



# Annual Kernza® Supply Report 2025



# Year in Review

“ ..we are interested in planting it again, but we just need it to be less risky.

**Most growers continue to see value in Kernza, but adoption is shaped by risk, markets, and management flexibility.**



The 2025 growing season reflects a Kernza supply chain that continues to expand, while also recalibrating in response to market signals, weather and climate, production realities, and risk. Total acreage in the United States increased modestly year over year, driven primarily by growth in the Great Plains and Western regions, while acreage in the Midwest declined slightly and remained limited in the East.

Similar to previous years, grower decision-making in 2025 was strongly shaped by market uncertainty and perceived risk. Many producers chose not to harvest grain, and indicated they do not intend to plant in 2026. At the same time, survey data suggests that dual-use management continues to expand, particularly in the West, where over 90% of acres support both forage and grain production.



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# Quick Stats

*A look at 2025 Kernza® planting, harvest, management and storage*

As of November 2025, there are **3,511 acres of Kernza** in the United States, of which **697 acres are currently designated as “TBD.”** These TBD acres include newly planted stands pending overwintering evaluation, as well as established stands that may be rotated out of production in 2026. Year over year, this represents a 7% increase in acreage; however, given the number of TBD acres, the total acreage figure should be interpreted with caution and in the context of spring emergence still to be determined.



## Planting

A total of **1,408 acres were planted in 2025**. Of these, 820 acres are confirmed as established, 561 acres are currently designated as TBD\*, and 27 acres are classified as failed plantings. The majority of confirmed established plantings are in the Great Plains region.

\*TBD acres include newly planted stands pending overwintering evaluation, as well as established stands that may be rotated out of production in 2026.



## Harvest & Management

Approximately 68% of established Kernza acres in 2025 were harvested for grain production. Most survey respondents cited market uncertainty as a primary reason for choosing not to harvest grain. **The 2025 grain harvest yielded an estimated 98,752 lbs of clean-dehulled grain.**



## Grain Storage

**Thirty-eight growers reported having grain in storage.** Of these, two growers reported grain from the 2021 harvest, six from 2022, eleven from 2023, seventeen from 2024, and twenty-three from 2025. Storage methods varied widely, ranging from gravity wagons and totes to bins and aerated bins. **Across all harvest years, there is an estimated 317,056 lbs of clean-dehulled\* grain in storage** (\*note most of the 2025 crop has not been cleaned or dehulled).

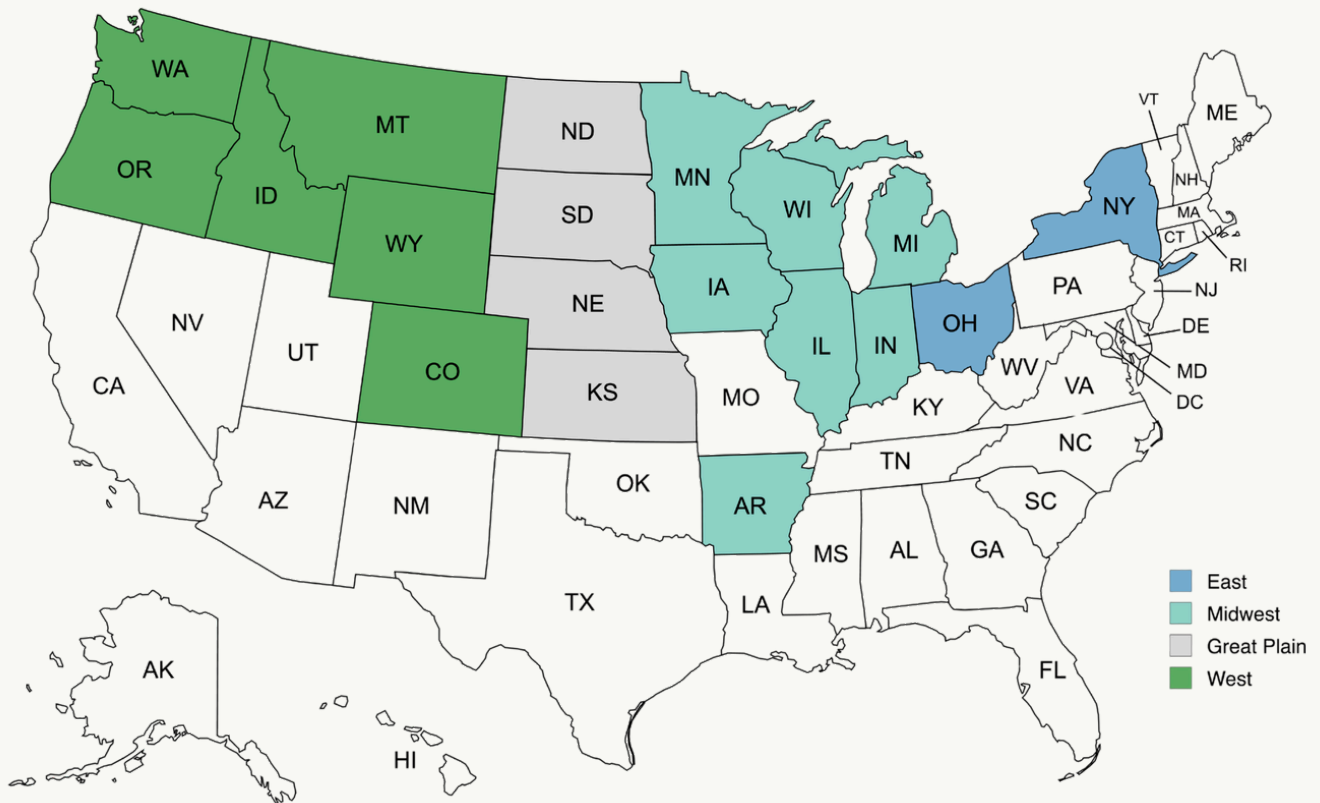


## Survey Response Rate

98% of **active licensees with active acres** completed the annual survey. 83% of all licensees completed the annual survey.

# Kernza<sup>®</sup> Regions

Our annual return of results of production, harvest, and management data is organized by geographic region. Below is a map of what states are included in each region. NO INTERNATIONAL ACRES ARE INCLUDED IN THIS REPORT.



As of November 2025, there are nineteen states with active Kernza **acres**. These states include Arkansas, Colorado, Iowa, Illinois, Indiana, Kansas, Michigan, Minnesota, Montana, Nebraska, New Mexico, North Dakota, New York, Ohio, Oregon, South Dakota, Washington, Wisconsin, and Wyoming.

# Eastern Summary

*A review of all Kernza® licensees in the eastern region (New York and Ohio)*



## Quick Stats

- 3 grower licenses
- 20 active acres
- 0 lbs of grain harvested
- 0 new acres planted
- 8,000 lbs of bin-run grain in storage from 2024 harvest

## No new acreage

No new acres were planted in this region during the reporting period, and no grain was harvested this year. The majority of acres in this region are no longer in production and are used primarily for grassland bird habitat.

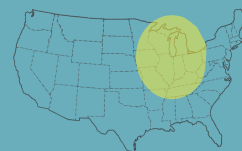
## More research is needed

Kernza production in the eastern United States remains limited. While there are a small number of existing licensed growers in New York and Ohio, they have historically not harvested or marketed grain. We have received interest from small scale farms in the region; however, the region has not yet demonstrated consistent agronomic performance, clear economic viability, or the necessary grain handling and processing infrastructure in order to support a stable supply chain at scale. However, The Land Institute is aware of several commercial partners planning mixed research and commercial plantings in 2026. Beyond these partner-led efforts, The Land Institute is conducting research on regional suitability and a grain infrastructure assessment to determine whether the region is appropriate for expanded commercial production of Kernza and, if so, under what conditions.

Until production data, market conditions, and infrastructure capacity are better established, it is generally more practical for end-users and makers in the region to source Kernza ingredients through established suppliers. This approach helps ensure product consistency, good grain quality, and reliable supply while regional feasibility continues to be evaluated.

# Midwestern Summary

A review of Kernza® production in Minnesota, Wisconsin, Iowa, Illinois, Indiana, Michigan, and Arkansas



## Quick Stats

- 80 grower licenses
- 950 total active acres
- 240 acres exited production
- 204 acres planted
- 117,700 lbs of bin-run grain harvested
- Weighted\*\*\* avg. clean-dehulled yield estimate of 120 lb/ac
- Avg. total cleaning and dehulling loss estimated at 77% loss

## Slight Decline in Total Acres

The Midwest currently has **950 active acres**, of which 214 acres are classified as TBD\*.

While the Midwest continues to be a leader in Kernza production, overall production and total acreage has declined year over year. In 2025, **240 acres exited production** (due to crop rotations, stand failure, or legacy designation\*\*), while approximately **204 new acres were planted**. Because new plantings did not fully offset acres taken out of production, the region experienced a modest net decline in total acreage.

*\*TBD acres include newly planted stands pending overwintering evaluation, as well as established stands that may be rotated out of production in 2026.*

*\*\*Legacy designation applies to vegetatively active stands that are no longer grain-producing, generally those 5+ years old.*

*\*\*\*Weighted Average yield estimates are weighted by the number of acres harvested in each field because yields are generally lower in smaller fields with more edge effects.*

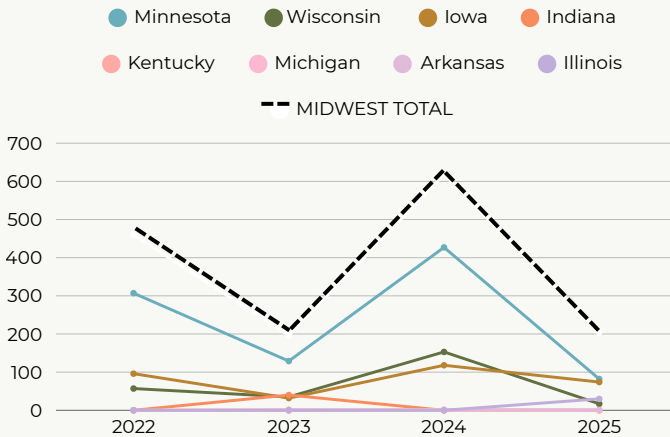
## Midwest shows reduced planting alongside aging stands and weather variability.

Grower-reported bin-run yields declined in 2025 to an average of 120 lb/acre, down from 366 lb/acre in 2024 and 334 lb/acre in 2023. This represents a 67% year-over-year decrease from 2024 and a 64% decline relative to 2023. The continued downward trend suggests increasing production constraints, likely associated with clean out rates, lack of precise yield estimates, stand age, and suboptimal growing conditions. While many Midwestern growers referenced an abnormally wet summer, several also suggested that dry conditions in fall 2024 may have limited stand establishment, potentially contributing to lower yields in 2025.

# Midwest Planting Detail

## ACRES PLANTED

Midwest Acres Planted Over Time

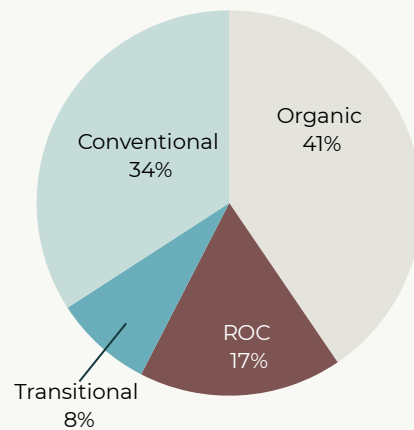


Midwest Kernza acreage has fluctuated over the past four years, reflecting both market developments and grower decision-making. After declining between 2022 and 2023, acreage rebounded strongly in 2024, reaching its highest level before declining again in 2025. Minnesota continues to represent the largest share of regional acreage, driving much of the year-to-year variability. Other states, including Illinois, Indiana, Kentucky, Michigan, and Arkansas, remain at relatively small acreage levels, though Illinois showed modest growth in 2025.

In 2025, approximately **41% (83 acres) of newly planted Midwest acres were certified organic.** However, nearly half of those acres are currently classified as “TBD,” with final establishment status to be determined based on spring emergence.

All but one field was fall planted, with a **planting window from 8/20/25 to 11/21/25.** Of the 204 acres planted, nearly half of the acres (**110 acres**) were planted with either **MN-Clearwater or MN-Itasca varieties**, while 59 acres were planted with TLI-801. The other 35 acres were planted with a Kernza variety reported as unknown.

Midwestern 2025 Acres Planted by Management Type



pie chart (above) shows the percentage of midwestern new acres planted in 2025 by each management type

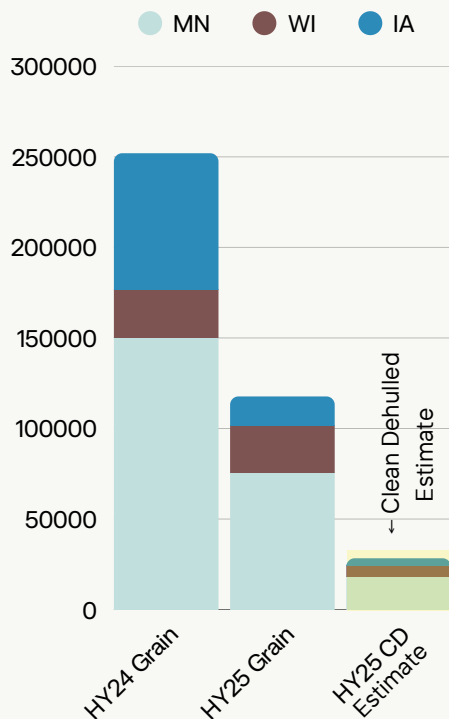
## 2026 PLANTING INTENTIONS

Overall, the data indicate a supply chain recalibrating in response to market signals, with the expected lag between demand signals and acreage decisions. However, despite strengthening demand for organic and ROC grain, **only 3 organic/ROC growers out of 80 midwestern licensees indicated that they intend to plant Kernza in 2026.** Most licensees (21/80) indicated they were uncertain if they would plant in 2026, often pointing to market concerns.

# Midwest Harvest & Management Detail

## GRAIN HARVEST

Midwest Total Grain Harvested (bin-run) by State



The total volume of grain harvested in the Midwest declined substantially compared to 2024. This decrease reflects a combination of factors, including the removal of more than 200 acres from production and the lowest reported yields in the past three years. Notably, Wisconsin’s harvest remained relatively stable, while Minnesota and Iowa saw significant declines.

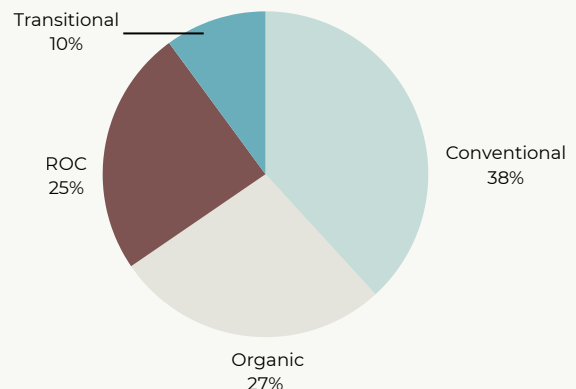
Based on samples from The Land Institute’s Annual Monitoring Program (AMP), the Midwestern **average total loss from cleaning and dehulling was 77%**, compared to 56% in 2024. This elevated total cleaning loss rate may be associated with smaller grain size, older stand age, variable maturity, increased foreign material, and more rigorous processing methods resulting in higher material loss. Applying the average loss rate to reported Harvest Year 2025 (HY25) bin-run production numbers, **we estimate that the Midwest harvested approximately 28,000 pounds of clean dehulled Kernza grain in 2025.**

Grain harvest by management type indicates that the proportion of both **Organic and ROC acres harvested represents a combined 52% of all midwestern harvested acres** in HY25, up from 36% in HY24. This shift aligns with strong demand signals for Organic and ROC grain.

The Midwestern **harvest window ranged from 8/20/25 to 10/17/25**, with the majority of harvest occurring in late August. The October harvests were primarily attributed to weather delays and labor constraints. Both swathing with pickup headers and direct cutting methods were reported.

A range of combine makes and models were used; reported settings generally reflected rotor speeds of 680–1000 RPM, fan speeds of 380–700 RPM, concaves typically set around 2 ( $\approx 1/8"$ ), top sieve settings of 10–14, and bottom sieves between 3 and 4. Note, not all survey respondents provided detailed combine settings.

Midwest 2025 Grain Harvested Acres by Management Type



# Midwest Harvest & Management Detail Continued

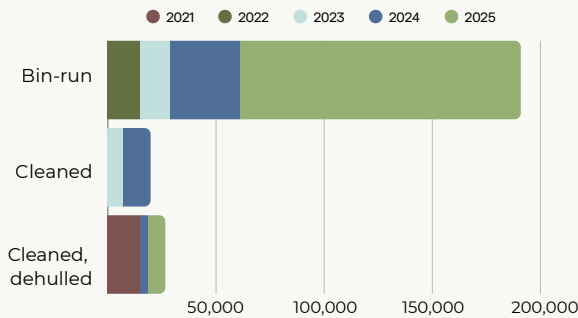
## YIELD

Kernza grain yields are reported by growers as bin-run estimates based on field estimates and combine monitors (when available). Scale receipts are rarely reported. The value shown is a regional weighted average (by field acres) to account for edge effects. We have also applied the average total cleaning loss (77% loss) and average bin-run test weight (17 lbs/bushel) based on Annual Monitoring Program results. In 2025, **the Midwest weighted average yield was 120 lbs/acre clean-dehulled\***.

\*The clean-dehulled estimate converted from bin-run estimates reported in annual surveys.

## STORAGE

Midwest Grain in Storage by Year



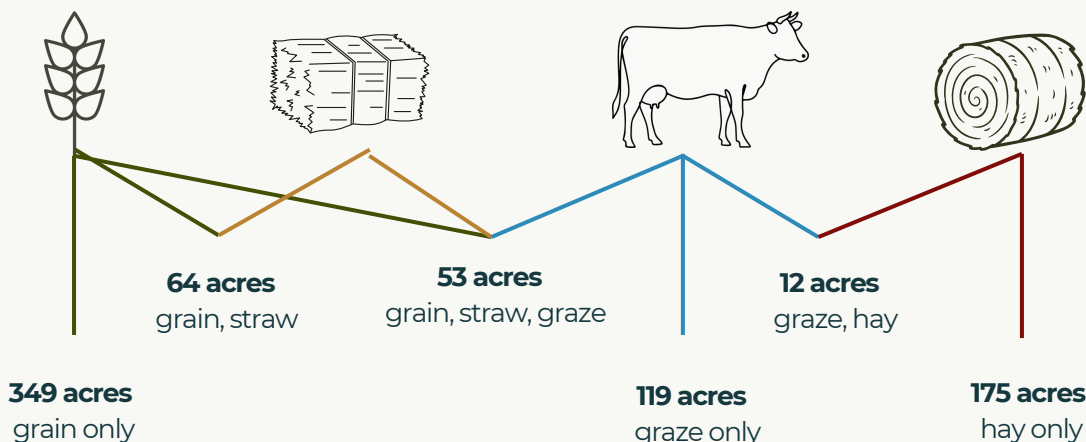
In the Midwest, there are ~143,000 lbs of total bin-run grain in storage across management types and harvest years (82% of which was harvest in 2025). There are also 40,000 lbs of clean and dehulled Kernza (37% of which is from 2025). Note there are 15,000 lbs of grain in storage from 2021, but that grain is likely destined for livestock feed.

The most common storage types reported were grain cart/gravity boxes and grain totes.

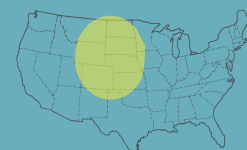
Ten out of the 16 fields harvested for grain in the Midwest have submitted grain samples for grain quality testing to either the Annual Monitoring Program (AMP) or the UMN EECO program. Next year, we hope all growers harvesting grain will use either AMP or EECO.

## DUAL-USE

Beyond grain harvest, Kernza provided dual-use benefits on 129 acres out of 772 harvested Midwestern Kernza acres. There were 166 acres that did not report a harvest of any kind.



# Great Plains Summary



*A review of Kernza® production in North Dakota, South Dakota, Kansas, and Nebraska*

## Quick Stats

- 24 grower licenses
- 1,263 active acres
- 415 acres exited production
- 755 acres planted
- 122,080 lbs of bin-run grain harvested
- Weighted\*\*\* avg. clean-dehulled yield estimate of 225 lb/ac
- Avg. total cleaning and dehulling loss estimated at 65% loss

## Increase in Total Acres

**The Central Great Plains currently has 1,263 active acres**, of which 237 acres are classified as TBD\*.

In the Central Great Plains, total Kernza acreage has increased year over year. In 2025, **415 acres exited production** (due to crop rotations, stand failure, or legacy designation\*\*), while approximately **755 new acres were planted**.

*\*TBD acres include newly planted stands pending overwintering evaluation, as well as established stands that may be rotated out of production in 2026.*

*\*\*Legacy designation applies to vegetatively active stands that are no longer grain-producing, generally those 5+ years old.*

*\*\*\*Average yield estimates are weighted by the number of acres harvested in each field because yields are generally lower in smaller fields with more edge effects.*

## Great Plains acreage is expanding, but harvest strategies are conservative.

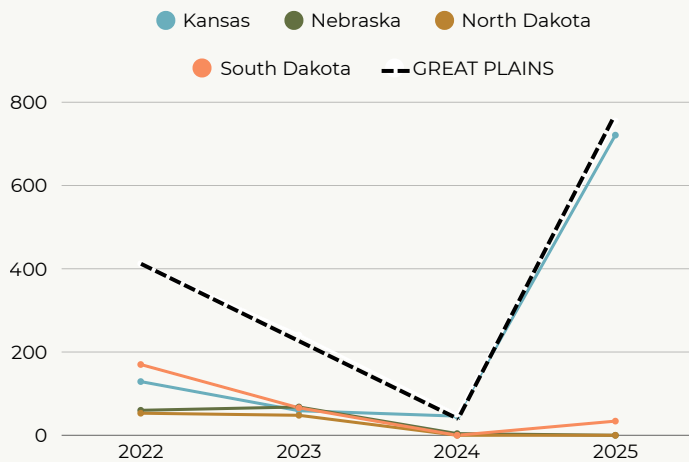
Similar to the Midwest, the average yield for HY2025 was down from HY2024, which could be due to stand age and more aggressive clean-out rates. While some producers report problems with pests, the region seemed to have generally favorable harvest and growing conditions.

Compared to HY2024, the estimated total of harvested bin-run grain decreased by approximately 50,000 lbs. Overall harvest activity also declined: about 800 acres were harvested (for grain, hay, forage, or dual use) in HY2024, compared to roughly 670 acres in HY2025.

# Great Plains Planting Detail

## ACRES PLANTED

Great Plains Acres Planted over Time

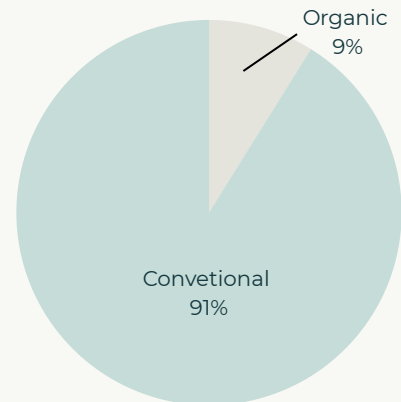


The Kernza acres planted in the Great Plains have seen a marked increase over the last two years. After declining from 2022 to 2024, acreage rebounded strongly in 2025. Kansas continues to represent the largest share of regional acreage, accounting for much of the regional trend.

In 2025, approximately **91% of newly planted Great Plains acres were conventional acres (688 acres)**. However, nearly 19% of those acres are currently classified as “TBD,” with final establishment status to be determined based on spring emergence.

All but one field was fall planted, with the planting window lasting from 9/16 through 11/11. Of the 755 acres planted, just over a third of the acres (**282 acres**) were **planted with TLI-801**, 350 acres were planted with TLI-703, and the other 123 acres were planted with a Kernza variety reported as unknown.

Great Plains 2025 Acres Planted by Management Type



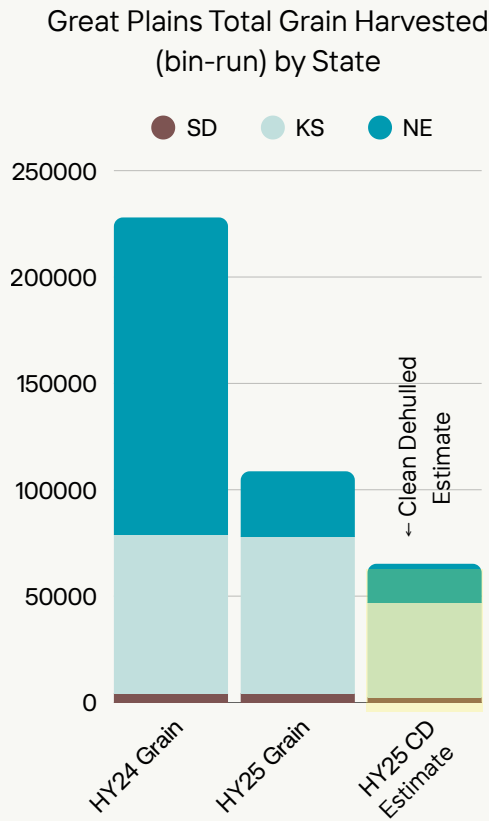
*pie chart (above) shows the percentage of new great plains acres planted in 2025 by each management type. Note there were no Transitional or ROC acres planted in this region*

## 2026 PLANTING INTENTIONS

In the Great Plains, only 5% of respondents indicated plans to plant Kernza in 2026, with the majority split between “undecided” and “no.” However, this follows a year of net acreage growth in 2025, when the region expanded by approximately 300 acres after accounting for stands rotated out of production. The limited planting intention for 2026 likely reflects a period of stabilization and management of recently established acres.

# Great Plains Harvest & Management Detail

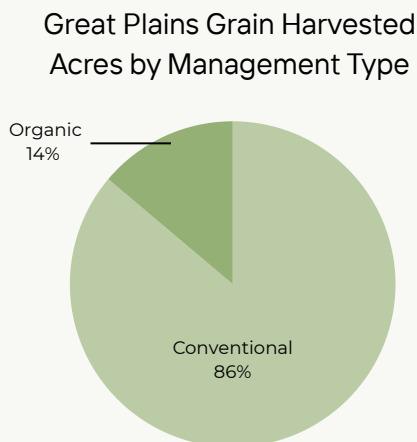
## GRAIN HARVEST



While there are Kernza growers in North Dakota (ND), no ND growers harvested Kernza for grain, only for forage or wildlife habitat. The majority of grain harvested in HY2025 came from Kansas, with significantly less grain harvest occurring in Nebraska compared to HY2024.

In the Great Plains, we saw more mention of insects and pests than in any other region, particularly grasshoppers and armyworms that may have negatively impacted yields.

Grain harvest data by management type show an increase in organic production in the Great Plains relative to 2024, when no organic grain was harvested in the region. **Of the Great Plains acres harvested in HY2025, 14% were organic.** This shift may reflect growing demand for organic grain in the Great Plains, alongside continued organic and ROC demand in the Midwest.



**The Great Plains harvest window ranged from 7/27/25 to 8/15/25**, which is a month narrower than HY2024, when harvest stretched into September. The tightening of the harvest window is likely due to fewer acres harvested overall and ideal weather conditions at harvest (except for in ND, which reported above-average precipitation in July). As far as harvest equipment, the most common combines used were a John Deere 9400, 9500, or 9600 combine with a draper header, and in South Dakota, a John Deere S780 with a stripper header.

# Great Plains Harvest & Management Detail Continued

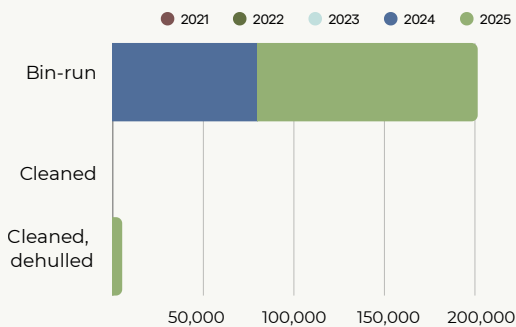
## YIELD

Kernza grain yields are reported by growers as bin-run estimates based on field estimates and combine monitors (when available), and scale receipts are rarely reported. The value shown is a regional weighted average (by field acres) to account for edge effects. We've also applied the average total cleaning and dehulling loss (65% loss) and average bin-run test weight (29 lbs/bushel), based on Annual Monitoring Program results. In 2025, **the Great Plains weighted average yield was 225 lbs/acre clean-dehulled.\***

*\*The clean-dehulled estimate converted from bin-run estimates reported in annual surveys.*

## STORAGE

Great Plains Grain in Storage by Year



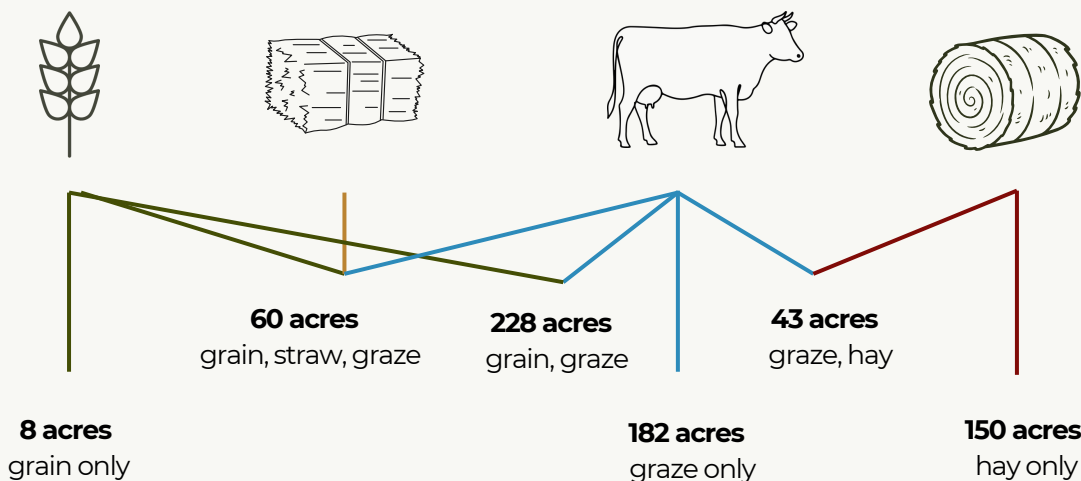
In the Great Plains, there are ~207,000 lbs of total bin-run grain in storage across management types and harvest years (59% of which was harvested in 2025). There are also 5,000 lbs of clean and dehulled Kernza, all of which is from 2025. The Great Plains region reported no grain in storage older than two years.

The most common storage types reported were bins, aerated bins, and grain totes.

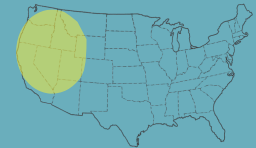
Eleven out of the 12 fields harvested for grain in the Great Plains have submitted grain samples for grain quality testing to the Annual Monitoring Program (AMP).

## DUAL USE

Beyond grain harvest, Kernza provided dual-use benefits on 331 acres out of 671 harvested Great Plains Kernza acres. Note, there are nearly 300 acres in the Great Plains that did not report a harvest of any kind.



# West Summary



*A review of Kernza® production in Colorado, Montana, New Mexico, Oregon, Washington, and Wyoming*

## Quick Stats

- 23 grower licenses
- 1,258 total active acres
- 72 acres exited production
- 443 acres planted
- 109,800 lbs of bin-run grain harvested
- Weighted\*\* avg. clean-dehulled yield estimate of 166 lb/ac
- Avg. total cleaning and dehulling loss estimated at 72% loss

## Increase in Total Acres

**The Western region currently has 1,258 active acres**, of which 220 acres are classified as TBD\*.

In the Western region, total Kernza acreage has increased year over year. In 2025, **72 acres exited production** (due to crop rotations and stand failure), while approximately **443 new acres were planted**. The state with the largest increase in new acres was New Mexico.

*\*TBD acres include newly planted stands pending overwintering evaluation, as well as established stands that may be rotated out of production in 2026.*

*\*\*Average yield estimates are weighted by the number of acres harvested in each field because yields are generally lower in smaller fields with more edge effects.*

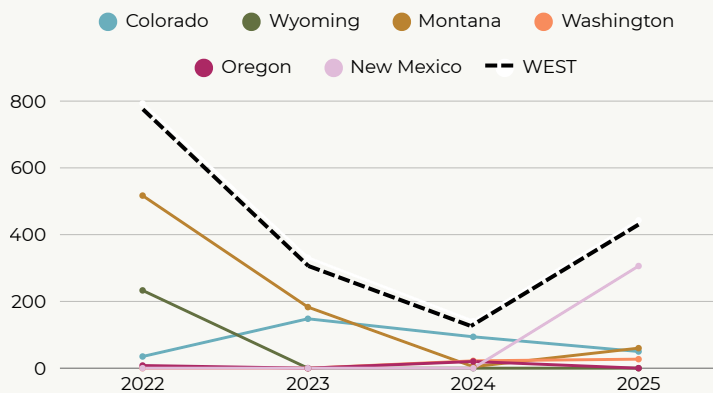
## New Western states show emerging production with strong dual-use adoption

The Western region remains relatively young compared to others, considering the Midwest and Great Plains began experimenting with Kernza as early as 2016. However, despite some of the lowest yields across regions, driven in part by drought conditions, poorly timed weather events, challenging harvest conditions, and high cleaning losses, there is still significant new acreage being planted. Many producers in this region are well positioned to take advantage of the dual-use benefits that Kernza offers, with over 90% of harvested acres supporting both forage and grain production.

# West Planting Detail

## ACRES PLANTED

West Acres Planted over Time



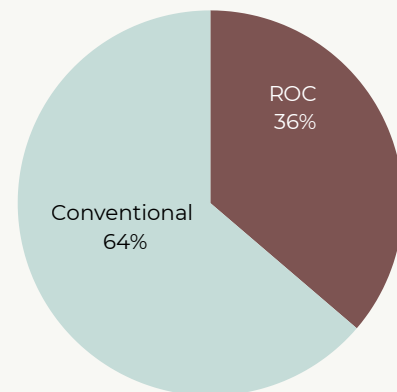
While peak acreage in the region occurred in 2022—driven largely by plantings in Wyoming and Montana—new plantings in those states have since declined as stands mature. Meanwhile, new acreage is emerging in additional states, including New Mexico, Washington, and Colorado.

Unique to this region is the prevalence of Kernza under irrigation; **over half of the new acreage planted in the west is irrigated.**

In 2025, approximately **two-thirds of newly planted Western acres were conventional acres (295)**. However, 48% of those acres are currently classified as “TBD,” with final establishment status to be determined based on spring emergence.

Spring and fall planting are both common in this region and largely depend on moisture timing. States reliant on snowmelt tend to spring plant, while those with late-summer or fall precipitation favor fall establishment. **Spring planting occurred during the second week of April, and fall planting occurred between 8/4/25 and 9/5/25.** Approximately 30% new acres in this region were planted with a TLI variety (either TLI-703 or TLI-801), and the other **60% was planted with a Kernza variety reported as unknown.**

Western 2025 Acres Planted by Management Type



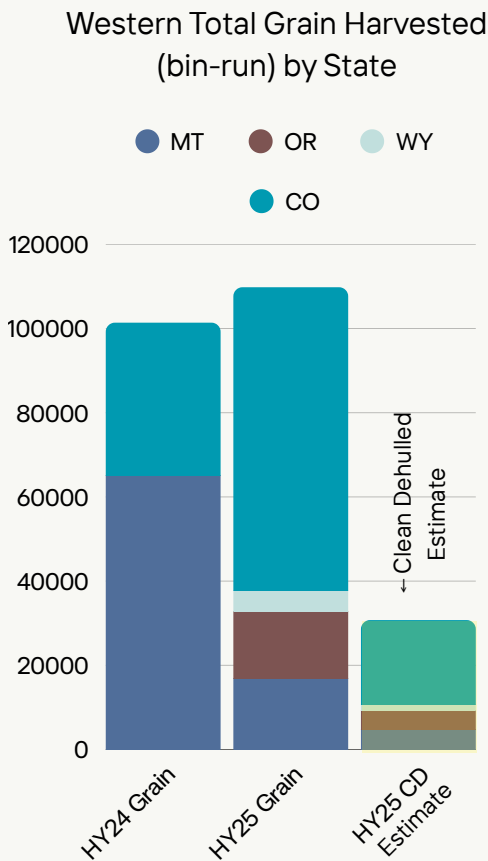
*pie chart (above) shows the percentage of new western state acres planted in 2025 by each management type. Note there were no transitional or organic acres planted in this region.*

## 2026 PLANTING INTENTIONS

In the western Kernza states, four licensees indicated they intend to plant in 2026, two of whom cited institutional or grant support. However, most licensees do not intend on planting, often pointing to limited market opportunities or satisfaction with current acreage.

# West Harvest & Management Detail

## GRAIN HARVEST



Similar to the Midwest, a variety of management types were harvested for grain production in the western region. However, **the West, primarily Montana, remains the largest producer of ROC grain.**

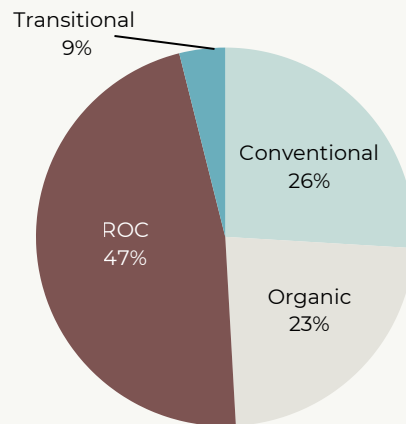
Compared to HY2024, there was a 14% increase in the number of conventional acres harvested and a 20% decrease in the amount of transitional grain harvested.

The **Western Kernza grain harvest window ranged from 7/20/25 to 8/15/25**, which is a significantly shorter window compared to HY2024, when harvest stretched into October. Even with the smaller harvest window, growers that harvested in August reported a later than ideal harvest window due to weather constraints. Harvest equipment was not frequently reported in this region. Of the equipment reported, two different makes and models of combines were present: a JD 9500 and a Case IH 2388. Combine settings were generally tight concaves and low fan speed around 700 rpm.

Growing conditions in 2025 were less than ideal for this region. Many growers cited drought-related challenges, including limited winter moisture and low rainfall in spring and early summer. However, in more northern latitudes, **producers reported insufficient moisture during critical growth stages, followed by heavy rainfall during harvest causing harvest delays.**

In this region, there are also several producers experimenting with alfalfa–Kernza intercroops, though some noted that competition from the alfalfa may be contributing to lower Kernza yields.

## Western 2025 Grain Harvested Acres by Management



# West Harvest & Management Detail Continued

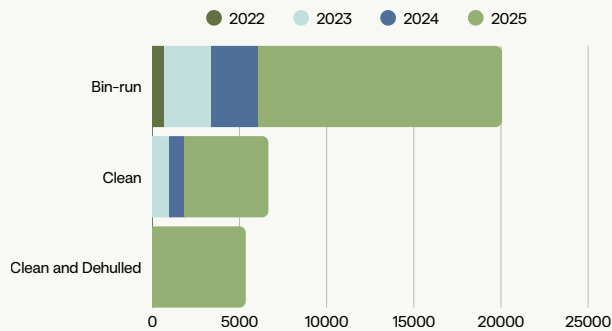
## YIELD

Kernza grain yields are reported by growers as bin-run estimates based on field estimates and combine monitors (when available), and scale receipts are rarely reported. The value shown is a regional weighted average (by field acres) to account for edge effects. We've also applied the average cleaning loss (72% loss) and average bin-run test weight (21 lbs/bushel), based on Annual Monitoring Program results. In 2025, **the Western region's weighted average yield was 166 lbs/acre clean-dehulled.\***

*\*The clean-dehulled estimate converted from bin-run estimates reported in annual surveys.*

## STORAGE

Western Grain in Storage by Year

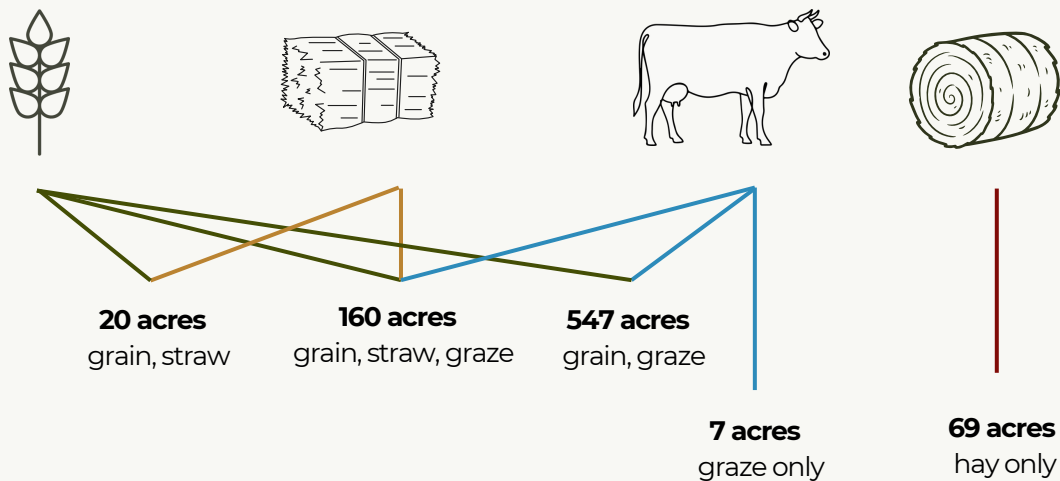


In the West, there are **~20,061 lbs of total bin-run grain in storage**, across management types and harvest years (70% of which was harvest in 2025.). There are **also 6,000lbs of cleaned Kernza and 5,000 lbs of clean-and-dehulled Kernza in storage**. The most common storage types reported were bins, aerated bins, and super sacks. Some of the Western grain harvested in 2025 had already been sold and shipped at the time of the survey, so is not reflected in storage estimates.

The majority of the 2025 harvested grain that is in storage is conventional grain, followed by ROC and Organic. In this region, 100% of fields harvested for grain submitted grain samples for grain quality testing to the Annual Monitoring Program (AMP).

## DUAL USE

In the western region, no producers reported using Kernza exclusively for grain harvest; although some used it solely for hay or grazing. Dual-use management accounted for 727 of 803 harvested acres (91% of all western acres had some form of dual use). Notably, 62 acres were not harvested, and an additional 34 acres were disked as part of a stand-rejuvenation experiment, which the producer reported as successful.





# Regional Comparisons

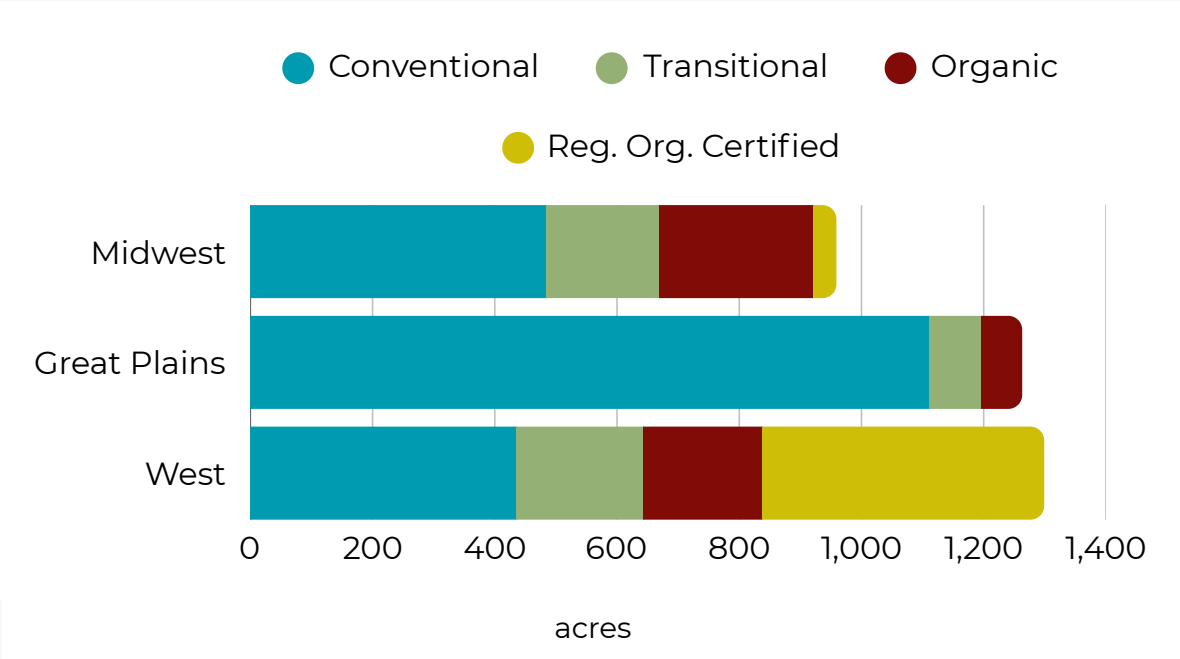
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# Number of Active Licenses and Active Acres

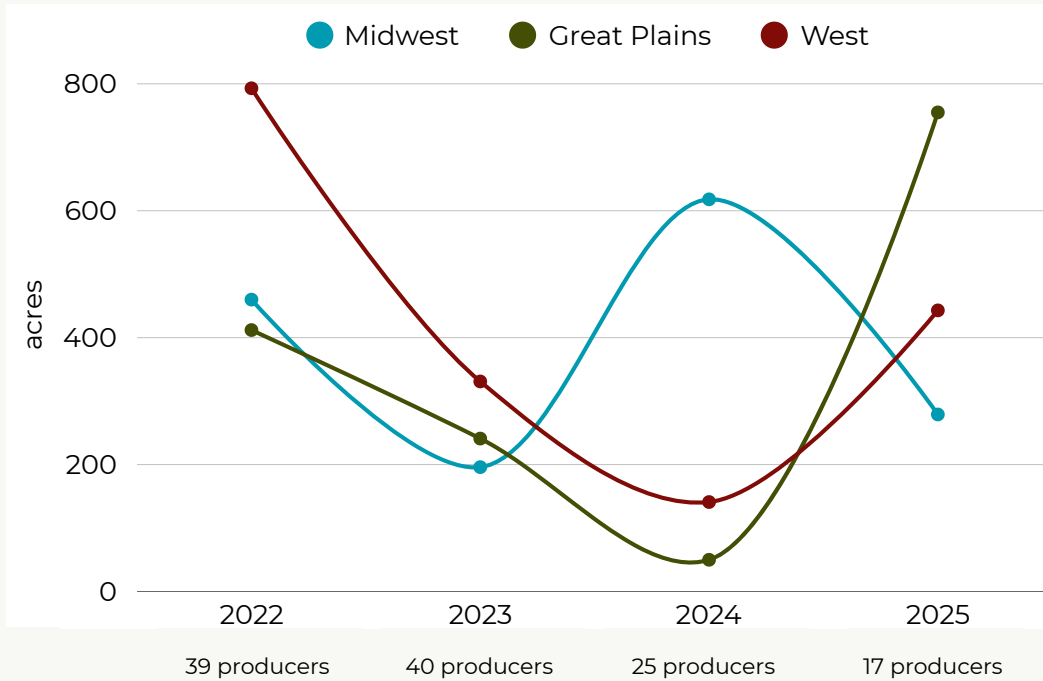
	Active Licenses	Active Licensee with Active Acres
East	3	2
Midwest	80	39
Great Plains	24	12
West	23	16

Historically, once a grower has a license, they are not required to plant Kernza. It is their choice and is influenced by a number of factors, including crop rotation, markets, risk tolerance, and coordination with Kernza distributors; thus, the number of active licenses does not equal the number of licenses with active acres.

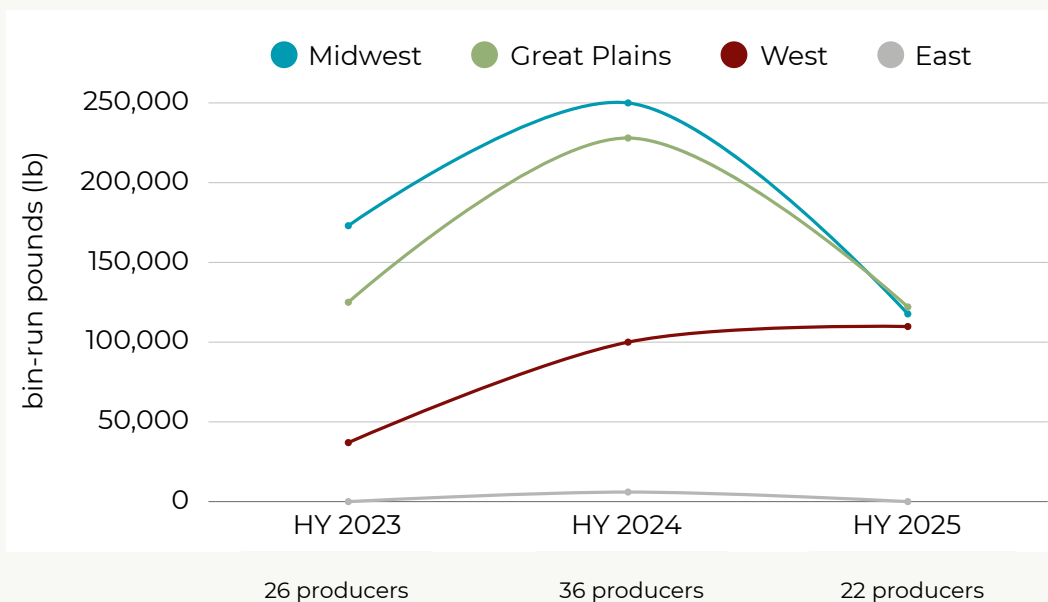
# Current Active Acres by Management Type



## Acres Planted Over Time

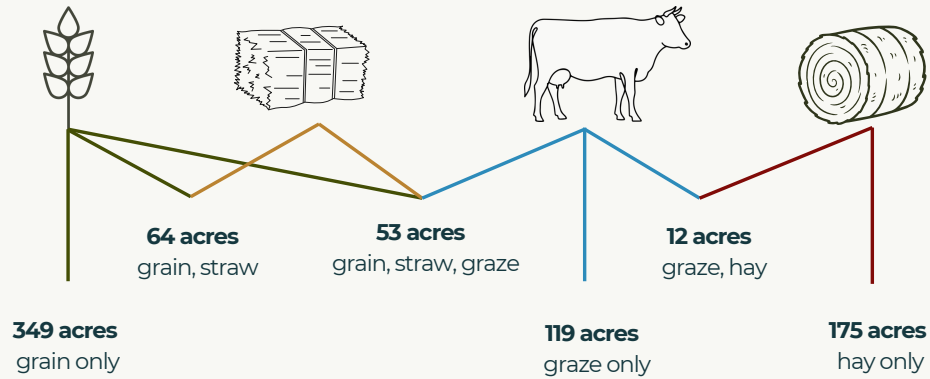


## Pounds of Bin-run Grain Harvested Over Time

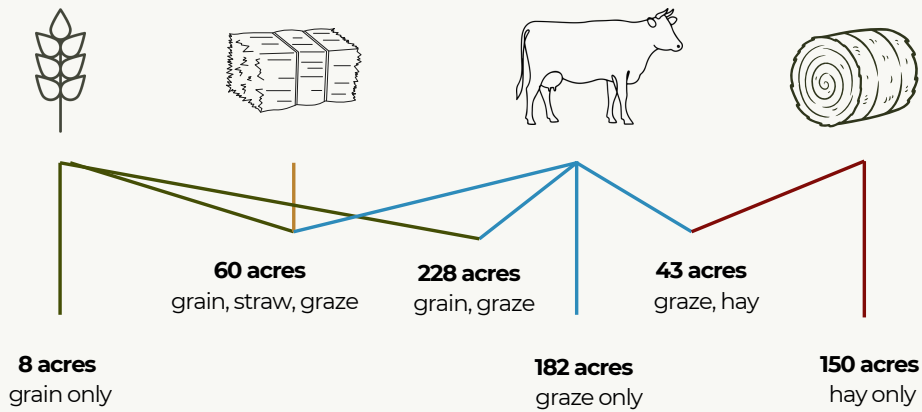


# 2025 Dual Use Across Regions

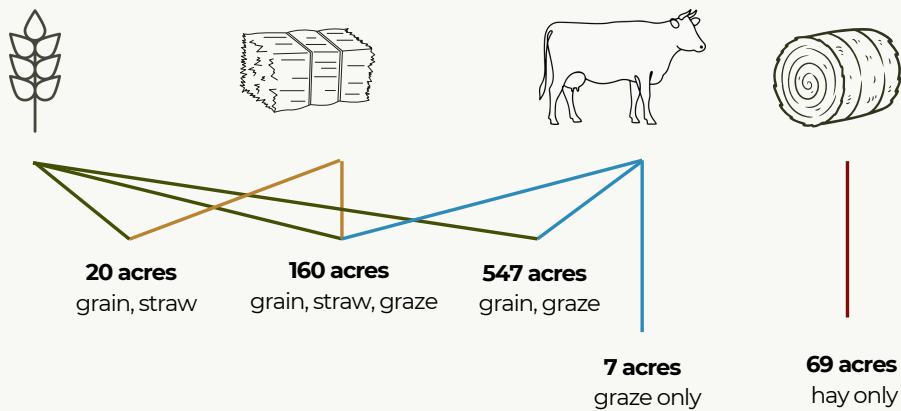
## Midwest



## Great Plains



## West





# Thank you

Thank you to the many Kernza licensees who contributed planting, harvest, and management data to this year's report. Your participation makes this work possible. The insights you share inform decisions across the supply chain and help strengthen the credibility of Kernza in emerging markets. We recognize the time, effort, and risk behind every acre, and we're grateful to be building this work alongside you.



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