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## Opinion – from the Renewable Fuels Association

### ‘Ethanol Truths Prove Inconvenient in New Gore Book’

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The truth about accelerating improvements in the way America produces both ethanol and the feedstocks from which it is made proved to be inconvenient for the narrative of former Vice President Al Gore in his description of grain-based ethanol in his new book. Writing in *Our Choice*, Vice President Gore expresses his “disappointment” over the progress of ethanol in the past 30 years. Yet, the facts used to support his opinion either do not reflect the industry as it exists today or are simply inaccurate.

“Given your attention to science and the facts, I am disappointed by the treatment of ethanol and other biofuels in your new book, *Our Choice*,” wrote Renewable Fuels Association (RFA) President Bob Dinneen in a letter sent yesterday to Vice President Gore ([http://www.ethanolrfa.org/objects/documents/2700/encouraging\\_truths\\_letter\\_to\\_vp\\_gore.pdf](http://www.ethanolrfa.org/objects/documents/2700/encouraging_truths_letter_to_vp_gore.pdf)). “Many of your characterizations of today’s American ethanol industry are out of date or simply wrong. With 10.5 billion gallons produced and sold this year, ethanol is a major factor in America’s motor fuel supply and is helping eliminate the need for increasing environmentally damaging sources of crude oil.”

In his letter to Vice President Gore, Dinneen outlines many “encouraging truths” of 21st century ethanol and grain production that counter many of the claims made in *Our Choice*. While acknowledging the important role Vice President Gore has played in advancing the debate on climate change, Dinneen urges a more complete and up to date review of biofuels to present readers with a clearer and more accurate view of the energy choices they will be forced to make.

“Based on an objective review of the industry as it exists today, I sincerely hope that we can both agree that corn-based ethanol is not a mistake,” wrote Dinneen. “Rather, it is providing a strong economic and environmentally sustainable foundation upon which the next generation of biofuels, including improvements in existing technologies, will be built. Therefore, utilizing what is available today, the US should expand the demand, distribution and transportation of ethanol so that we can build a strong foundation for the next generation of biofuels.”

“We are in agreement that our nation can and must pursue public policies which do not make the theoretical be the enemy of the actual, the perfect be the enemy of the good or the present be the enemy of the future. I would be honored to discuss these issues further with you and your colleagues. “

Among the statements included in *Our Choice* with which the RFA has objections include:

**Gore writes:** "...further diversion of cropland from food to fuel will put upward pressure on food prices at a time when many impoverished regions of the world are facing growing concerns about food security."

**The Encouraging Truth:** The increased use of grain for ethanol in the United States has not reduced the amount of grain available for livestock feed, food processing, or exports. Furthermore, cropland is not being "diverted" from food and feed production. Corn exports have topped 2 billion bushels in four of the last five years, the first time in history that such volumes have occurred in a five-year span. Less than 2% of U.S. corn exports are shipped to countries classified as "low development" by the United Nations.

**Gore writes:** "largely because modern agriculture is so petroleum intensive, net greenhouse gas emissions from corn-based ethanol turn out to be almost equal to the emissions from gasoline."

**The Encouraging Truth:** A 2006 study from the University of California-Berkeley found that ethanol production required 20 percent less petroleum energy than a gallon of gasoline. A University of Nebraska-Lincoln study estimates 13-19 gallons ethanol can be produced using just one gallon of petroleum.

**The Encouraging Truth:** Most recent analyses suggest corn ethanol reduces lifecycle GHGs 40-60% compared to gasoline. For example, one recent study published in Yale University's Journal of Industrial Ecology found that the lifecycle GHG emissions associated with modern corn ethanol are "...equivalent to a 48% to 59% reduction compared to gasoline, a twofold to threefold greater reduction than reported in previous studies."

**Gore writes:** "...on average national basis, each gallon of corn ethanol requires four gallons of water at the refinery (compared with one and a half gallons of water for the refining of each gallon gasoline) and 142 gallons on average for the growing of corn."

**The Encouraging Truth:** The National Renewable Energy Laboratory, 96% of the corn used for ethanol is purely rain-fed and is not irrigated (Aden, 2007). Further, a report by Argonne National Laboratory based on a survey of the ethanol industry found that average water use is approximately 3 gallons per gallon of ethanol, which compares with 2.5 gallons of water per gallon of gasoline. This also compares quite favorable to the seven barrels of freshwater needed to produce one barrel of oil from tars sands, according to researchers at the University of Alberta.

Additional **Encouraging Truths** included in the letter are:

- In the central Corn Belt, where most corn for ethanol is produced, the average acre of corn is yielding at least 525 gallons of ethanol.
- Since 1978, corn yields have increased by 63 bushels per acre.
- According to a new report from the National Institute for Space Research in Brazil, deforestation rates from August 2008 through July 2009 dropped nearly 46 percent. During this same period, ethanol production rose by nearly 13 percent.
- Ethanol is being shipped today via pipelines all across Brazil and by Kinder Morgan in the state of Florida. (For RFA President Bob Dinneen's audio comments on the letter, go to: <http://www.ethanolrfa.org/objects/documents/2701/11-09-dinneen-gore.mp3>.)