grower may only be interested in 3-5 products.

Using this guide is just a simple process of elimination. Follow the steps below to quickly get to the product data most relevant for your operation. Use these in collaboration with your seed sales consultant.

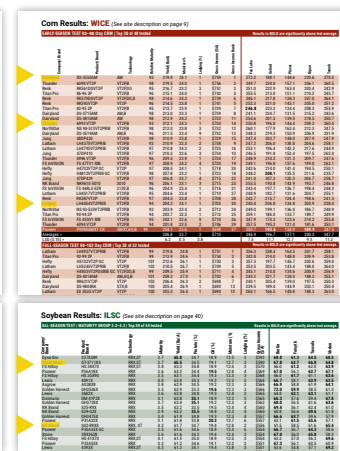
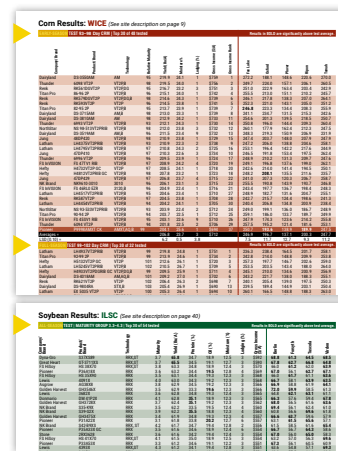
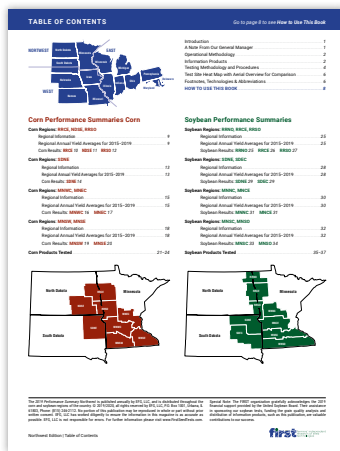
FOR SEEDSMEN, SEED CONSULTANTS AND FARM MANAGERS

Follow the same instructions for "Growers" above and repeat for every applicable region in your area of sales responsibility. Use these data tables as a resource when assisting your customers on an individual basis.

FOR AGRONOMISTS AND SALES MANAGEMENT

These tables are good for identify products that are off to a good start. While not yet being tested over multiple years in the FIRST program, products showing superior performance in independent trials this year are likely to have a strong performance record while being developed by seed companies. Together they build a strong case for positioning the product for sale where most competitive.

- This book is divided by crop, region and maturity. Go to the maps on the inside cover to determine what table interests you and turn to the applicable page.
- At the regional summary page, select data table based on maturity (ultra-early-, early-, full-, or all-season).
- Starting on the left side, eliminate products not of interest based on brand preference, technology, maturity, lodging and yield average.

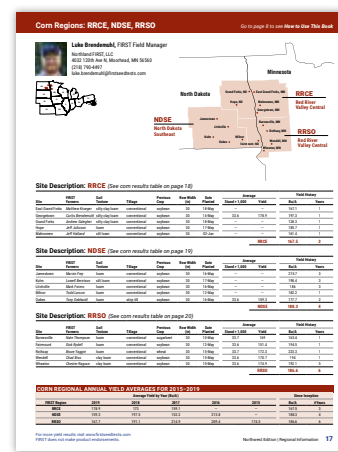
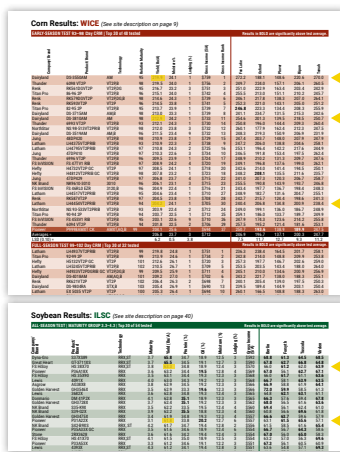


- Continue eliminating products not of interest by looking at the right side of the table based on yield consistency, high and low yields, and yields from farms that do not apply to your grain operations.

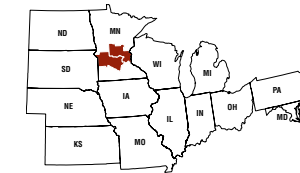
- Compare the growing conditions found in the site description tables located at the corresponding Corn/Soybean Region page immediately preceding the regional tables for additional insight.

- The remaining products are those that meet your objectives. Use these products as a performance standard when visiting with your seed sales professional.

(Optional) Compare FIRST data with other product data or recommendations you're considering. The more often the products you've highlighted in the FIRST table(s) come up at the top in other data products or recommendations, the more confident you can be that those products are your best choices.



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Site Description: MNWC (See corn results table on page 10)

Site	FIRST Farmers	Soil Texture	Tillage	Previous Crop	Row Width (in)	Date Planted	Average		Yield History	
							Stand x 1,000	Yield	Bu/A	Years
Clinton	Doug Nelson	loam	conventional	soybean	30	30-May	—	—	199.5	13
Kerkhoven	Rod Lindquist	loam	conventional	soybean	30	17-May	32.4	210.1	202.9	3
Lester Prairie	Nathan Ide	loam	conventional	soybean	30	07-May	34.1	199.2	195.2	6
Sedan	Michael Stamer	sandy loam	conventional	soybean	30	06-May	34	227.1	—	new site
Starbuck	Matt Moe	sandy loam	conventional	soybean	30	13-May	34	212.7	209	2
Winthrop	Neil Rasmussen	clay loam	conventional	soybean	30	01-Jun	34	187.9	207.5	3
							MNWC	199.2	18	

Site Description: MNEC (See corn results table on page 11)

Site	FIRST Farmers	Soil Texture	Tillage	Previous Crop	Row Width (in)	Date Planted	Average		Yield History	
							Stand x 1,000	Yield	Bu/A	Years
Albany	Ray Beutz	loam	conventional	corn	30	15-May	33.1	213.9	208.3	2
Clear Lake	Ryan Peterson	sand	conventional	soybean	30	07-May	33.8	212.9	225.1	1
Foley	Roy Schneider	loam	strip till	soybean	30	13-May	33	207.3	228.4	1
Milaca	Kevin Schreur	silt loam	conventional	corn	30	03-Jun	—	—	190.2	2
Royalton	Kenny Kasella	loamy sand	conventional	soybean	30	05-May	33	212.3	—	new site
Taylor Falls	Sandberg Farms	loam	conventional	soybean	30	17-May	33.4	202.7	208.2	2
							MNEC	200.9	3	

CORN REGIONAL ANNUAL YIELD AVERAGES FOR 2015-2019

FIRST Region	Average Yield by Year (Bu/A)					Since Inception	
	2019	2018	2017	2016	2015	Bu/A	#Years
MNWC	207.4	212.8	204.1	210.6	202.7	199.2	18
MNEC	209.8	214.9	180.3	—	—	200.9	3

Table with columns: Product/Brand, Technology, Maturity, RIB, Region(s) Tested. Rows include 2A872, 2B861, 2B862, 3A891, 3B902, 5A010, 5A023-RIB, 5A982-RIB, 5B984, 6A050-RIB, 6A063, 6B071-RIB, 6D042, 6D054.

Renk Seed Co. www.renkseed.com 6809 Wilburn Road, Sun Prairie, WI 53590 (800) BUY-RENK



Table with columns: Product/Brand, Technology, Maturity, RIB, Region(s) Tested. Rows include RK264RR, RK278VT2P, RK287VT2P, RK312VT2P, RK408VT2P, RK433VT2P, RK561DGV2P, RK579DGV2P, RK587VT2P, RK593VT2P, RK604SSTX, RK608DGV2P, RK621VT2P, RK626SSTX, RK642VT2P, RK710DGV2P, RK717SSTX, RK737SSTX.

Terral Seed, Inc. www.terralseed.com 117 Ellington Dr. Rayville, LA 71269 (800) 551-4852



Table with columns: Product/Brand, Technology, Maturity, RIB, Region(s) Tested. Rows include REV 1247AM, REV 1587AM.

Stine Seed Company www.stinseed.com 22555 Laredo Trail, Adel, IA 50003 (800) 362-2510



Table with columns: Product/Brand, Technology, Maturity, RIB, Region(s) Tested. Rows include 9140-G, 9212-10.

Thunder Seed, Inc. www.thunderseed.com 806 Center Avenue W, Dilworth, MN 56529 (888) 684-8633



Table with columns: Product/Brand, Technology, Maturity, RIB, Region(s) Tested. Rows include 6004 VT2P, 6081 3220, 6085 VT2P, 6090 3120, 6094 VT2P, 6098 VT2P, 6595 VT2P, 6782 VT2P.

Table with columns: Product/Brand, Technology, Maturity, RIB, Region(s) Tested. Rows include 6789 VT2P, 6791 VT2P, 6888 VT2P, 6902 VT2P, 6905 VT2P, 6983 VT2P, 6986 VT2P, 6987 VT2P, 6992 VT2P, 6993 VT2P, 6996 VT2P, 6999 VT2P.

Titan Pro SCI, Inc. www.titanprosci.com 1301 S 24th Street, Clear Lake, IA 50428 (641) 357-7283



Table with columns: Product/Brand, Technology, Maturity, RIB, Region(s) Tested. Rows include 70-98, 82-04 2P, 82-90 2P, 82-95 2P, 84-01, 84-03 2P, 85-96, 86-96 2P, 90-94 2P, 91-00, 91-02, 91-07, 92-99 2P, 96-06 2P, TP 40-03, TP 70-06, TP 75-01 SS.

Albert Lea Seed House, Inc. www.alseed.com 1414 W Main Street, PO Box 127, Albert Lea, MN 56007 (800) 352-5247



Table with columns: Product/Brand, Technology, Maturity, RIB, Region(s) Tested. Rows include 42-05, 44-98, 46-96, 51-04, 52-00, 55-02, 84-05, 99-00.

Wyffels Hybrids, Inc. www.wyffels.com 13344 US Highway 6, Geneseo, IL 61254 (800) 369-7833

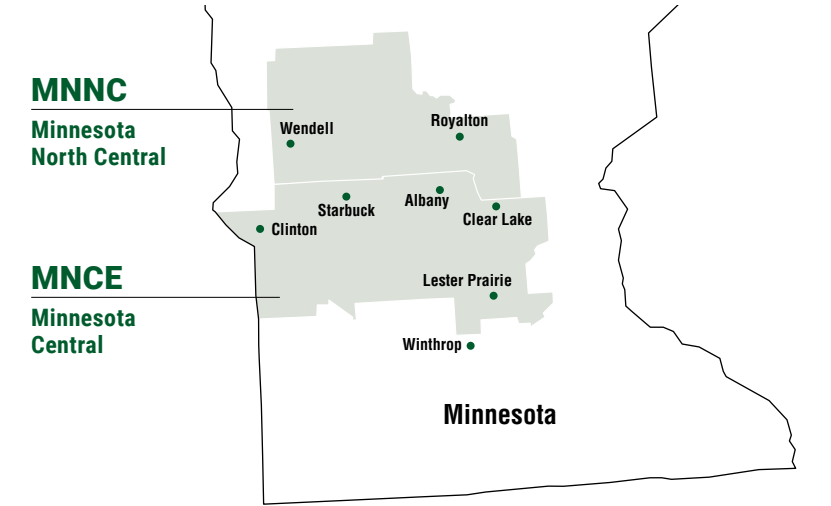
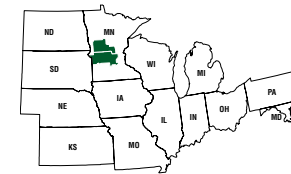


Table with columns: Product/Brand, Technology, Maturity, RIB, Region(s) Tested. Rows include W1636RIB, W2196RIB, W2236, W2506RIB, W4196RIB, W4358RIB, W4638, W5086, W5516RIB, W5626RIB.



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Site Description: MNNC (See soybean results table on page 26)

Table with columns: Site, FIRST Farmers, Soil Texture, Tillage, Previous Crop, Row Width (in), Date Planted, Average Stand x 1,000, Average Yield, Yield History Bu/A, #Years. Rows include Albany, Clear Lake, Royalton, Wendell.

Site Description: MNCE (See soybean results table on page 26)

Table with columns: Site, FIRST Farmers, Soil Texture, Tillage, Previous Crop, Row Width (in), Date Planted, Average Stand x 1,000, Average Yield, Yield History Bu/A, #Years. Rows include Clinton, Lester Prairie, Starbuck, Winthrop.

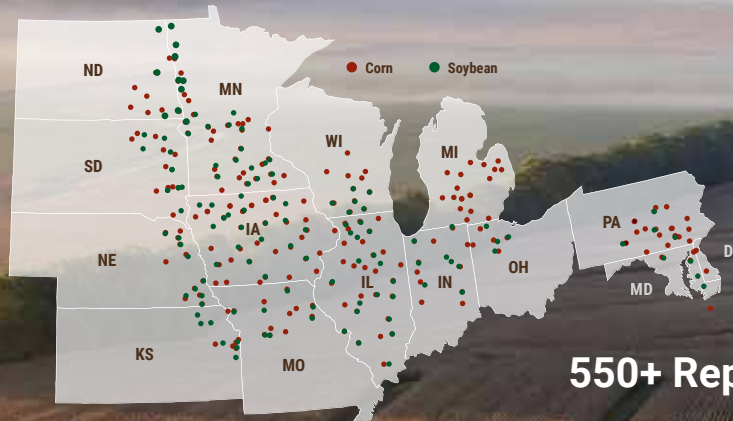
SOYBEAN REGIONAL ANNUAL YIELD AVERAGES FOR 2015-2019

Table with columns: FIRST Region, 2019, 2018, 2017, 2016, 2015, Average Yield by Year (Bu/A), Since Inception Bu/A, #Years. Rows include MNNC, MNCE.

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Some See Fields, We See Data

Geography



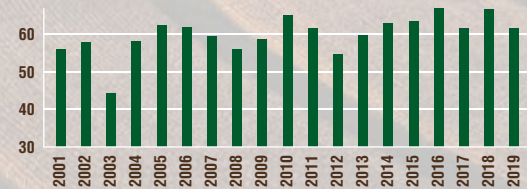
2019
15 States
340+ Farms
550+ Replicated Tests

+ Time

23 Years of Corn Grain Data



18 Years of Soybean Data

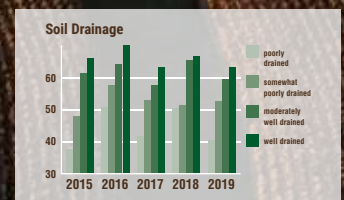
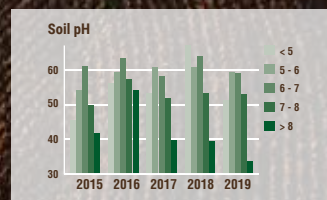
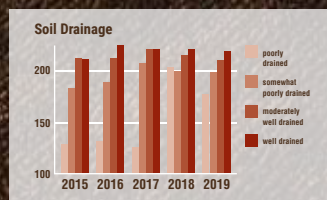
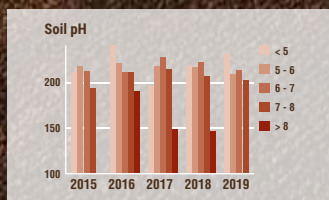


+ Experience

850,000+
Corn Observations

265,000+
Soybean Observations

= Powerful Data



Unbiased, Accurate Yield Testing, Every Time