

Standouts across the state

MFA's replicated plot program provides a roadmap for 2027 hybrid and variety selection

After the challenges of the 2026 growing season, thinking about 2027 may be the last thing on a grower's mind. Excessive rainfall led to narrow planting windows, flooded fields, and difficult replant and herbicide application decisions across much of Missouri. While this year's crop is still the top priority, it's never too early to start evaluating options for next season.

That's where our 2025 variety trial data comes in. To provide meaningful recommendations, MFA's agronomy research is conducted across a wide range of locations throughout Missouri. Evaluating products in diverse environments allows us to see how hybrids and varieties perform under varying conditions and helps identify products that may be a good fit for operations similar to your own. By looking at performance across the state, growers can make more informed decisions about the genetics best suited for their farm.

In 2025, conditions allowed for timely planting of most of our corn and soybean trials, followed by excessive rainfall during the first half of the growing season. By contrast, the second half was largely without rain, which caused some of the earlier-planted corn and soybeans to complete critical reproductive stages prior to the dry conditions that, for much of the state, started in August and continued through harvest. To sum up the 2025 growing season, Missouri went from above-average rainfall during April, June and July to the fourth-driest August and the fourth-warmest fall on record, according to the University of Missouri.

Site background

All of our variety trial sites are on a corn-soybean rotation. Corn plots were planted at 32,500 seeds per acre, and all the soybeans were planted at 140,000 seeds per acre. Planting dates varied by location, but conventional tillage was used in every case. Figure 1 lists the locations, planting date, tillage and soil type for our corn hybrid trials, and Figure 2 shows the same information for our soybeans. In the accompanying data tables for MorCorn and MorSoy, not every site is listed but all are factored into overall yield averages.

Story by
Trace Thompson

Photos by
MFA Communications



MFA employees and industry partners gathered for the 2025 Training Camp field day, held July 16, to learn about the company's latest agronomic research.



FIG. 1: Corn

LOCATION	PLANTING DATE	TILLAGE	SOIL SERIES
Lexington	3/25/2025	Conventional	Macksburg silt loam
Lamar	3/26/2025	Conventional	Parsons silt loam
Salisbury	4/11/2025	Conventional	Tina silt loam
Kirksville	4/13/2025	Conventional	Armstrong loam
Tipton	4/15/2025	Conventional	Maplewood silt loam
Chillicothe	4/16/2025	Conventional	Crestmeade silt loam
Albany	4/16/2025	Conventional	Grundy silt loam
Boonville	5/7/2025	Conventional	Nodaway silt loam
Columbia	5/14/2025	Conventional	Putnam silt loam

FIG. 2: Soybean

LOCATION	PLANTING DATE	TILLAGE	SOIL SERIES
Albany	5/6/2025	Conventional	Zook silty clay loam
Lexington	5/9/2025	Conventional	Sibley silt loam
Chillicothe	5/12/2025	Conventional	Crestmeade silt loam
Salisbury	5/12/2025	Conventional	Tina silt loam
Kirksville	5/12/2025	Conventional	Leonard silt loam
Columbia	5/13/2025	Conventional	Putnam silt loam
Tipton	5/15/2025	Conventional	Maplewood silt loam

MorCorn hybrids

In 2025, we tested 48 MorCorn and partner brand hybrids, including 15 experimental products to consider adding to our portfolio. The data tables on the next page only reflect our MorCorn hybrids, but all tested partner brands were included in final averages.

Advancing to our MorCorn lineup is XP 2553, which will join our portfolio as MC 4025 PCE. This hybrid averaged 10 bushels per acre more than both MC 3809 VT2P and MC 4020 VZ. Incorporating the PowerCore Enlist trait and allowing for postemergence applications of Enlist One, MC 4025 PCE adds more flexibility to a grower's herbicide program.

The 2025 season marked the fourth in a row that MC 4412 TRE solidified its place as a go-to hybrid with plenty of yield potential. MC 4412 TRE continued to prove its ability to fit into any environment as a reliable mid-season hybrid. Out of the four 114-day relative maturity hybrids we currently offer, MC 4412 TRE averaged 6 bushels per acre higher than the other three.

MC 4820 TRE proved to be the top contender out of all the late-season varieties tested, averaging 254 bushels per acre overall in the 2025 season—18 bushels higher than MC 4652 VT2P, our other late-season hybrid. MC 4820 TRE includes the Trecepta trait, which offers improved control of certain insects over the VT2P trait.



Above: The site of MFA's annual Training Camp field day is just east of Columbia, Mo., situated on 27 acres planted with conventional tillage in a corn-soybean rotation.

Left: The experimental soybean variety, XP 2535, tested in last year's plots performed well enough to be added to the MorSoy lineup as MS 3565 E. The new variety outperformed the other nine Mid-Group 3 soybeans tested across all eight sites in 2025.

FIG. 3: MorCorn Hybrid Data

EARLY SEASON	MATURITY	bushels per acre						
		ALBANY	BOONVILLE	COLUMBIA	KIRKSVILLE	SALISBURY	TIPTON	LEXINGTON
MC3617	106	217	216	182	228	225	244	220
MC3809	108	222	207	194	260	232	249	236
XP2550	109	247	245	206	271	256	252	241
XP2551	109	240	235	195	285	266	261	214
XP2501	110	254	246	208	267	269	266	259
XP2552	110	224	223	197	271	251	240	188
XP2553	110	231	232	190	271	259	262	225
MC4020	110	204	212	184	265	243	251	232

MID SEASON	MATURITY	bushels per acre						
		ALBANY	BOONVILLE	COLUMBIA	KIRKSVILLE	SALISBURY	TIPTON	LEXINGTON
XP2530	111	236	234	208	293	263	256	244
XP2531	112	234	229	193	260	239	241	215
XP2560	112	237	214	181	290	273	254	249
XP2561	112	241	224	190	279	255	240	231
MC4311	113	220	211	202	263	244	259	246
MC4390	113	223	229	197	266	266	278	255
XP2510	114	264	252	208	287	271	283	267
XP2511	114	235	234	184	288	267	271	273
XP2540	114	227	225	196	278	251	258	247
MC4457	114	226	237	200	287	246	255	250
MC4412	114	231	224	209	279	252	276	254

LATE SEASON	MATURITY	bushels per acre						
		ALBANY	BOONVILLE	COLUMBIA	KIRKSVILLE	SALISBURY	TIPTON	LEXINGTON
XP2520	115	261	224	178	264	244	290	275
MC4652	116	218	199	184	274	260	243	252
XP2521	117	232	232	180	277	257	247	274
XP2570	117	234	187	178	283	244	235	236
MC4820	118	231	229	165	286	287	252	302



MorSoy varieties

In 2025, we tested 58 MorSoy and partner brand soybean varieties across Missouri, including 13 experimental products that could be incorporated into our lineup. The data tables on the next page only show our MorSoy varieties, but all tested partner brands were factored into final yield averages.

The experimental variety, XP 2535, has been advanced to the MorSoy family as MS 3565 E. It outperformed the other nine Mid-Group 3 soybean varieties tested across all eight sites. Averaging 71 bushels per acre overall, MS 3565 E also managed to produce 80 bushels per acre or more at four of the eight testing sites and averaged 87 bushels at two locations.

Participating in MFA's Training Camp field day allows employees such as Ryan Brooks, left, senior vice president of retail strategy, and Matt Hill, district sales manager, to see the company's agronomic research firsthand and make better-informed decisions and recommendations.





In its second year in our MorSoy lineup, MS 4199 continued to prove its reliability as a solid mid-season soybean, averaging 69 bushels per acre for the season and outperforming all of the early Group 4 soybeans currently in our portfolio. MS 4199 is also a 4.1 relative maturity soybean with a shorter stature that could be less prone to lodging. This variety is best suited for sandy and loam soil types and excels in high-yield environments.

MS 3901 E made it through its first season in our MorSoy lineup and demonstrated its ability to consistently yield with some of our other high performers, such as MS 3830 E and MS 4199 E. Both MS 3901 E and MS 3830 E averaged 69 bushels per acre in 2025, demonstrating the versatility our MorSoy lineup offers to fit any grower's preferences or needs.

We look forward to sharing data from the 18 different research sites where our 2026 variety trials are underway. Look for reports from this year's research in Today's Farmer, at mfa-inc.com and MFA social channels, and visit your local MFA agronomy experts to learn more about those results when they become available. **F**



MFA's research goes well beyond variety trials to include studies of crop protection, fertility, pest management and cultural practices.

FIG. 4: MorSoy Variety Data

MID 3	MATURITY	bushels per acre					
		ALBANY	COLUMBIA	KIRKSVILLE	LEXINGTON	SALISBURY	TIPTON
XP2534	3.4	61	43	79	83	82	61
XP2535	3.5	61	42	80	85	87	64
MS 3601PE	3.6	59	38	73	75	79	60
MS 3792E	3.7	57	40	74	79	76	58

LATE 3	MATURITY	bushels per acre					
		ALBANY	COLUMBIA	KIRKSVILLE	LEXINGTON	SALISBURY	TIPTON
MS 3830E	3.8	70	40	78	70	83	62
XP3999	3.9	57	39	82	80	81	60
XP2639	3.9	57	42	81	81	82	59
XP2539	3.9	60	39	79	80	82	65
MS 3924E	3.9	63	37	69	72	77	56
MS 3901E	3.9	62	35	82	79	82	62
MS 3990XF	3.9	N/A	35	73	76	77	55
MS 3965XF	3.9	N/A	37	78	84	80	59

EARLY 4	MATURITY	bushels per acre					
		ALBANY	COLUMBIA	KIRKSVILLE	LEXINGTON	SALISBURY	TIPTON
MS 4000E	4	61	38	74	76	75	54
MS 4199E	4.1	66	37	77	79	82	59
MS 4130XF	4.1	N/A	47	74	74	71	56
XP2642	4.2	61	39	76	80	77	52
XP2542	4.2	59	40	75	78	82	55
MS 4200PXF	4.2	N/A	53	82	89	78	59
MS 4340E	4.3	62	42	79	76	80	54
MS 4492E	4.4	55	45	70	75	73	52

LATE 4	MATURITY	bushels per acre					
		ALBANY	COLUMBIA	KIRKSVILLE	LEXINGTON	SALISBURY	TIPTON
XP4555	4.5	N/A	39	N/A	77	N/A	56
MS 4660E	4.6	N/A	36	N/A	78	N/A	52
XP4666	4.6	N/A	39	N/A	80	N/A	55
XP2646	4.6	N/A	37	N/A	85	N/A	55
XP2546	4.6	N/A	38	N/A	78	N/A	56
MS 4623XF	4.6	N/A	38	N/A	79	N/A	55
MS 4626XF	4.6	N/A	36	N/A	80	N/A	55
MS 4690RK	4.6	N/A	39	N/A	82	N/A	54
MS 4830E	4.8	N/A	36	N/A	81	N/A	52
XP 2648	4.8	N/A	36	N/A	79	N/A	60
MS 4870XF	4.8	N/A	31	N/A	77	N/A	57
MS 4891XF	4.8	N/A	34	N/A	77	N/A	54
XP2549	4.9	N/A	34	N/A	71	N/A	52
MS 4920E	4.9	N/A	37	N/A	83	N/A	56

As the earliest hybrid tested in the MorCorn lineup last year, MC 3617 has a 106-day maturity and averaged nearly 219 bushels per acre across seven research sites in Missouri.