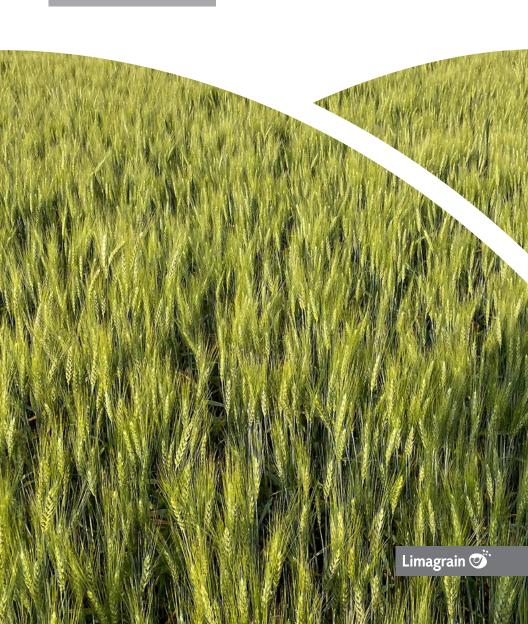
CENTRAL PLAINS SEED GUIDE



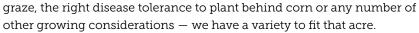
EDITION ONE



Nice to meet you!

I've been part of the Limagrain Cereal Seeds team for a while now, and I'm even more excited for the future than I was on day one.

At LCS, we're focused on improving wheat varieties for the region through breeding and testing right here in the Central Plains. We develop wheats that match the agronomic needs and specific conditions of local fields. Whether you need an herbicideresistant line to help with grassy weed control, a high-yielding variety you can



Our Central Plains research team tests thousands of varieties across the area every year, looking for the next great variety that fits the needs of wheat growers like you.

Having spent my life in the heart of the Central Plains, I understand the variability and unique challenges faced by the growers here. It's a great feeling to be part of a farmer-owned company that values local product development, listens to growers and brings products to market that help overcome these challenges.

The varieties in this seed guide have been proven to perform at a high level across various conditions and growing systems. Read on for the data, and check out our up-and-coming genetics in the back of the guide.

My goal is to help you find the best products to fit your agronomic needs and production system — so you can get the most from your wheat crop. I look forward to working with you!

Dan Dall

Regional Commercial Manager

316.452.3505

■ daniel.dall@limagrain.com



Bred to thrive

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Agronomic, disease resistance and quality scores in this guide are based on the most recent data available at the time of publication, Dec. 1, 2023. Visit LimagrainCerealSeeds.com year-round to see the latest trial data.

Award-winning wheat

LCS varieties led the dryland winter wheat pack in the National Wheat Yield Contest (NWYC) this year. Our farmers won Bin Buster and 1st Place in the dryland winter wheat category, and they nabbed 1st, 2nd and 4th Place in dryland wheat winter increase — plus 10 state-level wins.

All NWYC national award recipients won a trip to the 2024 Commodity Classic in Houston, Texas, and we are looking forward to celebrating them at the National Wheat Foundation event.

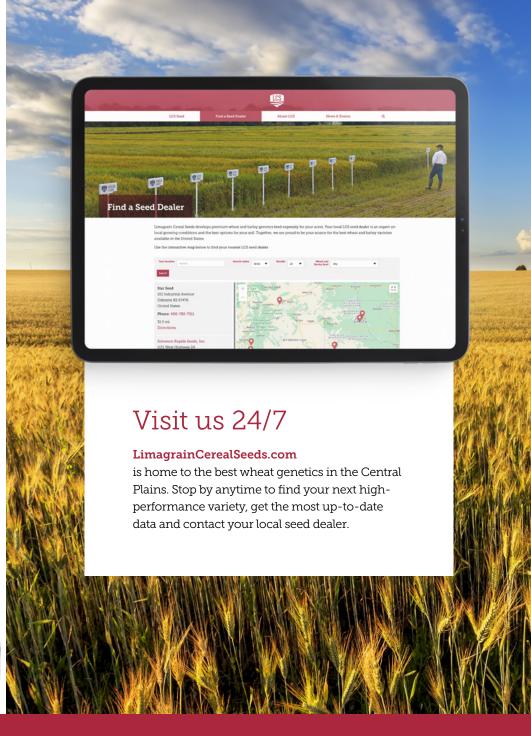
We want to celebrate you

Are you scoring big yields with your LCS seed? Don't keep your big returns to yourself! Enter the National Wheat Yield Contest — free. LCS will pay the fee for any LCS wheat entry. Bragging rights, a shiny LCS award and a trip to the Commodity Classic could be yours.

2024 NWYC winter wheat entries are due in mid-May. Get the details at **YieldContest.WheatFoundation.org**







2022 Central Plains NWYC winners and seed dealers at the 2023 Commodity Classic: Dylan Lindsey, Cheryl Lindsey, Tom Hill with DT Farms and Casey Cantwell.



Racing to victory



Excellent yield potential



Well-rounded disease protection



Good tolerance to Fusarium head blight



Broad area of adaptation

HARD RED WINTER WHEAT

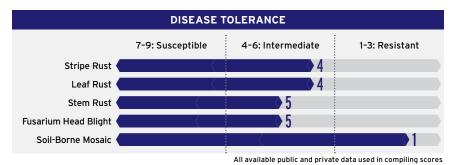
LCS Runner



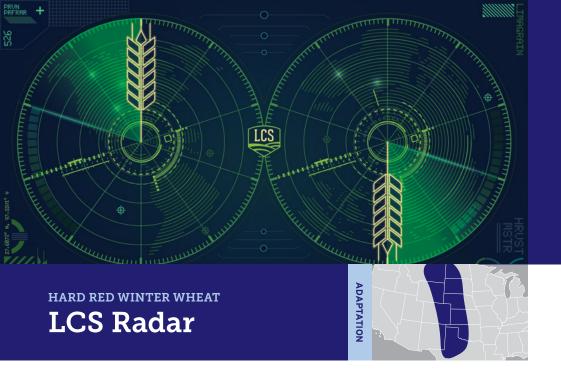
		YIELD		
	BU/AC	LCS Runner Trial Avg.	MEAN▶	
2022 KSU Dryland Larned, KS	54 48	_		113% of mean
2022 KSU Dryland Newton, KS	57 56			101% of mean
2022 KSU Dryland Hutchinson, KS	77 67			115% of mean
2022 OSU Regional Chickasha, OK	73 71		>	103% of mean
2022 OSU Regional Lahoma, OK	78 76		\	103% of mean
2023 LCS Trial Wichita, KS	43 37)	116% of mean
2023 LCS Trial Watonga, OK	59		→	134% of mean
2023 LCS Trial Tonkawa, OK	47 42			112% of mean

AGRONOMIC FEATURES						
	LCS Runner SY Monument WB 4401 KS Hamilton Showd					
Test Weight	Very Good	Good	Good	Good	Average	
Protein %	Above Avg.	Average	Average	Average	Average	
Winter-Hardiness	Excellent	Excellent	Good	Good	Good	
Heading (Julian)	Medium	Medium-Late	Medium-Early	Medium	Medium-Late	
Plant Height (in.)	Medium-Tall	Medium-Tall	Medium-Short	Medium	Medium	
Straw Strength	Very Good	Average	Good	Average	Average	

Data Sources: 2024 Wheat Varieties for Kansas and the Great Plains, 2023 LCS CP Y4 Master, 2023 Carnige



END-USE QUALITY						
Overall Quality	Milling Quality					
Acceptable	Acceptable	Acceptable	Most Desirable			



YIELD BU/AC ♦ LCS Radar ♦ Trial Avg. **MEAN**▶ 2023 107% of mean 102 LCS Trial 95 Imperial, NE 2023 104 113% of mean LCS Trial 92 Garden City, KS 2023 138% 51 LCS Trial 37 of mean Russell, KS 2023 51 151% **KSU** Dryland 34 of mean Tribune, KS 2023 40 106% KSU Dryland of mean 37 Ellsworth, KS 86 118% **KSU** Irrigated 73 of mean Garden City, KS 2023 39 114% KSU Dryland 34 of mean Russell, KS 2023 **77** 140% KSU Dryland 55 of mean Colby, KS

For all available data, visit LimagrainCerealSeeds.com

Put big yield on your radar



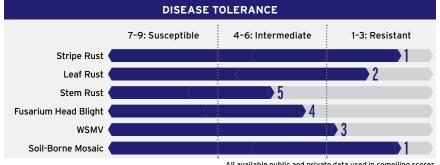






AGRONOMIC FEATURES							
	LCS Radar SY Monument WB 4401 KS Hamilton Showdown						
Test Weight	Average	Good	Good	Good	Average		
Protein %	Average	Average	Average	Average	Average		
Winter-Hardiness	Very Good	Excellent	Good	Good	Good		
Heading (Julian)	Medium	Medium-Late	Medium-Early	Medium	Medium-Late		
Plant Height (in.)	Medium-Tall	Medium-Tall	Medium-Short	Medium	Medium		
Straw Strength	Very Good	Average	Good	Average	Average		

Data Sources: 2024 Wheat Varieties for Kansas and the Great Plains, 2023 LCS CP Y4 Master, 2023 Carnige



All available public and private data used in compiling scores
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END-USE QUALITY						
Overall Quality Baking Quality Flour Protein Milling Quality						
Desirable	Desirable	Desirable	Desirable			



HARD RED WINTER WHEAT LCS Julep

YIELD BU/AC ♦ LCS Julep ♦ Trial Avg. **MEAN**▶ 2022 104% of mean 36 KSU Dryland 34 St. John, KS 2022 82 113% KSU Dryland of mean 73 Russell, KS 2023 37 109% KSU Dryland 34 of mean Russell, KS 2023 29 114% **KSU** Dryland 25 of mean St. John, KS 2023 44 113% **OSU Regional** of mean 39 Cherokee, OK 2023 80 104% **OSU** Regional 77 of mean Chickasha, OK 2023 68 106% **OSU Regional** 64 of mean Lahoma, OK 2023 80 111% **UNL Rainfed** 73 of mean Deuel County, NE

For all available data, visit LimagrainCerealSeeds.com

Wheat you can bet on



National Wheat Yield Contest winner



Large head size and good tillering ability

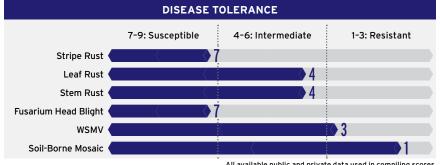




Broadly adapted throughout the Central Plains

AGRONOMIC FEATURES							
	LCS Julep SY Monument WB 4401 KS Hamilton Showdown						
Test Weight	Very Good	Good	Good	Good	Average		
Protein %	Above Avg.	Average	Average	Average	Average		
Winter-Hardiness	Excellent	Excellent	Good	Good	Good		
Heading (Julian)	Late	Medium-Late	Medium-Early	Medium	Medium-Late		
Plant Height (in.)	Medium	Medium-Tall	Medium-Short	Medium	Medium		
Straw Strength	Very Good	Average	Good	Average	Average		

Data Sources: 2024 Wheat Varieties for Kansas and the Great Plains, 2023 LCS CP Y4 Master, 2023 Carnige



All available public and private data used in compiling scores

END-USE QUALITY						
Overall Quality Baking Quality Dough Properties Milling Quality						
Desirable Desirable		Desirable	Acceptable			



Let your yields soar



Consistent dryland and irrigated performance



Very good stripe rust, FHB and Hessian fly tolerance

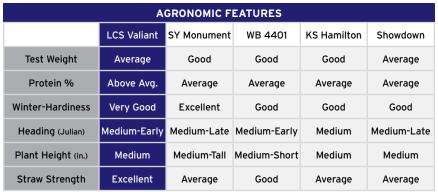




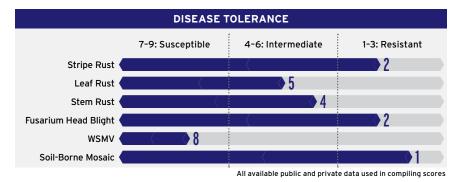
LCS Valiant



		YIELD		
	BU/AC ♦ LCS V	Valiant 🌘 Trial Avg.	MEAN▶	
2022 KSU Untr. Dryland Wellington, KS	51 49		\	103% of mean
2022 KSU Dryland Hillsboro, KS	90 85		()	105% of mean
2022 OSU Balko, OK	40 36		(111% of mean
2023 LCS Trial Imperial, NE	99 95		>	104% of mean
2022 LCS Trial Carnegie, OK	43			109% of mean
2022 LCS Trial Wellington, KS	50 48			104% of mean
2022 LCS Trial Russell, KS	73 67			109% of mean
2023 LCS Trial Enid, OK	98 94			104% of mean



Data Sources: 2024 Wheat Varieties for Kansas and the Great Plains, 2023 LCS CP Y4 Master, 2023 Carnige



END-USE QUALITY						
Overall Quality Baking Quality Dough Properties Milling Quality						
Desirable	Desirable	Desirable	Acceptable			



Bred for the long haul









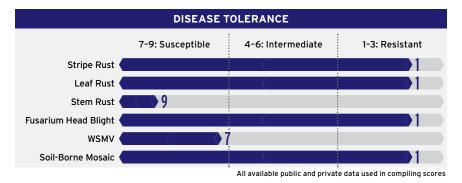
LCS Chrome



		YIELD		
	BU/AC	LCS Chrome Trial Avg.	MEAN▶	
2023 OSU Dryland Walters, OK	46 44			105% of mean
2022 KSU Dryland Assaria, KS	50 49			102% of mean
2022 KSU Dryland Newton, KS	62 56			110% of mean
2022 KSU Dryland Wellington, KS	50 49			102% of mean
2022 KSU Dryland Ellsworth, KS	74 68			108% of mean
2021 OSU Dryland Chickasha, OK	52 32			163% of mean
2021 OSU Dry Int. Mgmt. Chickasha, OK	72 52		\bigcirc	138% of mean
2021 OSU Dryland Keyes, OK	27 27			100% of mean

AGRONOMIC FEATURES						
	LCS Chrome	SY Monument	WB 4401	KS Hamilton	Showdown	
Test Weight	Good	Good	Good	Good	Average	
Protein %	Above Avg.	Average	Average	Average	Average	
Winter-Hardiness	Very Good	Excellent	Good	Good	Good	
Heading (Julian)	Late	Medium-Late	Medium-Early	Medium	Medium-Late	
Plant Height (in.)	Medium-Tall	Medium-Tall	Medium-Short	Medium	Medium	
Straw Strength	Excellent	Average	Good	Average	Average	

Data Sources: 2024 Wheat Varieties for Kansas and the Great Plains, 2023 LCS CP Y4 Master, 2023 Carnige



END-USE QUALITY					
Overall Quality	Baking Quality	Dough Properties	Milling Quality		
Acceptable	Acceptable	Less Desirable	Acceptable		

Data obtained from LCS Quality Laboratory



The weed control to take flight









HARD RED WINTER WHEAT

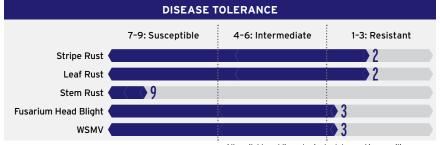
LCS Warbird AX



		YIELD		
	BU/AC	LCS Warbird AX 🧄 Trial Avg.	MEAN▶	
2023 Kauffman Seeds Yoder, KS	47 37		\	129% of mean
2023 LCS Trial Wellington, KS	36 28		\(\)	129% of mean
2023 LCS Trial Tonkawa, OK	40 36			111% of mean
2023 LCS Trial Enid, OK	106 95			112% of mean
2022 LCS Trial Wichita, KS	55 51			108% of mean
2022 LCS Trial Carnegie, OK	48 42			114% of mean
2022 LCS Trial St. John, KS	31 26			119% of mean
2022 LCS Trial Tonkawa, OK	88 85			104% of mean



Data Sources: 2024 Wheat Varieties for Kansas and the Great Plains, 2023 LCS CP Y4ACC, 2023 Carnige



All available public and private data used in compiling scores

END-USE QUALITY						
Overall Quality Baking Quality Flour Protein Milling Quality						
Desirable	Desirable	Acceptable	Desirable			
Data abtained from LCS Quality Laboratory						

Data obtained from LCS Quality Laboratory









Grains and gains



Excellent choice for dual-purpose acres with CoAXium system





Top-notch disease package including FHB tolerance

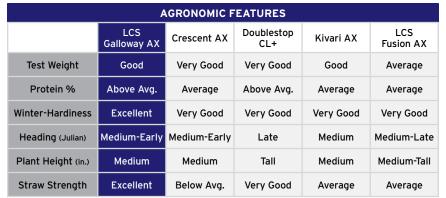


HARD RED WINTER WHEAT

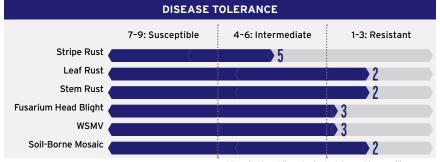
LCS Galloway AX



			:	
		YIELD		
	BU/AC	LCS Galloway AX Trial Avg.	MEAN▶	
2023 KSU Dryland Wellington, KS	29 26			111% of mean
2023 Kauffman Seeds Conway Springs, KS	41 32			131% of mean
2023 Kauffman Seeds Lyons, KS	40 37			111% of mean
2023 Kauffman Seeds Yoder, KS	55 37			149% of mean
2023 LCS Trial Tonkawa, OK	49 36		\Diamond	136% of mean
2023 LCS Trial Russell, KS	37 34			109% of mean
2022 LCS Trial Russell, KS	83 78			106% of mean
2022 LCS Trial St. John, KS	28 26			108% of mean



Data Sources: 2024 Wheat Varieties for Kansas and the Great Plains, 2023 LCS CP Y4ACC, 2023 Carnige



All available public and private data used in compiling scores

END-USE QUALITY							
Overall Quality Baking Quality Dough Properties Milling Quality							
Acceptable	Less Desirable	Acceptable	Acceptable				

Data obtained from LCS Quality Laboratory







Strong and steady



National Wheat Yield Contest winner



Drought-tolerant with top-end yield potential





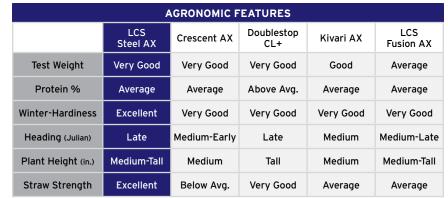
HARD RED WINTER WHEAT

LCS Steel AX

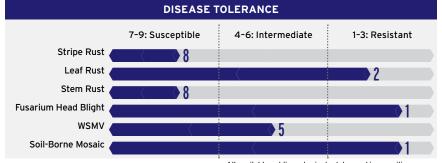


		YIELD		
	BU/AC	LCS Steel AX Trial Avg.	MEAN▶	
2023 CSU Dryland Burlington, CO	107 91			118% of mean
2023, UNL Rainfed Int. Mgmt. Saunders Cty., NE	43 30			140% of mean
2023 UNL Rainfed Red Willow Cty., NE	77 70			110% of mean
2023 Kauffman Seeds Yoder, KS	57 37			154% of mean
2023 KSU Dryland Hutchinson, KS	69 58			119% of mean
2023 KSU Dryland Garden City, KS	77 73			105% of mean
2023 OSU Dryland Chickasha, OK	81 77		>	105% of mean
2022 OSU Dryland Lahoma, OK	84 76			111% of mean

For all available data, visit LimagrainCerealSeeds.com



Data Sources: 2024 Wheat Varieties for Kansas and the Great Plains, 2023 LCS CP Y4ACC, 2023 Carnige



All available	public a	and p	orivate	data	used in	comp	iling	scores

END-USE QUALITY						
Overall Quality Baking Quality Dough Properties Milling Q						
Acceptable	Acceptable	Desirable	Desirable			

Data obtained from LCS Quality Laboratory







Blast away grassy weeds



Most broadly adapted with excellent yield stability



Excellent straw strength



Quick emergence and excellent fall growth



Excellent acid soil tolerance

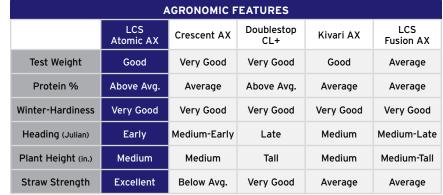
HARD RED WINTER WHEAT

LCS Atomic AX

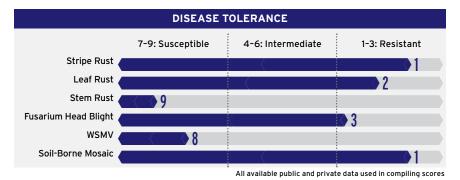


	YIELD	
	BU/AC ♦ LCS Atomic AX ♦ Trial Avg. MEAN	(▶
2023 KSU Irrigated Garden City, KS	83 (73)	113% of mean
2023 KSU Dryland Wellington, KS	27	105% of mean
2023 OSU Altus, OK	55	125% of mean
2023 OSU Walters, OK	45	102% of mean
2022 OSU Chickasha, OK	76 6 3	121% of mean
2022 OSU Int. Mgmt. Apache, OK	56 4 5	124% of mean
2022 OSU Alva, OK	16	138% of mean
2022 UNL Rainfed Jefferson Cty., NE	106 95	112% of mean

For all available data, visit LimagrainCerealSeeds.com



Data Sources: 2024 Wheat Varieties for Kansas and the Great Plains, 2023 LCS CP Y4ACC, 2023 Carnige



END-USE QUALITY					
Overall Quality	Baking Quality	Dough Properties	Milling Quality		
Acceptable	Unacceptable	Most Desirable	Less Desirable		

Data obtained from LCS Quality Laboratory







Engineered to beat weeds



National Wheat Yield Contest winner



Superior disease package



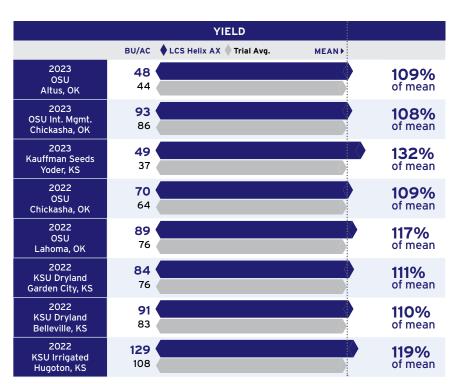
Excellent top-end yield with ability to handle tough acres



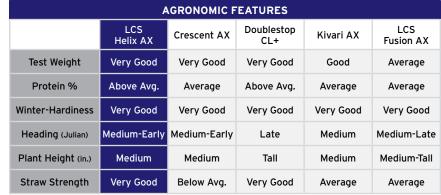
HARD RED WINTER WHEAT

LCS Helix AX

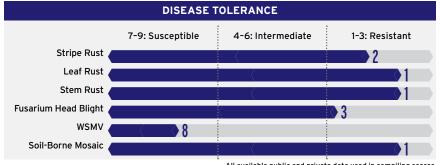




For all available data, visit LimagrainCerealSeeds.com



Data Sources: 2024 Wheat Varieties for Kansas and the Great Plains, 2023 LCS CP Y4ACC, 2023 Carnige



All available public and private data used in compiling scores

END-USE QUALITY						
Overall Quality Baking Quality Dough Properties Milling Quality						
Desirable	Desirable	Most Desirable	Acceptable			

Data obtained from LCS Quality Laboratory









HARD RED WINTER WHEAT

LCS Photon AX







Excellent grazing potential



Very good FHB and stripe rust tolerance



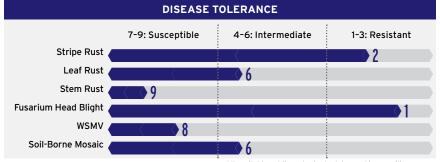
Highest protein and test weight in the CoAXium lineup



Very good dryland performance

AGRONOMIC FEATURES						
	LCS Photon AX	Crescent AX	Doublestop CL+	Kivari AX	LCS Fusion AX	
Test Weight	Very Good	d Very Good Very Good	Very Good	Good	Average	
Protein %	Above Avg.	Average	Above Avg.	Average	Average	
Winter-Hardiness	Very Good	Very Good	Very Good	Very Good	Very Good	
Heading (Julian)	Medium	Medium-Early	Late	Medium	Medium-Late	
Plant Height (in.)	Medium-Tall	Medium	Tall	Medium	Medium-Tall	
Straw Strength	Good	Below Avg.	Very Good	Average	Average	

Data Sources: 2024 Wheat Varieties for Kansas and the Great Plains, 2023 LCS CP Y4ACC, 2023 Carnige



All available public and private data used in compiling scores

	END-USE QUALITY					
Overall Quality	Baking Quality	Dough Properties	Milling Quality			
Desirable	Desirable	Most Desirable	Acceptable			

Data obtained from LCS Quality Laboratory







Striking seed, strong straw



Newest hard white winter wheat



Excellent adaptation to High Plains irrigated and dryland



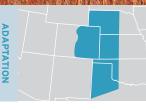
Solid disease package with FHB and stripe rust tolerance



Huge seed, high protein, excellent milling and baking properties

HARD WHITE WINTER WHEAT

LCS White Lightning

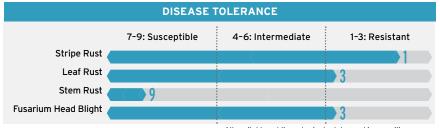


YIELD				
	BU/AC ♦ LCS White Lightning ♦ Trial Avg. MEAN >			
2023 LCS Trial Imperial, NE	93	98% of mean		
2023 KSU Dryland Larned, KS	44	100% of mean		
2023 KSU Irrigated Garden City, KS	73	93% of mean		
2022 LCS Trial Colby, KS	44 42	105% of mean		
2022 LCS Trial Garden City, KS	72 67	107% of mean		
2022 LCS Trial Hugoton, KS	106	104% of mean		
2022 LCS Trial Logan, KS	27	104% of mean		
2022 LCS Trial Enid, OK	69 64	108% of mean		

For all available data, visit LimagrainCerealSeeds.com



Data Sources: 2024 Wheat Varieties for Kansas and the Great Plains, 2023 LCS CP Y4 Master, 2023 Carnige



All available public and private data used in compiling scores

	END-USE QUALITY			
Overall Quality	Baking Quality	Flour Protein	Milling Quality	
Desirable	Acceptable	Most Desirable	Desirable	







T173

Make hay with T173





FORAGE BARLEY

LCS Saturn

A ringer for forage barley



High tonnage potential



Taller plant stature with long, thin leaves



Excellent straw strength



Good option for cover crop mixes



Awnless variety, ideal for grazing or haying



Excellent leaf rust tolerance



Very good stripe and leaf rust tolerance



Higher than average protein content



PVP Unauthorized seed multiplication prohibited by law. U.S. Plant Variety Protection Number has been granted.



PVP Unauthorized seed multiplication prohibited by law.
U.S. Plant Variety Protection Number has been granted.

LCS Saturn is an awned forage barley



TRITICALE

LCS Bar

Raise the bar on forage yield





Medium height with excellent standability



Excellent tolerance to stripe, leaf and stem rust



Good leaf-to-stem ratio



Very good forage and grain yield



Superior wheat quality

Limagrain Cereal Seeds is the only private breeding program with a dedicated, state-of-the-art quality lab. The LCS Quality Laboratory utilizes a comprehensive set of data, compiled over multiple years, to determine the end-use quality of all wheat varieties we release. Key attributes include:

Baking quality, including loaf volume, cookie diameter and dough rheology.

Milling quality, including flour yields and protein loss from grain to flour.

Flour protein, including water absorption, gluten strength and percentage of protein content.

These characteristics are weighted and combined into a single score: baking quality (30%), dough properties (20%), milling quality (40%), test weight (5%) and flour protein (5%). Overall end-use quality is classified in one of four categories:

Most Desirable. Elite varieties with excellent intrinsic (kernel) qualities and a superior combination of milling, baking and dough properties.

Desirable. High-demand varieties with strong intrinsic qualities and very good to good milling, baking and dough properties.

Acceptable. One or more quality parameters may have minor flaws. Overall, these varieties are acceptable to end users.

Less Desirable. Varieties with quality parameters that are less than adequate for current end-user standards or a single critical flaw.



Coming soon to a field near you

LCS Mojo Next-level WSMV tolerance HRWW with genetic resistance to wheat streak mosaic virus • Very good winter-hardiness

· Anticipated commercial seed availability in 2026

LCS Aries Big yield, early to harvest

- HRWW with early maturity
- Excellent straw strength
- availability in 2026

- Solid disease package
- · Anticipated commercial seed

Cutting-edge wheat genetics

LCS has access to the most advanced wheat and barley genetics in the world through the exchange of elite germplasm with international parent company Group Limagrain. We take the best and make it even better, using speed breeding technologies to create new, improved varieties adapted specifically for our farmers' climates, soils and growing conditions.

Led by Dr. Marla Barnett, our Central Plains breeding team is developing targeted, high-performance genetics for release in the coming growing seasons:

- Solid stem varieties
- Varieties with greater disease tolerance, including wheat streak mosaic virus, Fusarium head blight, stripe rust and barley yellow dwarf
- Next-generation CoAXium and Clearfield wheat for weed control
- · Awnless wheat and barley
- Varieties with improved milling and baking quality



LCS Cowie AX Elite dual-purpose wheat

- HRWW moo-velous for grazing and grain
- Quick to establish. lush vegetation
- CoAXium grassy weed control
- · Anticipated commercial seed availability in 2025

Game-changing new wheat genetics





LCS Radar



LCS White Lightning



LCS Warbird AX



LCS Galloway AX