

FACT SHEET

National Ethanol Industry

1. Economic Impact

The United States ethanol industry added \$52 billion to the Gross Domestic Product and \$10.4 billion in federal, state and local taxes in 2021. It also added \$28.7 billion in household income. The ethanol industry also spent more than \$21.4 billion on raw materials, inputs and other goods and services.

2. Employment

The nation's ethanol industry supports more than 407,000 jobs in all sectors of the economy.

3. Rural Economic Development

Each plant contributes to the local economy by providing jobs at above average wages and an additional market for locally grown corn. In 2021, a typical dry mill ethanol plant added approximately \$2.42 of additional value, or 40%, to every bushel of corn processed.

4. Production

In 2021, 15 billion gallons of ethanol was produced at 208 plants in 25 states. This is up from 13.8 billion gallons in 2020, which was attributed in part to the decreased worldwide fuel demand due to the COVID-19 pandemic. In 2021, most plants returned to near-normal, pre-pandemic production levels.

5. Consumption

Ethanol is blended with nearly every gallon of the nation's gasoline supply. The ethanol used in 2020 accounts for more than 10% of the nation's motor fuel supply, up from less than 1% 20 years ago. In addition, 1.2 billion gallons (roughly 10% of production) was exported in 2021. Canada (30%), India (12%) and South Korea Brazil (12%) are the top destinations for U.S. ethanol exports.

6. Corn Use

In 2021, the nation's ethanol industry used 5.1 billion bushels of corn, around 30% of corn produced, for ethanol and coproduct production, which includes 35.4 million metric tons of high-quality livestock feed.

7. Renewable Fuels Standard

The Renewable Fuels Standard requires 36 billion gallons of renewable fuels to be used annually by 2022. This includes 15 billion gallons of corn-based ethanol and 21 billion gallons of additional fuels created from biomass and cellulosic feedstock.

8. Reduced Gas Prices

Numerous studies show use of ethanol has reduced gas prices by more than \$1 per gallon, which is the equivalent to \$1,200 annually for the average American household.

9. Environmental Benefits

Ethanol use reduces greenhouse gas (GHG) emissions by as much as 50%. In 2021 alone, the use of ethanol reduced GHG emissions by 54.5 million metric tons, equivalent to taking 12 million cars off the road for an entire year.

10. Energy Security

The 15 billion gallons of ethanol used in the United States in 2021 displaced more than 530 million barrels of imported oil.

11. Co-Products

In 2021, the nation's ethanol industry produced 35.4 million metric tons (mmt) of distillers grains, gluten feed and gluten meal. These bio-products are valuable corn and soybean meal substitutes in rations used around the world to feed beef and dairy cows, pigs, chickens, turkeys, fish, and other animals. Approximately 11.6 mmt were exported in 2021 to more than 50 countries with half the exports going to Southeast and East Asia and another 20% going to Mexico. Also produced were 3.8 billion pounds of corn distillers oil, a \$2.1 billion market underpinning the production of biodiesel, renewable diesel and poultry feed. The industry also captured 2.7 million tons of CO₂, which was used for dry ice production, bottling, food processing, and other uses.

12. Increased Efficiency

One unit of energy invested in making ethanol yields up to 2.8 units of energy available to the consumer, on average. This is up from an average of 1.25 in 2006. Today, the top quarter of dry mill biorefineries average an energy balance of 3.2-3.4 and some achieve as high as 4.0.

13. Infrastructure

The USDA's Higher Blends Infrastructure Incentive Program (HBIIP) and ethanol industry initiatives, such as Prime the Pump, made E15 available at more than 2,300 stations across the nation, and more than 95% of vehicles on the road today are approved for E15.