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## Biofuels Producers Merit Recognition for Contributions to Climate Change Mitigation

Blog posted on October 22, 2019 by Solutions from the Land

Tomorrow marks the seventh annual Bioenergy Day, during which more than 40 organizations all over the United States and Canada – businesses, non-profits, universities, and state and local governments – are showcasing the many ways they benefit from bioenergy. The day facilitates interaction between bioenergy projects and their local communities, raising awareness of their economic and environmental benefits.

Solutions from the Land (SfL) joins those who recognize the importance of using domestic biomass for renewable energy. Because bioenergy emits far fewer greenhouse gas emissions (GHGs) than its petroleum equivalents, broader use can help mitigate climate change.

Those benefits were strongly underlined by a [USDA study](#) released earlier this year showing GHGs from corn-based ethanol are about 39 percent lower than from gasoline. The study also states that when ethanol is produced at refineries powered by natural gas, GHGs are even lower, running around 43 percent below gasoline.

USDA officials say the findings provide further evidence that biofuels from America's heartland reduce greenhouse gases even more than was previously thought, underscoring the growth in efficiency and effectiveness of farmers and ethanol plants.

In 2010, the EPA released a life-cycle analysis of the GHGs associated with the production and combustion of corn ethanol. The agency projected that by 2022, the emissions profile of corn ethanol from a new refinery would be 21 percent lower than that of an energy-equivalent quantity of gasoline.

Over the past decade, the 21-percent value has dominated policy discussions and federal regulations related to corn ethanol as a renewable fuel and a GHG mitigation option. But by 2018, new data, scientific studies, technical reports and other information allowed researchers to examine the pathway corn ethanol emissions have followed since 2010, leading to the vastly increased estimate of the biofuel's climate benefits.

Furthermore, the researchers developed two projected emissions scenarios for corn ethanol in 2022, both of which highlight opportunities to produce ethanol with emissions that are 47-to-70-percent lower than gasoline.

The study, which emanates from the office of USDA's chief economist, notes that other nations – including Colombia, Japan, Brazil, Canada and the European Union – are now developing or revising renewable energy policies. Typically, most of those standards require biofuel substitutes to reduce GHG emissions by more than 21 percent. The higher benefits attributable to U.S. corn ethanol puts it in a strong competitive position in the new and growing markets.

Much of the increased efficiency of the ethanol sector is attributed by researchers to revised estimates of the impacts of land-use change as a result of demand for ethanol. Where previous estimates anticipated farmers bringing additional land into production as a result of increased corn prices, recent analysis finds only modest increases in crop acreage.

Additional improvements at ethanol refineries, combined with on-farm conservation practices (such as reduced tillage and cover crops) that sequester carbon in the soil and reduce greenhouse gas emissions, have further increased the value of corn ethanol as a climate change solution.

The USDA report is among many research efforts confirming that ethanol as a transportation fuel delivers real environmental benefits including both a positive energy balance and reductions in greenhouse gas emissions. As the U.S. Grain Council makes clear in a [publication](#) released this week, both of those outcomes were fundamental goals of the governmental policies – including the Renewable Fuel Standard – that gave rise to the ethanol industry. Research from universities, government agencies and private institutions demonstrates that the use of ethanol has not only achieved the goals originally set for it, but also surpassed them. As the USDA study confirms, ethanol production technology continues to mature. Biofuels are on a trajectory for even greater environmental benefits and reduced use of fossil inputs within the transportation sector.

The USDA report also serves as a reminder of the need for appropriate policy measures that can optimize the climate benefits that ethanol has to offer. While expanding the opportunity for sales of E15 earlier this year has been a good step, confusion continues to reign over EPA's handling of small-refinery waivers under the Renewable Fuel Standard. The biofuel sector and farmers who grow its feedstocks remain shortchanged under a proposal EPA has deemed to be a resolution of the waiver dispute. It's an issue that must soon be resolved to optimize the contributions our nation's biofuel producers can generate to help stem the ongoing and damaging changes to our climate.

SfL and its renewable energy platform, 25x'25, celebrate those in the biofuel sector for their sustainable production of energy – including those who grow the corn to produce ethanol. They are offering what is just one among many important, holistic solutions that mitigate the effects of climate change already being seen by U.S. farmers, ranchers and forestland owners.