

2019 State of the Industry Address

Good Morning! Welcome to the 2019 National Ethanol Conference. Thank you for being here. As you just heard from Neil, I'm the new President and CEO of the Renewable Fuels Association. I was honored and humbled to assume that role in October and I am extremely grateful to the RFA board of directors for giving me that opportunity. And while I am new to this position, I'm not new to the RFA or the ethanol industry. In fact, I've known many of you for years.

But for those of you who don't me, I thought I'd tell you a little more about my background and how I got here.

I grew up in central Wyoming, where my family raised sheep, cattle, alfalfa hay, oats, and yes, even a little corn. I knew at a fairly young age that I wanted work in agriculture when I grew up. Later, I moved to Iowa to attend college at Drake University on an Army ROTC scholarship. I was commissioned as a second lieutenant the day after I graduated and immediately headed for Fort Knox, Kentucky, and later Fort Lee, Virginia. In the Army, I specialized in petroleum product logistics, and it was during a visit to Egypt in the fall of 2001 that I gained a new appreciation for the vital importance of reducing our dependence on foreign oil and enhancing our national energy security.

In late 2003, I found my way back to agriculture, taking a job at the National Corn Growers Association in St. Louis. This was right at the beginning of the modern ethanol boom; the industry at that time consisted of about 60 plants with about 2.7 billion gallons of capacity. But states were beginning to ban MTBE, oil imports were surging, and discussions about a national renewable fuel standard were gaining momentum. And farmers across the Corn Belt saw a tremendous opportunity on the horizon. They gathered together and pooled their resources and talents—not only to invest in the construction of new ethanol plants in their communities, but also to provide the grassroots muscle needed to push the first Renewable Fuel Standard across the finish line in the summer of 2005.

A few months later I met a guy named Bob Dinneen at the 2006 National Ethanol Conference in Las Vegas. Maybe you've heard of him. I'll never forget the sold-out crowd coming to its feet and cheering as Bob touted the RFS victory and declared, "My friends, ethanol has arrived!" I knew then that I wanted to be part of ethanol's arrival. I wanted to work with this guy and the RFA.

And indeed, I got that chance. I worked closely with the RFA over the next few years as we advocated for expanding and extending the RFS. Together, we battled adversaries on everything from the food vs. fuel myth to the energy balance canard to the indirect land use change fable. And we persevered, celebrating the successful passage of the RFS2 in December 2007. Just two months later in February of 2008, at this very conference and at this very same hotel—in fact it was on a bench out by the lake—Bob asked me to come to work at the RFA as the

Director of Research and Analysis. I eagerly accepted, and I've been proud to be part of the RFA team—working on your behalf—for the past 11 years.

So, that's a little bit about me and my professional path. But there's probably one other important thing you need to know about me: I'm a baseball junkie. I'm fanatical about baseball. When I'm not thinking about ethanol, I'm probably thinking about baseball--watching my kids play the game, reading baseball books, or taking in a Cardinals game at Busch Stadium. So, I suppose it's only appropriate that today, about two hours east of here, Cardinal pitchers and catchers are reporting for their first day of spring training.

And when I'm looking for inspiration or wisdom, I turn to America's pastime. There are so many parallels between the game of baseball and the game of life and the situations we encounter every day in our business. I often find that baseball helps me put things in perspective and provides endless metaphors to help explain the triumphs and travails we experience in the ethanol world.

In baseball, there are games where it seems like your team is doing everything right. Your hitting the ball, getting on base, and making plays. But you just can't pull ahead. You just can't seem to catch that break. In baseball lingo, you're "snakebit." That's how 2018 felt for the ethanol industry, isn't it?

You did everything you could in 2018. You left it all on the field. And you put up incredible numbers—record numbers, in fact.

The U.S. ethanol industry produced a record 16.1 billion gallons of high-octane, clean-burning renewable fuel in 2018, up about 200 million gallons from 2017 and the sixth straight annual increase in production. Meanwhile, you churned out 41.3 million metric tons of co-product animal feed, and a record 4 billion pounds of distillers oil. While other industries have struggled to simply maintain output levels in recent years, incremental growth continued in the ethanol industry. U.S. producers have quietly added nearly three billion gallons in production capacity over the past five years, positioning the industry well to serve future global demands for our two most valuable players—octane and protein.

As a result, the ethanol industry continued to play a vital role in our economy, supporting more than 71,000 direct jobs in manufacturing and agriculture, and nearly 295,000 indirect and induced jobs across all the sectors of the economy. The industry generated \$25 billion in household income and contributed \$46 billion in gross domestic product.

While 2018 saw the completion of several expansion projects and the opening of a few new ethanol biorefineries, much of our growth in recent years has come through increases in efficiency.

You continue to squeeze more ethanol out of every bushel of grain, doing it with less energy and water. And now ethanol biorefineries across the country are adopting technologies to

convert the fiber fraction of the corn kernel into high-value cellulosic biofuel, adding another revenue stream and pushing ethanol yields over three gallons per bushel. That's incredible!

Our industry made significant strides in 2018 to expand the market for E15 and flex fuels like E85. Thanks to the persistent and vocal advocacy efforts of our industry, our partners in agriculture, and our champions in Congress and the Administration, we got a firm commitment from President Trump in October to eliminate what he called an "unnecessary and ridiculous" regulatory barrier to year-round E15 sales before this summer driving season begins.

While resolving the RVP barrier will not unleash an immediate tidal wave of new ethanol demand, it will absolutely send a crucially important signal to gasoline retailers and marketers, providing them with the investment certainty they need bring E15 to the pump. The number of stations selling E15 grew more than 30 percent in 2018—even *with* the RVP barrier in place. And within weeks of President Trump's announcement, two major retail chains—Casey's and Cumberland Farms—announced plans to offer E15 at hundreds more retail locations. Other major retailers will undoubtedly follow once the EPA finalizes the regulations removing this red-tape obstruction. Flex fuels like E85 made progress as well, and by year's end a record 4,500 stations in 46 states were selling cleaner, lower-cost flex fuels to millions of FFV owners.

One of the greatest successes for our industry in 2018 was growth in the export market, driven in large part by the sustained international market development efforts of RFA and its partners. Ethanol exports surged to a record of more than 1.6 billion gallons, meaning one out of every 10 gallons we produced went into the international market—providing savings at the pump and cleaner air for drivers around the globe. This accomplishment is even more impressive when you consider that U.S. ethanol faced punitive trade barriers in several key markets.

The ethanol industry continued to deliver huge wins for consumers last year. Your efforts helped empower American families and improve their lives, providing them with cleaner air, a more secure domestic energy supply, and lower gas prices.

The use of U.S.-produced ethanol in 2018 reduced greenhouse gas emissions by 55 million metric tons—that's like taking almost 12 million cars off the road for an entire year, or eliminating the annual emissions from 13 coal-fired power plants. You'll hear more about the role of renewable fuels in reducing GHG emissions during an excellent panel discussion this afternoon, featuring Richard Corey, the executive officer of the California Air Resources Board, and several other experts.

And ethanol continued to displace billions of gallons of toxic aromatic hydrocarbons like benzene from our gasoline, reducing the emissions that contribute to asthma, lung disease, cancer, and heart disease. According to a recent EPA report, aromatics and olefins comprised 37 percent of our gasoline in 2000, while ethanol accounted for just 1 percent. In 2016, however, aromatics and olefins made up 28 percent of our gasoline and ethanol comprised 10 percent.

Meanwhile, the ethanol industry continued to play an important role in America's energy renaissance, displacing the need for an amount of gasoline refined from 594 million barrels of crude oil and helping reduce our net dependence on imported petroleum to just 14%--the lowest rate in nearly 60 years.

Finally, as the lowest-cost octane booster on the planet, ethanol continues to save consumers money at the pump. A recent study published in the American Journal of Agricultural Economics found that ethanol consumption under the RFS saves the U.S. economy almost \$18 billion per year in gasoline expenses. Time and time again, consumer polling reveals that affordability is by far the most important consideration for American consumers when they pull up to the pump. That was confirmed by recent consumer focus groups conducted for RFA, which you'll learn more about this afternoon.

Yes, the ethanol industry had some big home runs in 2018.

But we just couldn't seem to score that go-ahead run. We were always playing catch-up and it felt like we couldn't gain any ground in the standings. Why? Because the other team on the field has the payroll of the New York Yankees and seemingly limitless resources. They play to win at any cost. They play dirty. They steal signs, throw spitballs, and use too much pine tar. They might even be using those PEDs.

Take for example the small refiner exemptions that plagued our markets in 2018. While we were focused on fighting efforts by Texas Senator Ted Cruz and others to cap RIN prices, allow exported renewable fuels to count toward the RFS, water down the RFS with RIN multipliers, and any number of other really bad ideas, former EPA Administrator Scott Pruitt was busy cutting the legs out from underneath our industry. As we all know now, he was secretly letting dozens of so-called "small refineries" out of their legal obligations to blend renewable fuels under the RFS.

Pruitt's abuse of the small refiner waiver provision was unprecedented. The waiver program was created by Congress to allow small refining companies to seek an exemption *IF* they could prove that their RFS compliance obligation was somehow causing them "disproportionate economic hardship." Appropriately, EPA has always applied a very rigid standard when considering exemption requests, and the Agency itself has acknowledged that RIN costs are passed downstream to the blender and there is no evidence that RINs somehow cause disproportionate economic harm.

Under the previous administration, for example, just seven small refineries were exempted from RFS compliance obligations in 2015, while seven petitions—or half of those received--were denied or declared ineligible. Contrast that to Pruitt's approval of 19 exemptions from the 2016 RFS standards and 29 exemptions from 2017 RFS obligations. And not a single petition reviewed by EPA during Pruitt's tenure was denied. Mr. Pruitt unilaterally weakened the criteria for granting exemptions and threw EPA's high standard out the window. He clung to the argument that his hands were tied by the 2017 *Sinclair versus EPA* court decision, and also that

he had to follow Department of Energy recommendations on waiver petitions. Knowing what we know now, neither of those excuses pass the straight-face test. In the end, more than 21 billion gallons of gasoline and diesel sold in 2016 and 2017 escaped a renewable fuel blending obligation.

Adding insult to injury was the revelation that these supposed “hardship” waivers weren’t just being issued to small, independent merchant refineries. As reported by Reuters, they were also being handed out to oil behemoths like Chevron and ExxonMobil. ExxonMobil was the 17th most profitable company in the world in 2017 with net income of \$19.7 billion—if that’s “economic hardship,” sign me up!

The effect of these refinery bailouts was devastating to the domestic ethanol market. Billions of RINs that refiners previously thought would be needed for RFS compliance were no longer needed, resulting in a flood of surplus RINs back onto the market, a collapse in RIN prices, and demand destruction in the physical markets.

The deluge of RINs back onto the market meant obligated parties could comply with RFS blending requirements by purchasing and turning in cheap RINs rather than taking steps to expand ethanol blending. When ethanol RIN prices fell to just 8 cents each in November, a refiner could buy 15 RINs—each representing a gallon of ethanol—for the same price as one actual, physical gallon of ethanol. Think about that.

So, naturally, ethanol prices were forced to compensate as much as possible for the collapse in RIN prices. To maintain attractive blending economics in the absence of meaningful RIN values, ethanol prices plummeted. Ethanol futures fell to their lowest price in the 14-year history of the contract, while rack prices collapsed to their lowest levels since 1999.

And even as ethanol fought to maintain its place in America’s gas tank, domestic blending activity softened. A year ago, the U.S. Energy Information Administration forecasted that 2018 domestic ethanol blending would top 14.7 billion gallons and that ethanol would comprise 10.3 percent of total gasoline consumption.

And, indeed, 2018 got off to an excellent start, with an all-time record blend rate of 10.7 percent in January. But as news of the small refiner exemptions trickled through the market last spring, RIN prices cratered and the pressure to expand blending was off. The ethanol blend rate fell to a five-year low in April and struggled to find any uplift through the remainder of the year. Actual 2018 domestic ethanol consumption is estimated at 14.3 billion gallons, some 400 million gallons less than EIA initially projected. That’s the first annual decrease in domestic ethanol consumption since the drought-ravaged year of 2012.

The RFS is all about moving the renewable fuels industry forward and growing the market. Unfortunately, that isn’t what happened in 2018. And I’ll be blunt: anyone arguing that small refiner waivers didn’t cause demand destruction needs to have their head examined!

We didn't take this lying down, however, and RFA and its partners continue to fight the small refiner exemptions in court, demanding that the lost volumes be reallocated. Tomorrow, you'll hear an update on that from Matt Morrison, one of the attorneys leading this fight on our behalf.

And despite tallying record exports last year, our industry was bedeviled by a wave of protectionism that spread across the global market. An exorbitant tariff on U.S. ethanol continued to hamper exports to the European Union. A new countervailing duty in Peru began to reverse progress in that emerging market. And even though Brazil remained our top export customer, the country's tariff rate quota on U.S. ethanol crimped our exports to that market.

But it was the loss of the Chinese market that hurt the most.

In 2016, China was our third-leading export market, receiving 200 million gallons of U.S. product. But the imposition of 30 and 35 percent tariffs in January 2017 effectively shut down exports to China for most of the year. However, due to the incredible cost competitiveness of U.S. ethanol, large shipments to China resumed in late 2017 and early 2018. Even with the tariff, it looked for a moment like China may return as a top-three export market. But those hopes were dashed in April when China raised its tariff on U.S. ethanol to 70 percent in retaliation to new U.S. tariffs on Chinese goods. The higher tariff immediately closed down the Chinese market, and it remains shut off today.

In addition, the ethanol industry remained hamstrung by a number of inscrutable regulatory barriers in 2018. Whether it was the summertime ban on E15, the fatally flawed MOVES model, woefully outdated lifecycle analyses, or obscure technical issues like the R-factor used in CAFE calculations, Team Ethanol continued to play on an unlevel playing field. All we want is a chance to compete fairly, and we continue to explore every possible avenue for clearing away the thicket of red tape that keeps tripping us up.

When you add it all up, 2018 was a tough year. And when you're doing everything right, but can't catch that break, it's easy to become frustrated.

But let's get back to baseball for a minute. Because here's the thing: with one bad pitch, one lazy throw, or one sloppy play by the opponent, we are right back in this thing. The game can change quickly—if we are ready.

I can't help but think about Game 6 of the 2011 World Series between the Cardinals and Texas Rangers. It was the bottom of the ninth inning with the Cardinals trailing by two runs. There were two outs and two on and the Cardinals, down three games to two, were one strike away from losing the series. St. Louis hometown boy David Freese was the batter and on a 1-2 count, he hammered a two-run triple to tie the game and send it to extra innings.

When Freese came up again in the bottom of the 11th inning, he worked the pitcher to a full count then crushed a walk-off home run to dead center field. His Game 6 heroics recharged and

renewed the entire lineup. And the Cardinals made short work of the Rangers in Game 7 to claim their 11th World Series title.

You see, Freese was prepared; he was ready to capitalize on any opportunity that presented itself, he was locked in on his target. He wasn't sitting back looking for a walk. He was looking to attack the ball. He was playing to win. And today, nobody remembers that just a few innings before his walk-off homer, Freese made an uncharacteristic error on a routine pop fly—one that looked like it might cost the Cardinals the game...and the series. "This is why you keep battling," Freese said after the game.

This is why you keep battling.

It was another great hitter—perhaps the best hitter of the 1980s—Tony Gwynn, who said "Life will always throw you curveballs. Just keep fouling them off. The right pitch will come, and when it does, be prepared to run the bases."

We fouled off a lot of curveballs last year. But as we look ahead to 2019 and beyond, I have no doubt that the right pitch is coming. And when it does, we'll be ready for it. We've been waiting—and preparing—for that moment.

When EPA finally puts out its proposed rule to allow year-round sales of E15, we'll be ready. RFA will throw everything we've got into ensuring a defensible rule is finalized as quickly as possible, expanding the domestic ethanol market, enabling competition, and eliminating—once and for all—a needless bureaucratic barrier that offers no economic or environmental benefit whatsoever.

When EPA releases its proposal to reset the 2020 through 2022 RFS volumes, we'll be primed to make the case that the reset should be used to *increase* the required volumes of all renewable fuels over current levels. In fact, as we wrote to EPA Administrator Andrew Wheeler just two weeks ago, the reset rule presents a perfect opportunity for the Agency to restore the conventional renewable volumes that were inappropriately erased by Scott Pruitt's small refinery waivers and the Obama administration's illegal use of a "general waiver" to reduce the 2016 standards.

We'll keep the heat on the Administration to resolve lingering trade disputes, and when China finally reopens its doors to U.S. ethanol imports, we'll be prepared to deliver. We stand ready to help that nation meet its goal of reaching a 10 percent ethanol blend nationwide, offering cleaner air and lower gas prices to Chinese consumers.

We'll keep working to strike out the regulatory barriers that put ethanol at an unfair disadvantage in the marketplace. We'll fight the outdated and obscure technical hurdles that prevent the expanded use of ethanol, and we'll strive to ensure all fuel types and vehicle technologies—including electric vehicles—have to play by the same rules.

And when an opportunity presents itself to double down on our “Don’t Mess with the RFS” message, we’ll be ready to strike. While opponents will continue to falsely claim that the RFS ends or sunsets after 2022, we’ll be reminding policymakers that the RFS *does not end*. And we’ll be looking for opportunities to provide more clarity to post-2022 RFS volumes.

The RFA’s vision for the future includes not only strengthening the RFS, but also pursuing a high-octane fuel standard. The RFS and a high-octane, low carbon fuel program are *not* mutually exclusive. Rather, they can work in concert, not in conflict, to assure air quality improvements, carbon emissions reduction, and consumer savings for decades to come. But to make this vision a reality, we’ve got a lot of work to do.

Specifically, the plan we’ll be pursuing for a post-2022 fuel program includes:

- Ensuring that all new light-duty vehicles are designed to require 98 to 100 RON high-octane fuel by a date certain;
- Requiring that those vehicles are designed and warranted for up to 30 percent ethanol;
- Establishing limits on the aromatics content of gasoline;
- Removing the Tax and Trade Bureau’s denaturant requirement, which currently results in the contamination of our clean fuel with dirtier hydrocarbons;
- Compelling EPA to approve a fuel waiver for blends up to 30 percent ethanol for use in new vehicles, or define those fuels as “substantially similar” to certification fuel;
- Extending the 1 psi RVP tolerance to all approved gasoline-ethanol blends containing more than 9 percent ethanol;
- Revising the R-factor used in CAFE compliance calculations to better represent modern fuels and engines;
- Suspending the use of EPA’s MOVES model and replacing it with a new predictive emissions model based on appropriate test fuels;
- Requiring that EPA adopt the latest Argonne National Laboratory GREET model as the basis for analyzing the lifecycle GHG impacts of fuels regulated under any EPA programs;
- Restoring equitable CAFE credit generation mechanisms for all alternative fuel vehicles, including FFVs using flex fuels and future vehicles operating on high-octane mid-level ethanol blends;
- Ensuring that all new fuel dispensers, hoses, underground storage tanks, and other equipment are designed, warranted, and UL-listed for at least 30 percent ethanol blends by a date certain; and finally,
- Building on the success of the RFS by ensuring EPA continues to require 15 billion gallons of conventional biofuels per year well beyond 2022. The RFS has worked—let’s fortify it for the future! We also need a clearer methodology for ensuring reasonable growth in annual requirements for advanced and cellulosic biofuels beyond 2022. And, of course, we should put a stop to small refinery exemptions.

Obviously, that is a long and complicated to-do list, but achieving these objectives would amount to nothing short of a grand slam—both for our industry and for American consumers.

The immortal baseball commissioner Ford Frick, said “good things happen when you keep your eye on the ball.” So, let’s keep our eye on the ball in 2019 and beyond, and when that perfect pitch comes in, let’s hammer it into the bleachers!

I look forward to working with you all this year to help the ethanol industry score that go-ahead run; and I am proud to be on your team.

Thank you.