# U.S. CORN

# A GLOBAL LEADER IN SUSTAINABILITY

#### In Brief:

— America's corn farmers are committed to meeting sustainability challenges through careful stewardship of the land, constantly improving technology to support sustainable intensification globally and expanded trade to minimize the use by marginal producers of low-productivity and environmentally fragile lands. U.S. corn farmers are committed to continuous improvement in the production of corn, a versatile crop providing food, feed, renewable energy, biobased products and ecosystem services. As stewards of the land, corn farmers understand the responsibility they have for creating a more environmentally and economically sustainable world for future generations via transparency and through continued advances and efficiencies in land, water and energy use.

## Environmental Stewardship: A commitment to continuous improvement

- Advanced production methods such as reduced-till and no-till planting greatly reduce energy consumption, soil loss, pesticide use and greenhouse gas emissions while enhancing yields.
- From 1980 through 2015, U.S. corn yields (tonnes/hectare) increased 61%, a pace unmatched by any other major world crop.
- In the 1980-2015 period, U.S. corn producers achieved declines per unit of production in soil erosion (-58%), irrigation (-46%), land use (-41%), energy use (-41%) and greenhouse gas emissions (-31%).
- Biotechnology is a critical tool used by U.S. corn farmers to produce a safe, high-yielding, quality crop in varying growing conditions while reducing the use of pesticides and fertilizers.
- Biotechnology is scale neutral. In 2018, of the 17 million farmers in 29 countries using agricultural biotechnology, 16 million were small-hold farmers in developing countries.
- GPS technology integrated with modern equipment allows farmers to map their fields with high precision and to vary plant density and the application of other inputs, all optimized for field conditions with accuracy measured within millimeters.
- 45% of U.S. farmers have adopted machine section control, a precise technology that fine tunes seed, fertilizer and spraying applications which helps to minimize overuse and reduces the number of field operations which in turn reduces the amount of fuel used by machinery.
- U.S. corn producers now supply more than 10% of U.S. automotive fuel needs (derived from ethanol), reducing carbon dioxide emissions by 47.3 million tonnes, the equivalent of removing 10.1 million cars from the road or eliminating annual emissions from 12 coal-fired power plants. The eight largest U.S. corn harvests have occurred in the last 10 years, demonstrating the reliability as well as the productivity of modern agricultural technology in both feeding and fueling the world.





While proud of their past success, corn farmers are not ready to stop there. They stand ready to meet the needs of the future and to continue to embrace the change that has brought them this far. Looking to 2030, corn farmers are committed to:

INCREASE LAND USE EFFICIENCY BY

12 %

INCREASE IRRIGATION WATER USE EFFICIENCY BY

13 %

INCREASE ENERGY USE EFFICIENCY BY

15 %

REDUCE GHG EMISSIONS BY

13 %

13 %

### Social Responsibility: A commitment to future generations

- Corn farmers grow the essential feedstock for an ethanol industry that in 2020 helped support more than 304,000 American jobs.
- An ethanol plant does not just make fuel. Co-products include livestock feed, corn oil and other products that contribute to the food supply. In other words, U.S. corn farmers are working to make food, feed and fuel from a bushel of corn.
- Managing mycotoxins in U.S. corn to safe levels continues to be a priority to uphold the safety and integrity of our global food supply.
- Corn is consistently the food and protein source of choice for beef and dairy cattle, poultry, swine, fish and other animals around the world because of its availability as a high-energy food product.
- An estimated 60% of U.S. grain exports travel on U.S. waterways en route to export grain elevators for inspection and loading onto bulk cargo ships.

#### **Economic Profitability: A commitment to long-term viability**

- The United States is the largest global producer of corn, growing nearly a third of the world's corn supply.
- In the 2019/2020 marketing year, U.S. farmers generated a record \$7.9 billion in corn exports.
- In 2020, the U.S. ethanol industry contributed nearly \$35 billion to U.S. Gross Domestic Product (GDP) and added \$18.6 billion to household income. This generated more than \$10 billion in tax revenue for federal, state and local governments.
- A 2015 study found that there are 16 sectors—from fast food companies to grocery retailers—that depend on U.S. corn as a key ingredient of their products or as a market for their inputs and services.

#### **Sources**

Water in Agriculture: Improving Corn Production Practices to Minimize Climate Risk and Optimize Profitability. Current Climate Change Reports, April 26, 2016

Essential Energy: 2021 Ethanol Industry Outlook. Renewable Fuels Association

Market Development Despite Policy, Pandemic Challenges. USGC 2020 Annual Report

Sustainability Report. National Corn Growers Association, 2021

International Service for the Acquisition of Agri-biotech



