



## THE BENEFITS OF U.S. INVESTMENT IN GLOBAL WHEAT RESEARCH COLLABORATION

The United States' investment in CGIAR Research Programs makes a vital contribution to agricultural improvements that fosters partnerships with U.S. public research universities, international research centers, private sector partners and others. Partnerships with CGIAR make it possible to do the “win-win” collaborative wheat research that helps meet global food needs, brings tremendous economic benefits to U.S. agriculture and leverages U.S. research dollars. The global wheat industry benefits from a robust system of international research collaboration that: provides access to improved varieties and yield gains; brings billions of dollars in productivity gains to wheat farmers; and protects crops from devastating pests and diseases.

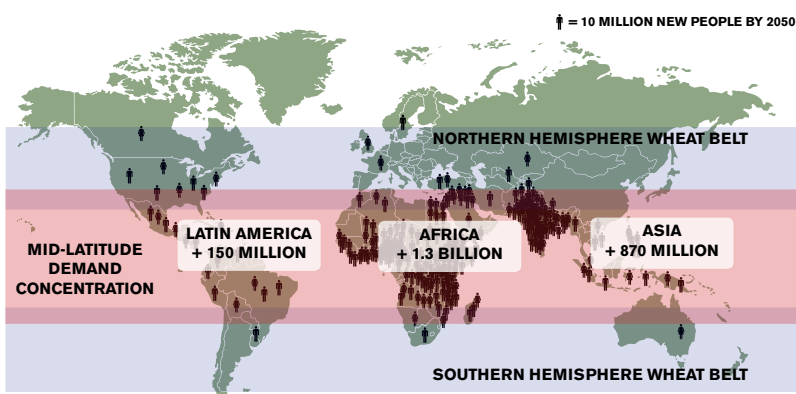
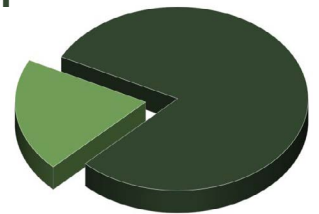
### A GLOBAL RESEARCH SYSTEM THAT SUPPORTS WHEAT IS CRITICAL.



Wheat is the world's most widely grown crop. In 2017/18 U.S. farmers produced 47.4 million metric tons of wheat on 37.5 million acres. Approximately 60 percent of the acreage planted in the United States uses CGIAR-related wheat

varieties. Globally, varieties on nearly half the world's wheat lands overall, including 70 to 80 percent of all wheat varieties released in South Asia, Central and West Asia and North Africa, are CGIAR-related.

Wheat provides **20%** of the daily protein and calories for **4.5 billion people.**



Source: U.N. Population Division Medium Variant Estimates

Wheat yields have increased in recent years but are not on track to meet the projected demand of the world's growing population. Additionally, the largest population gains over the next 40 years will occur in mid-latitude countries, not where most of the world's wheat is grown. Investments in the science that supports wheat productivity growth and protects crops against pests and diseases needs to be increased and made consistent and sustainable.

**With a predicted world population of 10 billion people by 2050, the demand for wheat is expected to increase by 50 percent. To meet that demand, wheat yields need to increase by 1.6 percent annually. Currently, they are increasing by less than 1 percent annually.**

# INVESTMENT IN INTERNATIONAL WHEAT RESEARCH YIELDS HIGH RETURNS.

CGIAR receives annual funding of about \$30 million for wheat, and studies show that annual economic benefits of CGIAR wheat breeding research range from \$2.2 to \$3.1 billion, representing a benefit-cost ratio of between 73:1 and 103:1, even by conservative estimates.

Every \$1  
of CGIAR  
funding



**\$73 to \$103**  
in annual economic benefits to  
global wheat farmers.



**CGIAR**

*Science for a food-secure future*

**CGIAR** is a global research partnership that unites organizations engaged in research for a food-secured future. CGIAR research is dedicated to reducing rural poverty, increasing food security, improving human health and nutrition, and ensuring sustainable management of natural resources. Research is carried out by 15 Centers, in close collaboration with hundreds of partners around the globe, including national and regional research institutes, civil society organizations, academia, development organizations and the private sector.

**Two CGIAR centers - CIMMYT and ICARDA - are developing One Global Wheat Program and are closely collaborating under the CGIAR Research Program on Wheat.**



The International Maize and Wheat Improvement Center (CIMMYT) is a CGIAR Research Center and the global leader in publicly-funded maize and wheat research and related farming systems. CIMMYT works with hundreds of partners throughout the developing world and the United States to increase the productivity of maize and wheat cropping systems sustainably, improve global food security and reduce poverty. CIMMYT's international wheat improvement generates US\$500 million per year in economic benefits. The CIMMYT wheat improvement spillovers in the United States alone amply repay, at a 32 to 40 times rate, the total U.S. contribution to CIMMYT's wheat improvement research budget.



The International Center for Agricultural Research in the Dry Areas (ICARDA) is a CGIAR Research Center strategically located across Africa, Asia and the Middle East, that works to improve agricultural and natural resources management in dry areas for sustainably improving food, water and nutritional security, and reducing poverty. ICARDA has partnered with U.S. universities such as Kansas State University to deliver award winning innovations that have protected U.S. and global farmers from millions in crop losses from destructive pests.

Other U.S. universities that partner with CGIAR on wheat research include: Cornell University; Colorado State University; Oklahoma State University; Oregon State University; Texas A&M University; University of California Davis; University of Minnesota; University of Nebraska; University of Vermont; and Washington State University, among others.



[WWW.USWHEAT.ORG](http://WWW.USWHEAT.ORG)

USW's mission is to develop, maintain, and expand international markets to enhance wheat's profitability for U.S. wheat producers and its value for their customers in more than 100 countries. Its activities are made possible through producer checkoff dollars managed by 17 state wheat commissions and cost-share funding provided by USDA's Foreign Agricultural Service.