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On July 24, 2018, the EPA issued a final notice approving multiple pathways for renewable fuels derived from sorghum under the Renewable Fuel Standard (RFS). And while sorghum is not normally viewed as an exciting crop, the recent approval of renewable fuels derived from it has the potential to lead to positive impacts experienced by many industries.

To completely understand why the approval of sorghum oil as a qualifying pathway under the RFS is such a big deal, a brief overview of the RFS and sorghum as a crop is warranted. To begin, the RFS is a national policy that is implemented and carried out by the Environmental Protection Agency (EPA) with help from the U.S. Department of Agriculture and the U.S. Department of Energy. The RFS was created in 2005 with the enactment of the Energy Policy Act, which amended the Clean Air Act (CAA), and was expanded in 2007 by the enactment of the Energy Independence and Security Act (EISA). As a creature authorized under the CAA, the goal of the RFS is to work toward decreasing greenhouse gas emissions by requiring a certain volume of renewable fuels to replace or reduce the quantity of petroleum-based products used in transportation fuels, heating oils, and jet fuels.

There are four renewable fuel categories under the RFS: (1) biomass-based diesel; (2) cellulosic biofuel; (3) advanced biofuel; and (4) total renewable fuels. Within those four broad categories, the EPA must approve each specific pathway which is made up of a combination of 3 components: (1) feedstock, or the type of renewable biomass that is converted into a renewable fuel; (2) the production process, which encompasses the type(s) of technology used to convert the feedstock into renewable fuel; and (3) the fuel type created from the production process.

Under the RFS, obligated parties (generally refiners or importers of transportation and jet fuels) are assigned a Renewable Volume Obligation (RVO) by the EPA, and the obligated parties show compliance with their assigned RVO through deviating and trading Renewable Identification Numbers (RINs). The RVOs that are assigned to the obligated parties under the RFS are calculated and established through an EPA rulemaking based on CAA volume requirements and production projections for transportation and jet fuels for the coming year. Obligated parties must demonstrate compliance with assigned RVOs annually, and they do so by obtaining RINs, which can either be attached or unattached. A RIN is attached if it was generated when a
producer created a gallon of renewable fuel, a RIN is unattached if it can be traded by itself, not attached to a gallon of renewable fuel. [ix] Both attached and unattached RINs can be traded on the market between parties trying to reach compliance with their assigned RVOs. [ix]

Sorghum is already considered a versatile crop. To begin, sorghum is drought-tolerant, unlike many other crops, and can thus be grown on lands that are less-than-ideal for other agricultural purposes. [xii] Additionally, sorghum has a plethora of uses at present. American-grown sorghum is used as: livestock feed, as a food product that is gluten-free and has non-GMO properties, as well as used in “building materials, fencing, floral arrangements, pet food, and biofuels.” [xii] Expanding the use of sorghum into the renewable fuels industry is ideal since sorghum is considered one of the most efficient crops out there – sorghum produces the same amount of ethanol per bushel as comparable feedstocks while using about one-third less water. [xiii] Furthermore, as of 2017, sorghum was grown on approximately 5.6 million acres in 21 different states in the U.S. [xv]

Returning to the approval of sorghum oil as a qualified pathway under the RFS, the positive impacts that will be experienced by many people in the plethora of industries. First, approving another pathway that qualifies under the program, in more ways than one. Approval of sorghum oil adds diversity by adding yet another origin from which renewable fuels can be made, as well as providing more flexibility to obligated parties under the RFS in attaining compliance with their RVOs. [xvi] The approval of sorghum oil as a qualified pathway under the RFS also sets the stage for other homegrown fuels to be approved under the RFS, further adding to the diversity of the country’s mix of biofuels. [xvii] As discussed above, sorghum is also an efficient crop when it comes to yield produced compared to water consumed, and thus the approval of sorghum oil paves the way for the approval of other environmentally friendly homegrown fuels. [xviii]

The approval of sorghum oil as a pathway under the RFS also has positive implications for sorghum farmers and rural America as a whole. This decision creates new markets for agricultural commodities like sorghum. [xix] The creation of these new markets for crops enables farmers to diversify how they market their crops and ultimately adds more value to each bushel of sorghum they produce. [xx] While farmers and rural communities alike are facing uncertainty in the global market, this additional and far-reaching new use for sorghum may provide both parties some of the relief that they are so desperately seeking. [xx]

The EPA’s approval of sorghum oil as a qualified fuel pathway under the RFS represents strides being made toward the use of more environmentally friendly homegrown fuels, the use of fuels that will not risk public health, and diversifying an agricultural crop’s ability to bring some much-needed relief to rural America. With positive impacts like this, sorghum’s future as a fuel is bright.


[iii] Id.

[iv] Id.

[v] Id.


[viii] Id.

[ix] Id.

[x] Id.

[xi] Id.


[xiii] Id.

[xiv] Id.

[xv] Id.


[xvii] Id.

[xviii] Id.

[xix] Id.

[xx] Id.

[xxi] Id.

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