



# 2022 PLANTING & HARVEST REPORT

## KERNZA® PERENNIAL GRAIN

Kernza® is a trademark, registered by The Land Institute. A trademark helps ensure that growers are producing a grain that is truly perennial and supports their livelihoods.

# ACREAGE SUMMARY

## TOTAL ACTIVE AND INACTIVE ACRES IN THE UNITED STATES

**3,979** Total  
Acres

At the time of data collection in November-December 2022, there are 3,979 active acres of Kernza® perennial grain in the U.S. Of those acres, 1,698 were planted in 2022.

**1,698** New  
Acres

Of the newly planted acres, nearly 900 were fall-planted. Growers will submit establishment data on these acres in fall 2023.

**1,213** Inactive  
Acres

From acres planted between 2016-2021, 1,213 are no longer active, due to spotty or failed establishment, or because the grower has since rotated the field into a different crop. Of acres planted in 2022, 21 failed to establish.

**21** Failed to  
Establish

Many growers plan to re-plant new varieties of Kernza in 2023.



In 2022, the number of people growing Kernza expanded to 110 licensed growers; 51 have acres being cultivated for grain production. The remaining 59 licensed growers are planting for the first time in 2023, or have rotated their Kernza out of production, but would like to maintain an active license in case they plant in the future.

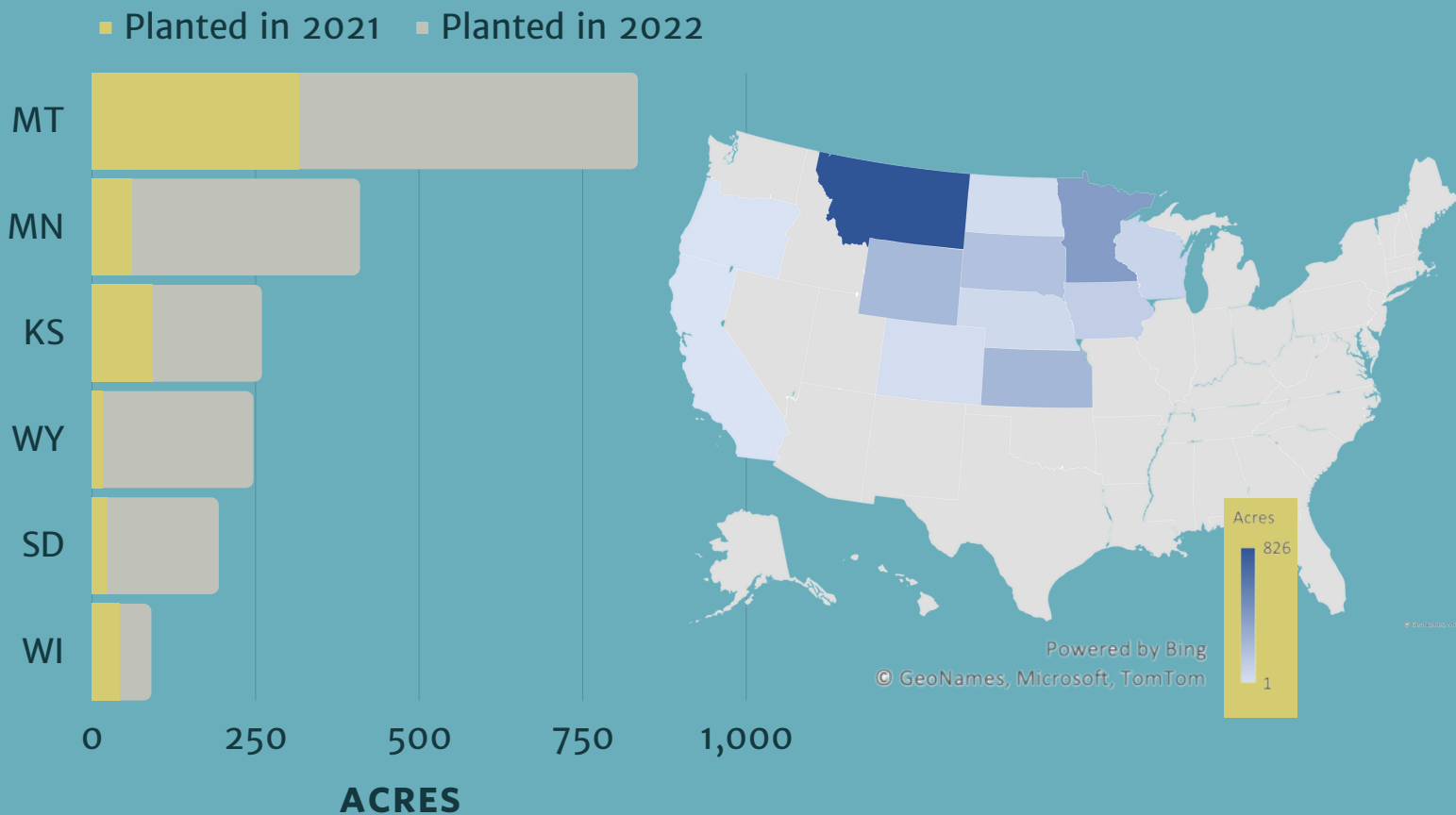
# LOCATION SUMMARY

## WHERE IS KERNZA BEING GROWN IN THE UNITED STATES?

Kernza is being grown on production acres in 12 states, reflecting the ability of the crop to fit into multiple management systems in different geographies.

## ACRES PLANTED IN 2021 & 2022

THE GRAPHICS BELOW ONLY INCLUDE STATES WITH MORE THAN 100 ACTIVE ACRES

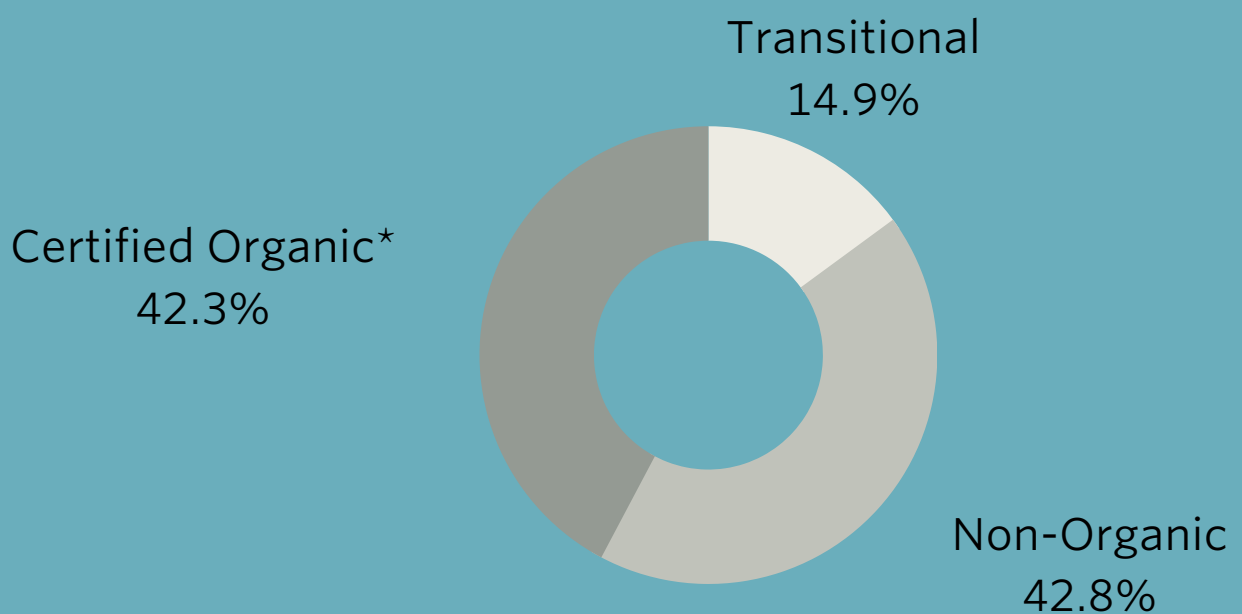


# MANAGEMENT SUMMARY

The data submitted by growers illustrates significant growth in non-organic (630 new acres) as well as Regenerative Organic Certified (ROC) acres (518 new acres). The simultaneous increase in non-organic and organic reflect that Kernza is a suitable crop under many management systems, depending on local geography, soil/water issues, and weed pressure. This growth indicates that farmers are pursuing non-organic and organic marketing strategies.

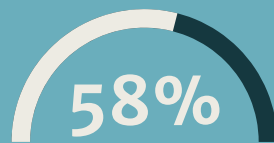
The growth of ROC-managed acres was due to a small number of growers expanding existing ROC acres, rather than a large number of new growers enrolling in the ROC program.

## MANAGEMENT OF ACTIVE KERNZA ACRES



*\*Certified Organic data is inclusive of the 17.9% of acres that are Regenerative Organic Certified*

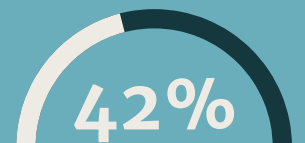
# PLANTING DATA SUMMARY



of acres were planted in the Fall

1,698

Total acres planted in 2022



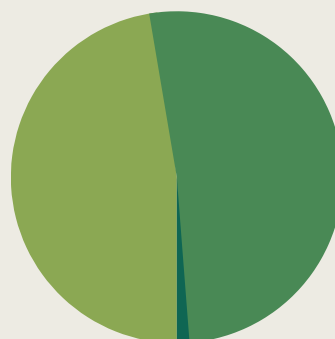
of acres were planted in the Spring

Just over half of all new 2022 Kernza acres were planted in August, September, and October, with the majority planted in September.

Most of the spring-planted acres were in Montana. In regions where fall moisture is unpredictable and producers have a use for the forage produced in the first year, spring planting is a viable option.

## NEWLY PLANTED ACRES

47.3%  
Established



51.4%  
TBD\*

1.2%  
Failed to  
Establish

\*TBD acres are awaiting spring emergence before we know whether they established.



# HARVEST DATA SUMMARY



**454,133**

**POUNDS OF GRAIN  
HARVESTED (FARM GATE)**

Nearly half of active Kernza acres were harvested for grain (1,575 acres). Thirty two percent of the 2022 grain harvest came from Kansas, and 35% came from Minnesota. The remaining 43% of the grain harvest came from other states. For spring-planted acres, growers will have their first harvest in 2023.

As depicted on the following page, some growers chose not to harvest for grain and instead grazed animals on their Kernza plantings or harvested the forage for hay.

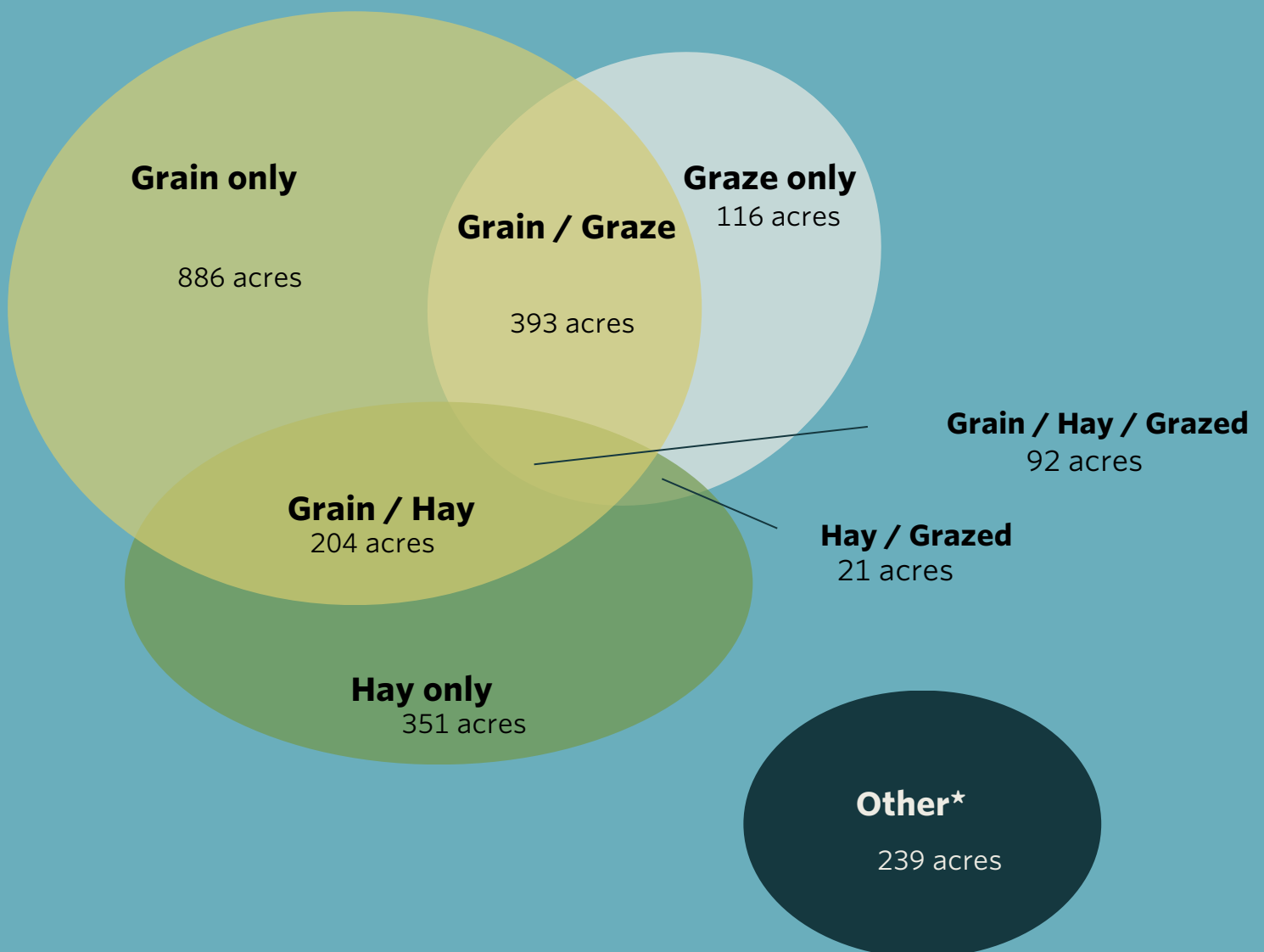


# BEYOND THE GRAIN

## ACTIVE ACRE USAGE

This year's data highlights growers' ability to utilize Kernza in multiple ways.

A combination of grain, grazing, and hay can help growers mitigate the risks of Kernza production, and benefit their entire operation.



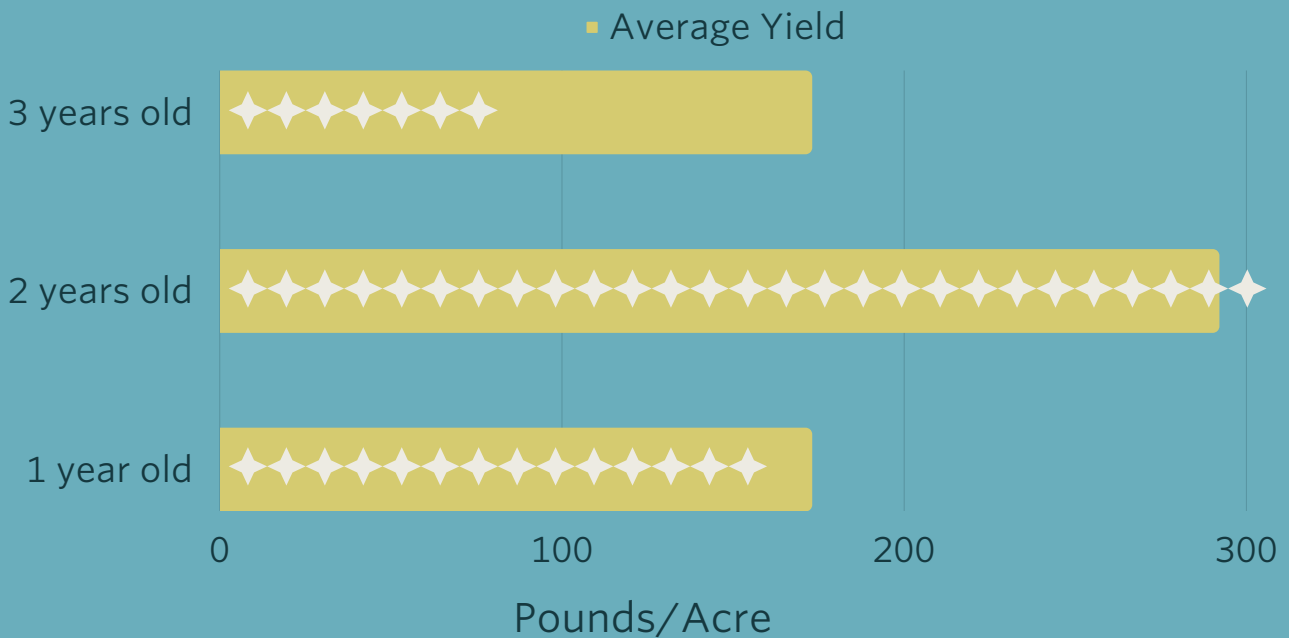
\*Other includes mowed for weed suppression or not utilized for any of the above categories

# YIELD SUMMARY

2022 had average yields of 288 pounds of Kernza® perennial grain per acre, a decrease from 409 pounds per acre in 2021. Drought may have contributed to lower yields in 2022. According to the U.S. Drought Monitor, spring and late fall drought plagued many of the primary production regions for Kernza, like Kansas, Nebraska, and Montana.

Minnesota's drought wasn't as severe. Minnesota had an average yield of 322 pounds per acre.

## AVERAGE YIELD DURING STAND LIFE



Based on data provided by growers, the largest yields come from two-year-old Kernza stands, on average. We will have more data points in the coming years to inform the average yield change over time.





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The Land Institute's goal is to create an agriculture system that mimics natural systems to produce ample food and reduce or eliminate the negative impacts of agriculture. Through transdisciplinary research and collaborations, The Land Institute builds learning communities to help society cross the threshold into diverse, perennial grain agriculture.

**Hope, Rooted in Science.**

## Contact

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