

NATIONAL
CORN GROWERS
ASSOCIATION

2020 MID-YEAR REPORT



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NCGA’s Shoulder is to the Wheel to Meet the Challenges of 2020

2020 began with reason for optimism in our industry. The signing of the USMCA trade deal, emerging corn purchases by China, a successful challenge to EPA granting RFS waivers and approval of year-round sales of E15 had us all looking for an economic rebound. Then the unthinkable happened as a pandemic stunned the world.



Through it all farmers have answered the bell, responding in admirable fashion, putting us on track to produce an abundant crop. In response, NCGA is upping its efforts as well to reflect our concern for the business and mental health of growers, their families, and their communities. We have shared information on COVID-19 management on the farm, dealing with stress, and making sure you are fully utilizing the programs made available since the last farm program.

We are focused on keeping farmers in business. We continue to advocate on your behalf in Washington to get assistance for corn growers; work to get packers up and running; keep trade cranking and take the necessary steps to fire up ethanol plants. While we acknowledge the current realities, we are committed to addressing the mid-term and long-term needs of farmers.

We hope this report serves as a reminder that you are not alone. Our leaders and staff recognize the hurdles you face and the hard work and adjustments you are undertaking to keep your farm and business afloat.

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NCGA is Working to Rebuild Demand by Expanding Markets

NCGA, along with our state partners, is focused on rebuilding markets for corn farmers by growing ethanol utilization, increasing exports of corn and corn products, finding new uses for corn, and building upon our relationship with animal agriculture partners.

Increasing Exports of Corn and Corn Products

USMCA Moves Forward

Passing USMCA was NCGA's top legislative priority for 2019. Following overwhelming Congressional support for the trade deal, the new USMCA legislation was signed by the President in January 2020. USMCA delivers a big win to American agriculture by securing and building upon the relationship with Mexico and Canada, the U.S. corn industry's largest, most reliable market. Kevin Ross attended the White House signing along with Ohio Corn and Wheat Growers Association President Patty Mann, Minnesota Corn Growers Association President Les Anderson, and Wisconsin Corn Growers Association President Doug Rebout.

21.4 million metric tons of corn and corn co-products, valued at \$4.56 billion, were exported to Mexico and Canada in 2018.

What's Next on the Horizon for Trade?

NCGA is building upon the momentum that was gained after securing U.S. trade relationships with Mexico, Canada, Korea, and Japan. It is time to forge new trade agreements with strategic partners that offer new growth opportunities for U.S. corn and corn product exports. With the rapid global population and middle-class growth projected for Southeast Asia, India and sub-Saharan Africa, these regions require sustained U.S. engagement. We must continue to nurture and expand upon our successful partnerships in Latin America as well. Additionally, NCGA will work to build widespread recognition of the growth of ethanol exports and the importance of that opportunity for the U.S. corn industry.

Phase One China Trade Deal: A Step in the Right Direction

NCGA President Kevin Ross attended a White House ceremony to commemorate the signing of the Phase One deal between the United States and China. This agreement marks a step in the right direction to resolving the trade dispute with China and restoring the trading relationship between our two countries. China holds tremendous opportunities for American corn, ethanol, and DDGs, and all three commodities are eligible for China's purchase commitments of \$80 billion in agricultural products over two years. The agreement also includes significant promises to reform standing non-tariff trade barriers, including China's process for regulating biotechnology products for import.



We see opportunities to achieve market access gains and address non-tariff barriers in the U.S. government's negotiations with the United Kingdom, the European Union and Kenya. NCGA will seek to ensure that agriculture is part of these and any other trade negotiations.

Why Trade Matters for Corn Farmers

As the world's largest producer and exporter of corn, U.S. corn farmers are well-positioned to meet global demand. With 96 percent of consumers living outside the United States, the future of American agriculture largely depends on our ability to sell to foreign markets.

Exports are responsible for 33 percent of U.S. corn farmers' income. More than 20 percent of the U.S. corn crop is exported annually when accounting for corn and value-added products like ethanol and distillers dried grains with solubles (DDGS). Twenty-six percent of U.S. corn exports go to Canada and Mexico alone.

Trade School

In 2020, NCGA and U.S. Grains Council (USGC), took our popular Trade School program on the road. NCGA and USGC partnered with state corn organizations to host five regional trade schools in Maryland, Indiana, Illinois, Kansas and Colorado. More than 200 growers participated in this educational series designed to continue grassroots education and engagement on trade issues. Participants learned about the history and economics behind U.S. trade policy, how market development works, and current events in trade policy. They received training on how to effectively communicate about trade.



MAIZALL

NCGA co-chairs MAIZALL with the U.S. Grains Council, and corn grower associations from Argentina and Brazil. MAIZALL, the International Maize Alliance, is an initiative that communicates the benefits of modern agriculture, addresses asynchronous approval of biotechnology products, and promotes regulatory harmonization to confront trade barriers to important agricultural technologies. MAIZALL's farmer directors meet regularly with high-level government officials and engage with international multilateral institutions to ensure the farmer's perspective is heard on these important topics.



21.4 MILLION METRIC TONS
\$4.56 BILLION

EXPORTED TO MEXICO & CANADA 2018

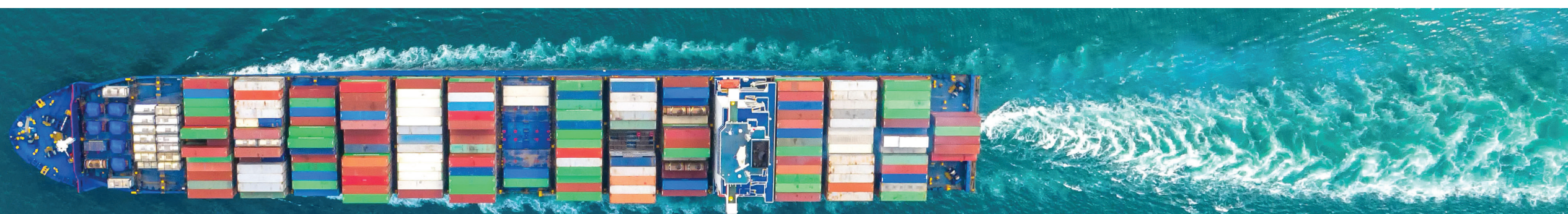
21.4 million metric tons of corn and corn co-products, valued at \$4.56 billion, were exported to Mexico and Canada in 2018.

\$80 Billion
UNITED STATES AND CHINA

Corn, ethanol, and DDGs, are eligible for China's purchase commitments of \$80 billion in agricultural products over 2 years.

33%
U.S. CORN FARMER INCOME

More than 20% of the U.S. corn crop is exported annually when accounting for corn and value-added products like ethanol and distillers dried grains with solubles (DDGS). 26% of U.S. corn exports go to Canada and Mexico alone.



Recovering Demand for Ethanol

Work Continues to Bring High-Octane Low-Carbon Fuel to Consumers

NCGA continues driving future ethanol demand by positively impacting corn farmers by advocating for Low Carbon Octane Standard (LCOS) legislation. Corn ethanol is uniquely positioned to improve performance in auto engines by meeting consumer demand for efficient, environmentally friendly, and safe motor fuel. Studies have shown to optimize the performance of future engines, a high-octane, low-carbon fuel could utilize between 20-40 percent ethanol compared to the 10-15 percent blends standard across the United States today. The move toward higher octane, lower carbon fuels will not occur overnight, and NCGA is moving swiftly to plan for future ethanol demand positively impacting farmers for the future. A high-octane low-carbon fuel in the marketplace could increase annual ethanol usage by 5 billion gallons or more. That's 1.8 billion bushels of corn annually, nearly the same amount of forecasted corn carryout from 2019.

Fuel Dispenser Infrastructure

Over the past three years, NCGA has partnered with Wayne Fueling Systems to produce and sell fuel pumps certified to deliver fuel containing up to 25 percent ethanol and working to push that certification up to 40 percent ethanol. Thanks to this key partnership, NCGA has supported the sale of more than 50,000 new fuel pumps across the U.S., building out the infrastructure needed to support future mid-level blends of ethanol. NCGA continues conversations with other additional fuel dispenser manufacturers to expand this program.

Helping Gas Stations Upgrade Equipment

NCGA has partnered with industry to help retailers apply for the United States Department of Agriculture (USDA) Higher Blends Infrastructure Incentive Program (HBIIIP). The \$100 million program is designed to expand availability of higher blends of ethanol, like E15 and E85.

NCGA also works closely with the Renewable Fuels Association (RFA) on station equipment assessments, to verify compatibility for higher blends like E15 and E85. In the first year, RFA conducted over 1,700 and this work is ongoing in 2020.

In conjunction with the American Coalition for Ethanol (ACE), NCGA supports the [Flex Fuel Forward website](#), expanding E15 and other flex fuels in the marketplace.



#DYK CORN USAGE FOR ETHANOL HAS GROWN BY 45% FROM 2008 TO 2018. NCGA IS WORKING TO CONTINUE THE GROWTH OF CORN-BASED ETHANOL BY ANOTHER 5 BILLION GALLONS OR MORE THROUGH HIGH-OCTANE LOW-CARBON FUEL.¹

#DYK 1 BUSHEL OF CORN PRODUCES 2.9 GALLONS OF ETHANOL. A TYPICAL DRY MILL ETHANOL PLANT ADDS ROUGHLY \$1.20 OF ADDITIONAL VALUE OR 31% TO EVERY BUSHEL OF CORN PROCESSED.²

Setting the Stage for Success with E15 in California

NCGA, along with state partners, Growth Energy, and RFA, has begun engine testing at the University of California at Riverside with the California Air Resources Board (CARB). CARB is a part of the California Environmental Protection Agency (EPA) and is the clean air agency for the state.

The testing is designed to show the environmental benefits and compatibility of E15 in selected makes and models of vehicles. This is an important step, paving the way for E15 and higher blends of ethanol in California.

Why is this important? If we can achieve E15 as the base fuel in California, based on estimated total gasoline usage in the state in 2015³, the potential market opportunity would be roughly 750 million gallons or 260 million bushels.

A Win in the Courts: Tenth Circuit Decision

In a challenge filed by NCGA and industry partners, the Tenth Circuit U.S. Court of Appeals ruled the Environmental Protection Agency (EPA) exceeded its authority in granting Renewable Fuel Standard (RFS) exemptions to three refineries in 2016 and 2017. NCGA was successful in urging the Administration not to appeal this decision and are now advocating for EPA to apply this decision nationally and uphold the RFS.

Busting Myths with Boaters

NCGA, in partnership with RFA, sponsors the Crappie Masters National Tournament Trail to engage with anglers on the benefits of using E10 in their boats. This is the fifth year of the partnership, and each winning team of the Crappie Masters National Tournament Trail has used ethanol in their boat engines, citing maximum engine performance. Through this partnership, NCGA has opportunities to address anglers and members of the public about ethanol. Crappie Masters has expanded this year, with 15 new state tournament trails and chapters. Throughout the season, it is estimated that more than 200 million people are reached and educated on ethanol and boating through the tournaments, Crappie Masters TV, social media, additional media interviews and more.



One-Year of Year-Round E15

NCGA was instrumental in achieving year-round E15, eliminating the outdated regulatory ban. Since the ban was lifted, there was instant E15 growth in the marketplace. Retailers we have close working relationships with, like Casey's General Store, are committed to increasing E15 demand by retrofitting stations to be able to handle E15 making it the base fuel at new stations. The number of E15 locations has grown roughly 22.5 percent in the past year. American drivers have logged 14-billion miles with E15.

50,000

NEW FUEL PUMPS ACROSS THE US

Thanks to this key partnership with [Wayne Fueling Systems](#), NCGA has supported the sale of more than 50,000 new fuel pumps across the U.S., building out the infrastructure needed to support future mid-level blends of ethanol.

750 Million

GALLONS OR 260 MILLION BUSHEL

If we can achieve E15 as the base fuel in California, based on estimated gasoline usage in the state in 2015, the potential market opportunity would be roughly 750 million gallons or 260 million bushels.

5 Billion

INCREASE IN ETHANOL USEAGE

That's 1.8 billion bushels of corn annually, nearly the same amount of forecasted corn carryout from 2019, with [High-Octane Low-Carbon](#) fuel in the marketplace.

22.5%

GROWTH E15 LOCATIONS IN 1 YEAR

The number of E15 locations has grown roughly 22.5% in the past year. American drivers have logged 14-billion miles with E15.

Building Future Markets for Corn

Corn Grain as an Acceptable Feedstock

It takes time to lay the groundwork and develop a solid foundation for future markets for corn. One of the primary areas of potential is in bioplastics. To help drive discussions with potential partners, NCGA recently updated the Corn as an Industrial Feedstock booklet, adding a section on meeting societal needs. You can view and download the updated document [here](#).



NCGA and state staff, along with grower leaders have been in discussions with the Department of Energy's (DOE) Office of Energy Efficiency & Renewable Energy (EERE) and Bioenergy Technologies Office (BETO) to talk about corn grain as an acceptable feedstock for agency funding and testing in national laboratories. [BETO](#) works to develop industrially relevant technologies to enable domestically produced biofuels and bioproducts.

In the most recent Funding Opportunity Announcement (FOA), BETO lifted the restriction on corn grain as an acceptable feedstock. This means that starch derived sugars, specifically starches from field/feed corn, were clarified as acceptable. Timing of this is important because it means those looking for funding opportunities through BETO's [Plastics Innovations Challenge](#) can use corn as a base for recycling technologies in the manufacture of new plastics.

An example of a product that could now be developed to use corn grain as a feedstock is single-use plastics such as water bottles and plastic bags. If corn were to displace all petro-based ethylene with corn sugars-

based ethylene, the market potential would be an estimated additional 10 billion bushels.

Consider Corn Challenge Winners Obtain Additional Funding

NCGA has held two Consider Corn Challenge contests, garnering nine winners with unique technologies that would improve a product or process by using field corn to produce biobased materials. Recently, [ExoPolymer](#) announced the Investment Group of Santa Barbara (IGSB) is providing seed money to help them continue to conduct research for targeted markets. ExoPolymer produces biopolymers. Furthermore, Exopolymer received first-round funding from USDA for a Small Business Innovation Research (SBIR) grant.



Another example of a previous Consider Corn Challenge winner who has continued to receive funding and expand is [Lygos](#). Lygos produces Bio-Malonic acid (Bio-MA) from renewable sugars using cutting edge biotechnology.

If all nine of the Consider Corn Challenge winners reached full commercialization with products available in the marketplace, the potential for additional corn demand would be approximately 2.9 billion bushels.

Reaching Our Animal Agriculture End Users

Through the National Cattlemen's Beef Association (NCBA) Cattlemen's Education Series, NCGA has reached over 4,000 cattle producers across 14 states. The program focuses on cattle production efficiency, profitability and sustainability. The series is an opportunity to share research on the value of corn and corn-based feed ingredients provide within feed rations. NCGA staff and grower leaders participated in one of the recent webinars on health issues in mid to late fed cattle. You can view it [here](#). The beef cattle industry consumes more than 1.2 billion bushels of corn. Beef cattle are consistently one of corn's largest animal agriculture customers.



Collaborating with Animal Agriculture Partners on Sustainability

NCGA works closely with animal ag partners representing the beef, dairy, poultry, and swine industries to continuously strengthen customer and consumer trust in feed and animal production practices while supporting the industry's future value proposition. Animal agriculture is the single largest user of corn, and when including DDGs under the lens of corn consumption, it represents close to a 6.75-billion-bushel demand segment. Milestone accomplishments have been achieved by reducing greenhouse gas emissions, lowering carbon footprints, increasing water conservation, and further building and maintaining soil health. As U.S. animal agriculture continues to grow more sustainable through enhanced, more scientific production practices, American agriculturalists take a heightened competitive place in the domestic and global market, equating to more dollars in grower pockets.

10 Billion

BUSHEL MARKET POTENTIAL

If corn were to displace all petro-based ethylene with corn sugars-based ethylene, for plastics such as water bottles and bags, the market potential could use more than 10 billion bushels.

2.9 Billion

BUSHEL MARKET POTENTIAL

If all 9 of the [Consider Corn Challenge winners](#) reached full commercialization with products available in the marketplace, the potential for additional corn demand would be approximately 2.9 billion bushels.

1.2 Billion

BUSHEL CONSUMED BY BEEF CATTLE

The [beef cattle](#) industry consumes more than 1.2 billion bushels of corn. Beef cattle are consistently one of corn's largest animal agriculture customers.



NCGA is Driving Sustainability

Corn farmers have been leaders in adopting farming practices to improve soil health, air quality and water quality. NCGA, along with state corn partners, have been leaders in driving change to the intersection of environmental improvement and economic success.

Recognizing Success in Stewardship

Early in 2020, NCGA, in partnership with the Environmental Defense Fund, launched the [Success in Stewardship Network](#) to recognize growers dedicated to improving environmental sustainability. The network aims to break down the notion that only an elite group of farmers are dedicated to stewardship and celebrate all those who continue to make that commitment.

Conservation practices that protect the land and water are accessible, profitable, scalable – and surprisingly ordinary on farms across America. NCGA is producing and sharing a [series of farmer stewardship profiles](#) to showcase the enormous progress already made and the momentum in the industry today.

Recognition programs like the Success in Stewardship Network are important for amplifying the positive sustainability story of today's agriculture, especially with non-traditional partners like the Environmental Defense Fund. Visit the [NCGA website](#) for more information on how to get involved.



Defending Access to Farm Inputs

It is no secret that grower access to farm inputs remains an ongoing battle. NCGA proudly represents all corn growers to ensure continued and long-term availability of the many products used in corn production today. For example, as EPA considered the reregistration of atrazine, NCGA and state corn organizations mobilized to drive farmer comments to the agency compelling them to reregister atrazine. NCGA's mobilization resulted in more than 2,771 individual farmer comments being sent to the EPA, in addition to NCGA's comments. NCGA also submitted comments on behalf of corn growers to maintain access to products like glyphosate, metolachlor and several neonicotinoids.



Soil Health Partnership: Business Case Highlights Benefits of Cover Crops

Mike Buis started working with the Soil Health Partnership to experiment with cover crops on his highly erodible land. On his SHP research field, SHP was able to measure the economic benefits of cover crops to identify immediate changes and long-term improvements.

Mike saw a higher organic matter in his cover crop strips when compared to his control strips, resulting in profitable weed control. The business case showed that Mike saved on average ten dollars an acre in reduced herbicide use.

This is [the first business case in a series](#) of business cases that will be released this year. The Soil Health Partnership (SHP) is a farmer-led initiative that fosters transformation in agriculture through improved soil health, benefiting both farmer profitability and the environment. The SHP uses science and data to work alongside farmers in adopting practical agricultural practices that improve the economic and environmental sustainability of the farm. Administered by NCGA, the partnership has more than 200 working farms enrolled in 16 states. The SHP brings together broad and diverse partners to work towards common goals across the public, private and NGO sectors.



Demonstrating Commitment to the Ecosystem



Ongoing efforts by NCGA to support pollinator health demonstrate farmer commitment to a strong current and future ecosystem in corn-growing regions. NCGA works to increase opportunities for farmers to plant pollinator habitat on their farms by supporting cost-share programs and working with federal agencies to increase flexibility in the requirements for establishing habitat on ag lands enrolled in federal programs, like CRP. As the U.S. Fish and Wildlife considers a petition to list the monarch butterfly as an endangered species, its important now more than ever to showcase farmer dedication to a healthy and thriving environment. NCGA is an active participant in the Honeybee Health Coalition, Farmers for Monarchs, EDF Monarch Butterfly Habitat Exchange. If you are interested in free seed to establish pollinator habitat on your farm, contact NCGA or reach out to our partner, the [Bee and Butterfly Habitat Fund](#).

NCGA Tackling the Tar Spot Challenge

Although largely ignored until 2018 in the U.S., the Tar Spot fungus is now generating interest driven by its ability to severely crush corn yields. In fact, some fields suffered yield losses ranging from 25-60 bushels an acre that year. Its effects are already being felt in Illinois, Indiana, Michigan, Minnesota, Missouri, Ohio, Iowa and even Florida. NCGA, with the support of state corn checkoff dollars, is pursuing research for rapid development of management strategies to reduce its impact. Aided by an Foundation for Food and Agricultural Research (FFAR) grant, we are assessing germplasm for potential sources of resistance. Five lines have been identified thus far with strong potential. Work is also underway to develop a Tar Spotter App for smartphones to assist growers in identifying Tar Spot, relay potential fungicide treatments and to establish economic thresholds for treatment.

National Corn Growers Association's research partner on Tar Spot disease Dr. Nathan Kleczewski has posted a brief educational [webinar](#) to help you prepare to identify this emerging – and potentially yield killing – fungus in corn.



Building Trust a Key Strategy

As Americans get further removed from the farm, they have questions about what they feed their family and how it is grown and raised. NCGA is working on many fronts to share the positive story of modern agriculture and encourage the next generation to help us in this quest to feed and fuel the world.

CommonGround Network and Impact Continues to Grow

[CommonGround](#) is a credible resource for consumers. This inclusive community of women creates a place for positive conversation. It has grown into an impactful platform for real women, on farms and in urban and suburban areas, to share their stories, concerns and feelings about food, how it is grown and how it is raised.

From 14 volunteers in only three states when it launched in 2010, to more than 200 women farmers across 21 states today, we’ve come together. Working with a grassroots up approach, we’ve built an invaluable support system, empowered one another to find our voices, and are making a real difference – one conversation at a time. By sharing our personal experiences, along with science and research, we are helping to change the way consumers think about food and agriculture.



1 Billion

COMMONGROUND TOUCHPOINTS

Over the past **10** years CommonGround has, held **800** state events, **70,000** in-person conversations, **8,295** media stories, and reached **800 million** people online – In total, more than **1 billion** touchpoints and counting.

Over the past ten years, we’ve accomplished so much thanks to the confidence and bravery of our volunteers who stepped out of their comfort zones and into the spotlight to share their stories and shed light on the truth.

- 800 state events
- Nearly 70,000 in-person conversations
- 8,295 media stories
- 800 million people reached online
- In total – more than 1 billion touchpoints and counting every day.

Exposing Students to the Possibilities of Ag is a Critical Effort

Nourish the Future, a program made possible by farmer-funded state corn checkoff programs across the U.S., provides excellent teaching resources that have become even more important as teachers tackle online education. The mission is to teach the ag-based curriculum in the science classroom, inspire students to solve real-world science issues, and inspiring students to fill the job gap in agriculture-related careers, many of which go unfilled.



- Twenty teachers from 15 different states were recruited as part of the Teacher Leadership Community and attended Commodity Classic, where they received exposure to the industry and training on curriculum.
- Teachers stay engaged through ongoing professional development webinars and an online Slack community.
- Teachers are required to write one new lesson and conduct a training session using the curriculum at the local, state, regional or national levels.
- All lessons written by the Teacher Leaders will be available through the [Nourish the Future website](#).





2020 MID-YEAR REPORT

Endnotes

- 1 USDA ERS Fed Grains Yearbook
- 2 <https://ethanolrfa.org/wp-content/uploads/2020/02/2020-Outlook-Final-for-Website.pdf>
- 3 https://ww2.energy.ca.gov/almanac/transportation_data/gasoline/



About the National Corn Growers Association

Founded in 1957, the National Corn Growers Association represents nearly 40,000 dues-paying corn farmers nationwide and the interests of more than 300,000 growers who contribute through corn checkoff programs in their states. NCGA and its 50 affiliated state organizations work together to create and increase opportunities for corn growers.

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