

**2020 State of the Industry Address**  
**25th Annual National Ethanol Conference**  
**Geoff Cooper, President and CEO**  
*(As Prepared)*

I was probably 13 or 14 years old when my dad decided I was old enough to cut hay by myself. So, he turned me loose in one of the alfalfa fields in an old New Holland windrower like this one.

I know some of the farmers in the audience probably call this machine a swather, but where I grew up, it's a windrower.

Now, I must admit I was more than a little nervous when I started my first pass across the field without Dad or anyone else in the cab with me. Dad had already cut the borders of the field and, naturally, they were completely straight.

So, of course, I was really worried about leaving perfectly straight windrows, too. I was so worried, in fact, that I couldn't stop myself from constantly looking out the back window to see if the rows were straight as I went along.

The problem with looking behind you, though, is that you're not paying attention to what is happening in front of you. You can't see what's coming at you or if you're lined up correctly. I learned that lesson the hard way.

Every time I would turn to briefly look out the front windshield, I would see that I was heading off course—then I'd over-correct, and then my urge to look behind me would take over again. This vicious cycle kept repeating itself.

The more I looked backward, the worse things got, and by the time I got to the edge of the field, I had left a terribly crooked windrow in my wake. This went on for another few passes across the field, before my dad finally waved me down.

He said, "Son, you're going about this all wrong." He said, "You have got to keep your focus ahead of you. If you want to stay straight, you have to know where you're going. You need to pick a point on the horizon—then get everything lined up and go." He said, "Sure, you need to look back occasionally just to make sure you are leaving a straight row for the bailer to pick up. But the real key to making hay is keeping your focus forward."

I didn't know it at the time, but that short conversation taught me a valuable lesson—not just about cutting hay, but about life and about business.

So, when the RFA staff was batting around ideas for the theme of this year's conference and "Focus Forward" was suggested, I immediately thought of this story and its moral—and its relevance for us in the ethanol industry.

To be sure, 2019 was a difficult year for the ethanol industry—one of the worst we've ever had. To get through it, we had to stay focused and keep moving toward that light at the end of the tunnel. We had to keep going.

After six straight years of growth, U.S. ethanol production fell in 2019. At 15.8 billion gallons, last year's output was down 300 million gallons from the record achieved in 2018—and even below 2017's production volume.

In fact, 2019 marked just the third time in the last three decades where output fell from the preceding year. The two previous decreases in annual output—in 1996 and 2012—were both tied to historic droughts, short crops, and record high corn prices.

And even though farmers did experience some extremely challenging weather conditions last year, we can't blame the 2019 decrease in ethanol production on drought, flooding, or any other natural disaster. No, the drop in ethanol output this time was caused by a disaster of an entirely different sort: policy uncertainty, bureaucratic meddling, and vexing marketplace barriers.

We expected that the RFS and burgeoning export markets would continue to drive the incremental demand growth that our industry had become so accustomed to over the past decade. We planned for growth. You invested in growth. But it simply didn't materialize in 2019.

Instead we saw demand *stagnation* as EPA secretly doled out dozens of new RFS compliance waivers to small refineries, and protracted trade wars wiped out export opportunities.

EPA's illegal small refinery exemptions eroded domestic ethanol demand and hampered the expansion of E15 and flex fuels like E85. After handing out 54 waivers from 2016 and 2017 RFS requirements, EPA turned a deaf ear to the outcry from farm country and, in August, granted 31 more waivers from the 2018 standards. In total, the Trump Administration has granted 85 exemptions and erased just over 4 billion gallons of RFS blending obligations.

Meanwhile, protectionist trade barriers continued to shut ethanol exports out of the Chinese market and reduce shipments to Brazil.

China was a top-three export market in 2016—importing 200 million gallons—and it was a top ten market in both 2017 and 2018. But in 2019, exports to China evaporated, as escalation of the trade war and a 70% tariff slammed the door completely shut.

At the same time, Brazil’s tariff rate quota on U.S. ethanol imports—which was supposed to expire in August but was instead renewed—led to a 32% drop in shipments to that market in 2019.

Overall, U.S. ethanol exports fell by 220 million gallons—or 13%—from the record level achieved in 2018.

And while our exports sagged, imports jumped to a six-year high in 2019. To be clear, Brazilian sugarcane ethanol remained economically uncompetitive with U.S. corn ethanol. But, the combination of record-high LCFS credit prices, dubiously low carbon intensity scores, and the SRE-induced widening of the D5-D6 RIN spread caused more than 200 million gallons of Brazilian ethanol to flow into California ports.

The result of this policy, regulatory, and marketplace turmoil was a lingering supply-demand imbalance, record stocks levels, and extremely challenging economics.

Not surprisingly, the industry had no choice but to significantly throttle back production. At one point, as many as 20 ethanol plants were shut down or idled. And in the fall, weekly output rates fell to a four-year low.

So, as we look behind us out that rear window, it seems we had lots of crooked windrows in 2019. It was a challenging year.

But we kept our focus forward. We continued to look ahead. We made adjustments and course corrections. We kept working to straighten things out.

Even with the downturn in production, the ethanol industry continued to serve as a vital source of good-paying jobs and economic activity in hard-hit rural communities in 2019.

Overall, the industry supported nearly 69,000 jobs directly, and another 280,000 indirect or induced jobs across the economy. We contributed \$43 billion to U.S. GDP, raised household incomes by more than \$23 billion, and generated \$8 billion in federal, state, and local tax revenues.

Ethanol also continued to enhance our energy security, replacing the amount of gasoline refined from 559 million barrels of imported crude oil and keeping more than \$30 billion in the U.S. economy.

And let’s not forget that 2019 also saw the industry finally achieve a long-standing regulatory objective: RVP parity for E15 and the ability for retailers to sell E15 all year

long. This victory was made possible because we stayed focused and seized on the opportunity to finally get year-round E15 across the finish line.

Already the marketplace is responding. A new RFA analysis shows that E15 sales set a record of 500 million gallons in 2019. E15 sales during the summer were more than double the volume sold during the summer of 2018.

To celebrate the removal of the summertime prohibition on E15, President Trump himself visited RFA member company Southwest Iowa Renewable Energy in June in Council Bluffs. It was only the fourth time in history a sitting president had visited an ethanol plant. Not only did the President learn more about E15 and the ethanol industry that day, but he also heard directly from farmers and plant workers about the devastating impacts of EPA's small refinery exemptions.

In a pivotal moment, Iowa farmers Kevin Ross and Darrel McAlexander, told President Trump that EPA's small refinery waivers could undermine the E15 victory. I have no doubt that their comments were on the President's mind when, in September, he directed EPA to fix this SRE mess. Kevin, who is also the current president of NCGA, is in our audience today. When I called Kevin last May to see if he wanted to be among the group that met with President Trump at SIRE, he didn't hesitate. He said "of course." So, when you see Kevin in the hallway or at the reception tonight, shake his hand and tell him "thanks."

And after a frenetic burst of activity in the last few weeks of 2019, it became clear we were definitely heading in the right direction as the year came to a close.

All the following things happened within the course of just seven days in mid-December:

- President Trump announced that a long-awaited trade deal with China had finally been reached. And officials confirmed that Phase One of the deal would include purchase agreements for U.S. ethanol and distillers grains.
- EPA published its final rule for 2020 RFS blending obligations. And while EPA's rule didn't adopt the SRE reallocation method we preferred, it marked an improvement over the original proposal -- and it gives us an outside chance of finally achieving the full 15 billion gallon requirement established by law in 2020.
- EPA also withdrew its proposed rule that would have "reset" the 2021 and 2022 RFS volumes. That's a good thing because EPA was again relying on outdated information and data about ethanol to inform the "reset" volumes.
- EPA also said it would revisit a court order to restore 500 million gallons of illegally waived RFS requirements from 2016, after initially ignoring the court's directive.

- The Administration also committed to greater investment in biofuels infrastructure and streamlining the remaining regulatory barriers that keep E15 from expanding more rapidly.
- The House finally passed the US Mexico Canada Agreement.
- And lastly, Congress passed—and the President signed—a spending bill that extended key biofuels tax provisions.

I'd say that was a pretty good week for our industry, wouldn't you?

And although all of those events occurred in just seven days, they were months—or years—in the making, and wouldn't have happened without our industry maintaining its focus and tenacity.

We've picked up even more momentum in the new year. In just the first month of 2020, we saw final ratification of USMCA, more details on the China Phase One agreement, and visible progress on USDA's biofuels infrastructure program.

But the best news of the new year—by far—came late in the afternoon on Friday, January 24. That's the day when the U.S. Court of Appeals for the 10<sup>th</sup> Circuit published a bombshell 99-page decision finding that EPA vastly exceeded its statutory authority in granting three specific small refinery exemptions.

The decision stems from a lawsuit filed by RFA, NCGA, ACE, and the National Farmers Union in May 2018—just shortly after we became aware that former EPA Administrator Scott Pruitt had been secretly issuing exemptions to dozens of oil refineries.

Our suit challenged EPA's issuance of 2016 SREs to three specific refineries: CVR's facility in Winnee-wood, OK, and HollyFrontier's facilities in Cheyenne, WY, and Woods Cross, UT.

In a nutshell, the Court affirmed what we've been saying now for two years:

1. That EPA exceeded its authority by granting new small refinery waivers that were not extensions of existing exemptions;
2. That EPA abused its discretion by failing to consider that refiners pass RFS compliance costs onto their customers; and
3. That EPA exceeded its authority by granting SREs based on hardships *not* caused by RFS compliance.

The Court vacated the three exemptions and remanded them back to EPA for further action. We expect the decision will ultimately apply broadly to EPA's actions regarding small refinery exemption petitions.

You'll hear more about the court decision and what it means for the ethanol industry from our next speaker, Matt Morrison, who was the lead attorney for our coalition in this landmark litigation. But the bottom line is this: the decision should fundamentally alter the way EPA manages the SRE program and finally restore the ability of the RFS to drive demand and expand markets for renewable fuels, just as Congress intended.

So, while there were plenty of dark clouds hanging over the industry in 2019, whenever those clouds parted and the light came through we took full advantage of the opportunity. We made hay while the sun was shining.

But focusing forward means more than just looking a few inches in front of your face. Indeed, it's been said that short-sightedness is no better than blindness.

And as Helen Keller put it, "The only thing worse than being blind is having sight but no vision."

We've got to have vision. We've got to remain focused on the horizon and take the long view. Not only are we starting a new year, we're starting a new decade. Where do we want to be as an industry five years from now? Ten years from now? How will we get there? What is our vision for the future?

These are questions that were recently posed to, and discussed by, RFA's board of directors during a strategic planning process. We emerged from those discussions with distinct strategic objectives and a clear-eyed vision for the future.

And as we discussed the best way to position ethanol in a rapidly changing world and a dynamic marketplace, we kept coming back to three intrinsic values that ethanol offers more affordably than any other fuel on the planet: Clean Octane, Carbon Reduction, and Consumer Choice, which is really another way of saying Competition.

Not long after I started working at the National Corn Growers Association in 2003, I was asked to give a presentation on ethanol to a group of agribusiness leaders in the St. Louis area. As I was planning for the presentation, I confessed to my boss that I really didn't know much about ethanol at the time, and she said, "Don't worry, just remember the 'Three Es' when you talk about ethanol's advantages: energy security, economic development, and environmental benefits. Stick to the Three Es and you'll be just fine."

Indeed, the Three Es have successfully typified ethanol's benefits over the past several decades; they have served us well--and will continue to do so--as we share ethanol's good story with the public and policymakers.

But as we focus more acutely on positioning ethanol in discussions about energy and climate change, we need to play to ethanol's unique strengths and emphasize the *Three Cs*: Clean Octane, Carbon Reduction and Consumer Choice.

I want to spend a little more time looking at each of these.

First, it is already well understood that ethanol has tremendous value as an octane booster. Of all the options available to refiners, ethanol unquestionably has the highest blending octane number and is available at the lowest cost. You are going to hear all about that later today from Argus.

Ethanol has been used for decades to boost octane. But moving forward, much higher octane will be needed to enable greater fuel economy and significantly reduce emissions.

Numerous studies have shown that the use of high-octane fuels--in the range of 98-100 RON--in high compression engines can greatly improve fuel efficiency and reduce both criteria pollutants and greenhouse gas emissions.

This is why automakers view the use of high-octane fuels in optimized engines as a low-cost pathway for compliance with future fuel economy and emissions standards. Not that long ago, GM executive Dan Nicholson, who joined us on this stage last year, said, "Higher octane is necessary for better engine efficiency. It is a proven low-cost enabler to lower CO<sub>2</sub> emissions; 100 RON fuel is the right fuel for the 2020-2025 timeframe." We agree. We need more octane. And we need to get there quickly.

But here's the thing: not all octane boosters are created equal. Refiners really have just two choices: they can choose ethanol—a clean, renewable octane source—OR they can choose aromatics and other hydrocarbon octane boosters, many of which endanger human health and worsen air pollution. Our friends at the Urban Air Initiative have done excellent work to shine a public spotlight on the dangers of aromatics.

But in the scientific community, the health impacts of aromatics are already well known. Researchers have tied the microscopic particles and other toxics in exhaust to autism, cancer, asthma, heart disease, and lung disease. Aromatics like benzene are the major precursor to many of these lethal pollutants.

So, yes, we need higher octane. But we simply cannot trade higher octane and greater engine efficiency for worse air quality and increased risk to human health and the environment.

The choice is simple...in fact, the choice is unmistakable: ethanol is the only reasonable and responsible option for raising octane in the future.

Second, ethanol is a low-cost and readily available tool for reducing carbon emissions from the transportation sector.

As we enter a new decade, state and federal action on carbon reduction appears inevitable and imminent. Transportation has emerged as the single largest source of GHG emissions and thus lawmakers are especially interested in policy solutions that can reduce the carbon intensity of our fuels and vehicles.

Halfway through the 116<sup>th</sup> Congress we've already seen more than 40 legislative proposals and resolutions introduced to tackle climate change, ranging from the provocative "Green New Deal" to carbon capture and sequestration measures. While few, if any, of these proposals are expected to go anywhere immediately, their sponsors are sending a clear message: legislative action aimed at curbing carbon emissions and combating climate change is coming.

And it isn't just in the halls of Congress that climate change is dominating policy discussions—it's on the presidential campaign trail as well. Every Democratic candidate running for president says reducing carbon emissions is a top priority. Indeed, thanks to the work of Biofuels Vision 20/20, an organization that worked to determine every candidate's position on renewable fuels, each of the top six candidates coming out of Iowa are on record as supporting ethanol as a way to fight climate change. Frankly, Biofuels Vision 20/20 might be the only thing about the Iowa Caucuses that actually worked this year!

The escalating political discourse around climate change is merely a reflection of the fact that people are talking about the issue more than ever before.

So, where does that leave us? How does ethanol fit into the discussion? Some misinformed critics argue that agriculture and ethanol are "part of the climate problem" rather than part of the climate solution. We can't let others define our future. Whether we are "at the table or on the menu" for the emerging climate debate is entirely up to us. RFA believes we should not just have a seat at the table—we should be leading the conversation.

With ethanol, we don't have to wait and hope for major technological or economic breakthroughs; the fuel is available *now* at a low cost to drive decarbonization.

The DOE, California Air Resources Board, USDA, and others already recognize that grain-based ethanol reduces GHG emissions by 35-50 percent compared to gasoline today. Emerging technologies promise to boost that reduction to around 70 percent in the next few years, according to USDA.

While ethanol's carbon footprint is shrinking, gasoline's carbon footprint is growing larger. Even with an exaggerated penalty for hypothetical land use change emissions, the latest data from California shows that ethanol used in that state is reducing GHG emissions by more than 40% compared to gasoline.

Further, the data show that ethanol is responsible for 40% of the total GHG reductions achieved under the LCFS since 2011—more than any other low carbon fuel.

And ultimately, when lifecycle models properly account for corn’s ability to sequester carbon in the soil, and if CO<sub>2</sub> from fermentation can be economically captured and sequestered, we could indeed see carbon neutral corn ethanol.

RFA is already engaged in many initiatives and discussions to ensure ethanol’s carbon benefits are properly represented and understood.

In addition to continuing our work to solidify and expand ethanol’s role under existing LCFS programs in California and Oregon, we are working with stakeholders in New York, Colorado, Washington, and other states where similar programs are being investigated or developed.

And we have collaborated with a diverse group of stakeholders on a potential Clean Fuel Standard for the Midwest. You’ll learn more about that effort from a panel of experts later today, along with other perspectives on how ethanol can help decarbonize our transportation sector.

Third, ethanol enables greater competition and consumer choice. It has always been well understood that competition reduces costs for consumers, spurs innovation, and stimulates the invention of new products and more efficient processes. In fact, the competition driven by the RFS is responsible for reducing gas prices by at least 22 cents per gallon in recent years, according to a recent study by economist Phil Verleger.

But here’s the problem: not everyone likes competition. Not everyone likes the idea of contending for market share on a level playing field. Whether it is protectionist trade barriers, century-old subsidies, branding agreements that prohibit competition, or the erection of regulatory obstacles, incumbent industries will stop at nothing to protect their markets and stifle disruptive technologies and innovation.

That’s why the notion of a “free market” is a myth. And that’s why the RFS is so important—and will remain important in the new decade. The RFS is not a mandate; no, the RFS is a tool that provides renewable fuels access to a market that is otherwise closed to competition.

Let’s be honest: if we had a truly free market, wouldn’t consumers choose the lower-cost, lower-carbon, higher-octane, bio-degradable, American-made option every single time? Of course they would.

That’s why we must continue to fight for policies that provide market access and tear down artificial barriers to expanded ethanol use around the globe. Andrew Carnegie said it best: “while the law of competition may be sometimes hard for the individual, it

is best for the race...” When there is competition, consumers win. Period. Let us compete!

So, how do we take the *Three Cs* and translate them into actionable policy that truly expands the market for ethanol, reduces emissions, enables greater fuel efficiency, enhances competition and choice, and lowers prices at the pump?

We do it with a Low Carbon Octane Standard.

As we write the next chapter of renewable fuels policy, RFA and its allies believe ethanol has a tremendous opportunity to serve as the key ingredient of a future high octane, low carbon fuel that delivers significant benefits to American consumers.

Now, I’m sure many of you are asking: what does a Low Carbon Octane Standard look like? How would it work?

The two key features of the program are:

- Establishment of a minimum octane standard for gasoline, *preferably* at the 98 RON level; and
- A requirement that the octane boost comes from sources or processes that *reduce* lifecycle GHG emissions compared to a hydrocarbon baseline.

The program also would include provisions to remove or repair problematic regulatory barriers, including:

- Ensuring parity in the regulation of volatility for all ethanol blends;
- Improving EPA’s fuel certification process; and
- Substantially revising and updating EPA emissions modeling tools.

In addition, the policy would stimulate competition and flexibility by compelling the transition of retail infrastructure to accommodate higher ethanol blends like E25 or E30. Finally, the program would restore the incentive for automakers to build more flex fuel vehicles and engines optimized for higher blends of ethanol.

If these provisions look familiar, it is because all of them were included in the “game plan” I laid out at last year’s NEC. And while we are still in the early innings, I am pleased to report that we are executing on that game plan and putting some runners on base.

We are actively engaged in discussions with lawmakers, legislative counsel, and regulators around a Low Carbon Octane Standard. We are doing the legal work and the economic analysis. And we are working to broaden the coalition of supporters for high

octane low carbon fuels. You will hear a lot more about our efforts on a Low Carbon Octane Standard as the year progresses.

Clean Octane. Carbon Reduction. Consumer Choice. Those are the keys to ethanol's future. But achieving that vision and realizing ethanol's full potential will take teamwork, resolve, flexibility, ingenuity, and lots of focus.

So, as the new decade begins, let's keep our Focus Forward, let's keep our eye on the horizon and let's make some hay!

Thank You!