

# Overview of Ethanol Production, Benefits and Demand

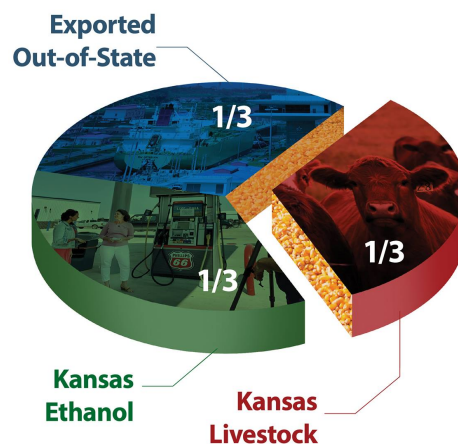


Josh Roe, Vice-President of Market Development and Policy  
Kansas Corn

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## A Piece of the Corn Pie

WHERE DOES KANSAS CORN GO?



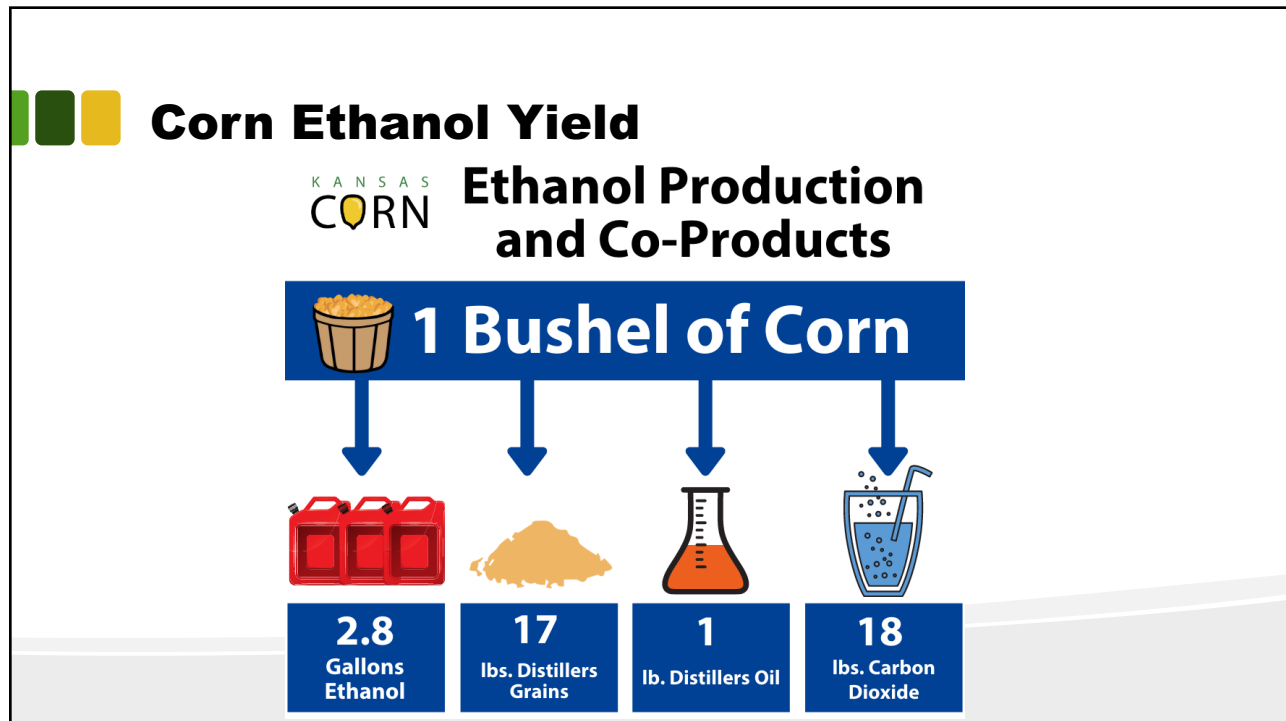
### Exports Have Value for Kansas Corn Farmers

- Corn exports for Kansas are valued at **\$575 million**
- Red meat exports are valued at **\$368 million** in Kansas corn revenue
- DDGS exports for Kansas are valued at **\$80 million**
- Ethanol exports are valued at **\$7.7 million**

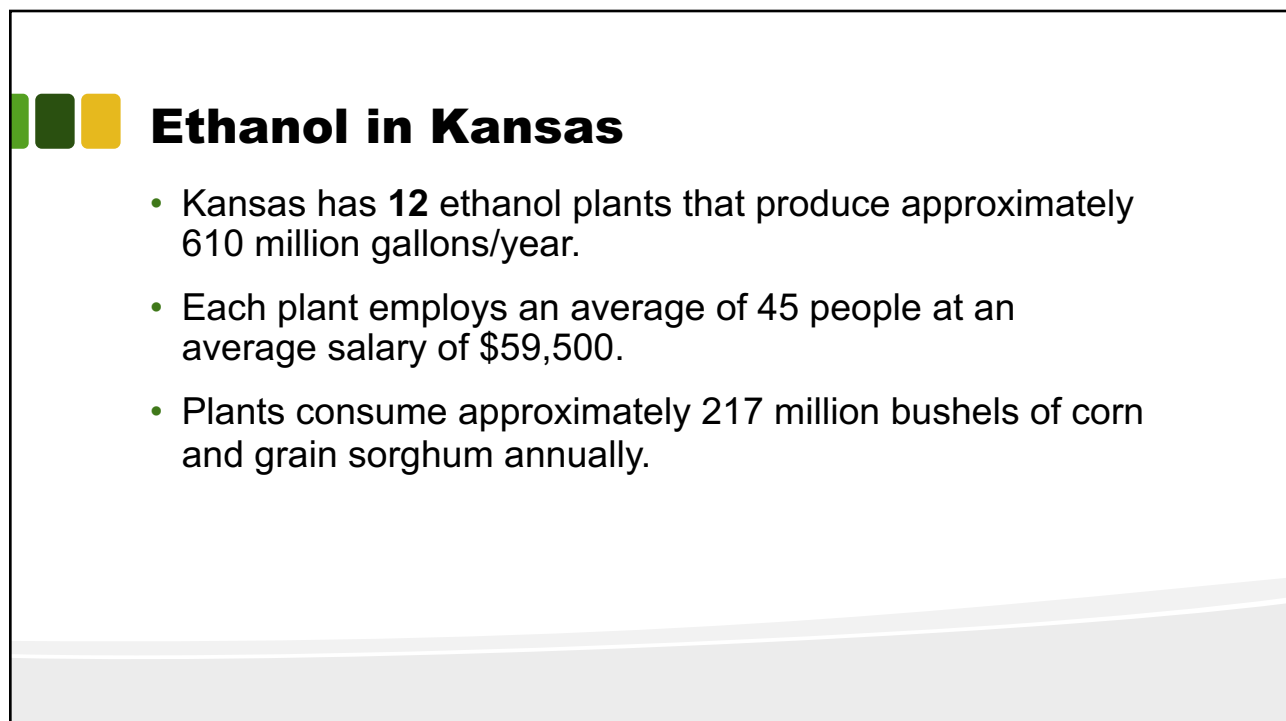
(Sources: US Grains Council; US Meat Export Federation)

KANSAS CORN

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## Environmental Benefits

- Blending more ethanol displaces and dilutes the most harmful hydrocarbon components in gasoline such as aromatics.
- Additional ethanol blending reduces exhaust emissions.
- According to a **January 2021 published Harvard and Tufts Univ study**, ethanol results in **46 percent fewer greenhouse gas (GHG) emissions** than gasoline.
- E15 has a lower RVP than E10 and, therefore, results in lower evaporative emissions, ***resulting in lower Ozone levels, the pollutant of greatest concern in the Kansas City Metro area.***

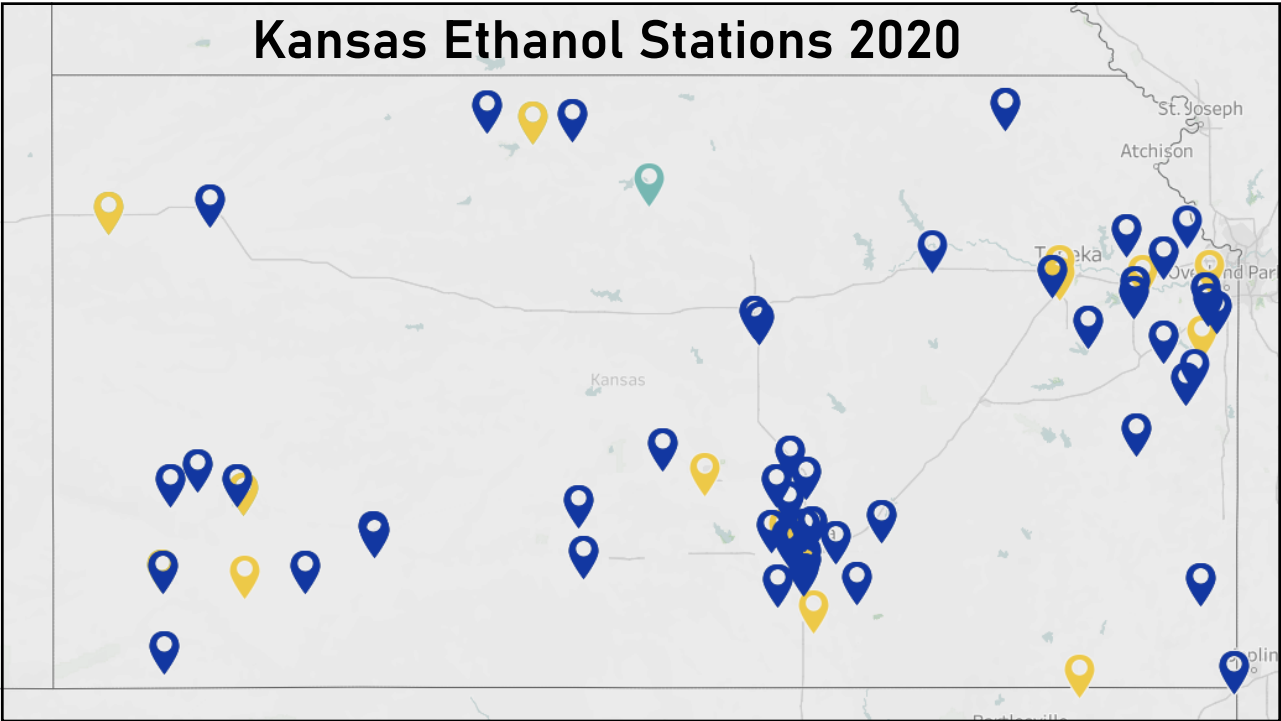
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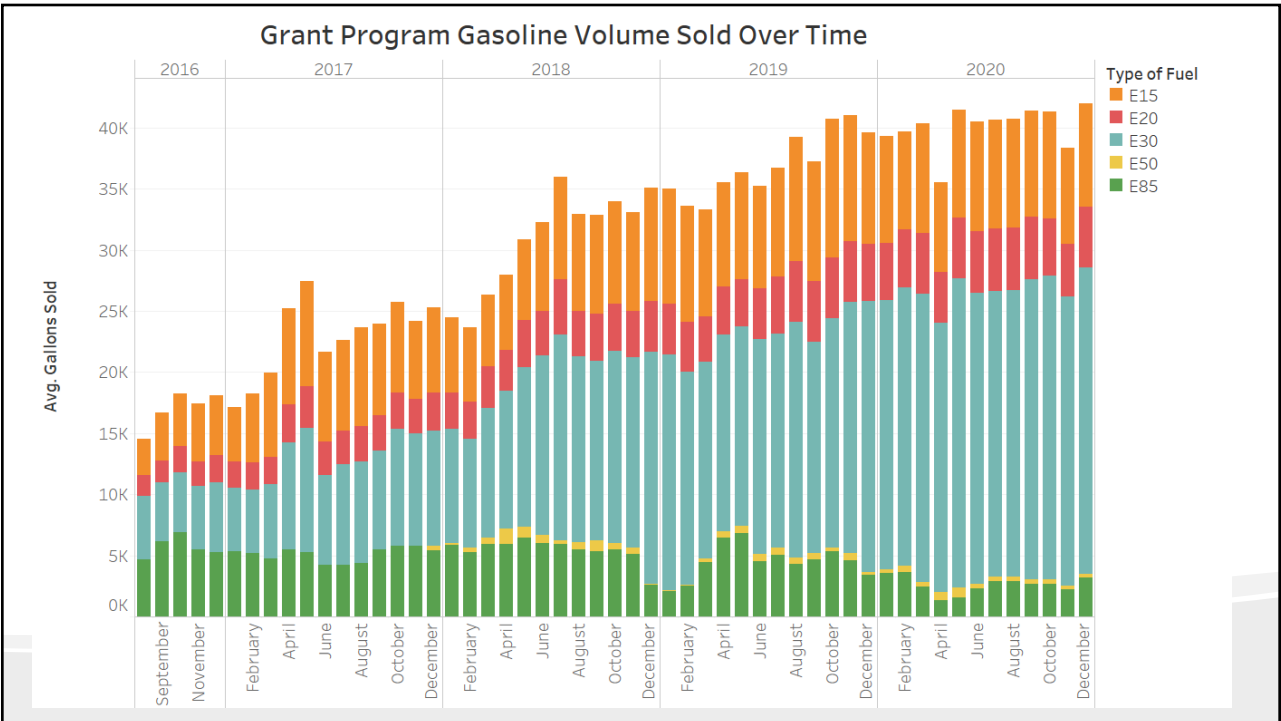
## Kansas Corn and Higher Blends

- Kansas Corn, Renew KS and Kansas Sorghum received USDA funding to provide cost-share for stations in 2016.
- First station offering blends through this program opened in fall of 2016.
- Kansas Corn Commission has continued grant program in absence of federal funding.
- Kansas Corn assisted in latest round of USDA funding with financial support from Sorghum and Renew KS.
  - Four companies representing nine locations funded.
  - Awaiting funding decisions on two more.

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## Sales Volumes

- 24 stations that Kansas Corn provided funding for blender pumps averaged 42% increase in E15 sales from 18-20
- High volume stations in the Kansas Corn grant program have averaged 60% annual sales increases since 2016 for E15 and 36% for E30, E50 and E85
- Nationwide, the Prime the Pump program has provided cost-share to over 10,000 retail locations in 20 states.
  - In 2019, Prime the Pump stations beat the national gasoline sales average by 250%!
- We saw growth in ethanol sales at most Kansas stations in 2020 despite reduced driving patterns.

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## Corn Demand Implications

- Converting high volume fuel retailers to sell higher blends has significant corn demand implications.
- A large, 16 dispenser station can sell 800,000 gallons of fuel per month.
- Assuming the average blends sold at successful Wichita stations:
  - 2.6 million gallons of ethanol per year
  - OR
  - **851,200 bushels of corn!**

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## Consumer Benefits

- E15 is EPA approved for all vehicles 2001 and newer.
  - More than 90% of the cars on the road today.
  - Expecting changes to E15 label requirements by spring.
- E15 is normally priced 5 cents below E10, newer, high compression vehicles experience little to no decrease in efficiency.
- Flex fuel vehicles see increased efficiency for E30-E50 blends.

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## Looking ahead-Opportunities

- Approval of year-round E15 sales in the KC Metro Area.
- A high-octane low carbon (HOLC) fuel standard could increase demand for ethanol while improving fuel economy and saving consumer's money.
- Continued efficiencies from the farm gate to the ethanol plant continue to reduce carbon intensity.

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## Headwinds

- Short:
  - Another round of COVID lockdowns leading to decreased fuel demand.
  - Implications of a dry summer or prolonged drought.
- Medium/Long:
  - Ethanol demand degradation due to expanded incentives and mandates for electric vehicles.
  - Shocks to the livestock sector.

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## Thank you!

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