



# FEED THE FUTURE

The U.S. Government's Global Hunger & Food Security Initiative

## INNOVATION LAB FOR APPLIED WHEAT GENOMICS



Putting genomics to work for global food security

### What we are doing:

#### DEVELOPING FASTER AND MORE ACCESSIBLE TOOLS

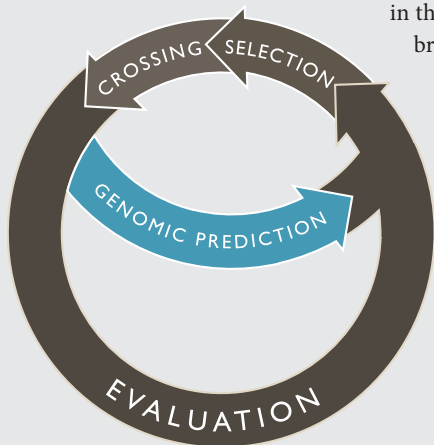
We are developing affordable and accessible high-throughput phenotyping tools that enable breeders to rapidly measure plant traits on a global scale.

#### USING BIG DATA TO SOLVE EVEN BIGGER PROBLEMS

By combining phenotypic and genotypic data from our trials in Mexico, India, Pakistan and Bangladesh, along with historical data, we are building the largest public database of elite candidate wheat varieties in the history of wheat breeding, enabling better prediction models which will lead to climate resilient, higher-yielding varieties in farmers' hands.

#### UNDERSTANDING GENETIC FACTORS

'Big data' generated through the project enables us to understand which of the thousands of wheat genes control which traits and what the effect those genes have on yield.



Applied Wheat Genomics

**KANSAS STATE**  
UNIVERSITY



The Innovation Lab for Applied Wheat Genomics is using cutting-edge genomics and phenomics to accelerate development of climate-resilient, high-yielding and farmer-accepted wheat varieties—contributing to food and income sustainability in South Asia, and the world.



INNOVATION LAB FOR  
**APPLIED WHEAT GENOMICS**

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