U.S. WHEAT

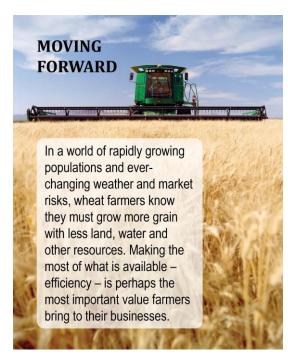
A GLOBAL LEADER IN SUSTAINABILITY

In Brief:

— U.S. wheat farmers work every day to contribute to a sustainable future in agriculture. Sustainability is reflected in agronomic practices, research and development, and transportation methods, all of which contribute to making the United States a sustainable source of wheat for export. Sustainability is also about innovation—reducing inputs while producing better wheat varieties to increase yields and provide consistently high-quality wheat to customers around the world.

Environmental Stewardship: A commitment to continuous improvement

- On average, U.S. farmers grow over 50 million tonnes (2 billion bushels) of wheat on over 20 million hectares (50+ million acres) of land across 42 U.S. states.
- U.S. wheat is a very water efficient crop. In fact, only 5% of U.S. wheat production area was irrigated in 2011.
- Since 1980, U.S. wheat farmers have increased total wheat yields by more than 25%. That means they can
 produce more wheat on less land. These yield gains have been achieved through improved agronomic
 practices, including:
 - Direct seeding, no-till methods that improve soil carbon sequestration;
 - Integrated pest management;
 - Precision nitrogen application;
 - Crop rotations to break disease cycles and reduce the use of pesticides and fungicides while improving overall soil fertility.
- Since 1980, soil erosion has declined by 63%, and U.S. wheat used 16% less irrigation water and had 35% less energy usage.
- State wheat commissions, nonprofit organizations funded by wheat producers, annually invest more than \$12 million in wheat research focused on key factors in improving sustainability, including increasing yields, pest resistance and disease resistance, while decreasing inputs. They often have robust partnerships with public university research programs.
- Publicly-funded wheat research places a priority on maintaining the highest milling and baking quality, ensuring that agronomic progress does not sacrifice important end-use qualities.

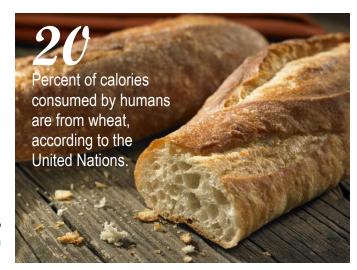






Social Responsibility: A commitment to future generations

- U.S. wheat farmers' livelihoods, their ability to feed a growing population and the legacy they pass on to their children all depend on taking care of the land and using natural resources wisely.
- Today, U.S. farmers grow more than 20 million hectares (50 million acres) of wheat, providing food for millions of people at home and abroad and supporting jobs in rural communities as well as mills, bakeries, grocery stores and restaurants.
- Wheat is a dietary staple. It is the source of 20% of the world's caloric intake and 20% of protein for the world's poorest people.



- Increased production and trade are critical to the discussion of how to feed the world's growing population because demand is rising fastest in equatorial regions that are unable to produce enough wheat to feed the people.
- More than 21 million American jobs have their root in the U.S. food and fiber industry more than five times as many workers as the U.S. automotive manufacturing, sales and service sectors combined.

Economic Profitability: A commitment to long-term viability

- Sustainability is about smart business using more efficient production methods to reduce inputs while
 increasing yields and food quality.
- An independent study conducted in 2016 showed that every \$1 invested by U.S. wheat farmers and the
 U.S. government in wheat export programs returns \$149 in gross revenue to the U.S. economy.
- In 2018, overseas sales of wheat accounted for \$4.8 billion.
- Agricultural production is the backbone of rural economies. Wheat farmers support their local economies
 by buying inputs from local suppliers, selling their products to local elevators, paying property taxes and
 frequenting local businesses.
- A large portion of U.S. wheat is transported for export via barge. River-going barges can move one ton of cargo 245 kilometers on one liter of fuel, 179 kilometers farther than a truck.
- U.S. wheat is also moved via rail to export terminals. Railroads are considered the most fuel-efficient
 method of surface transportation and are 3 times more efficient than trucking. Rail can move up to one
 tonne of freight 213 kilometers on just one litre of fuel, and rail technology is improving every day.

Resources

Wheat 101: Key Facts About the World's Essential Grain, National Association of Wheat Growers. Field to Market (2016 V3). Environmental and Socioeconomic Indicators for Measuring Outcomes of On Farm Agricultural Production in the United States, December 2016.
USDA Economic Research Service, Wheat Data Set, August 2018.



