FOUNTAINHEAD ENGINEERING LIMITED

Corn Stover Densified Fuel Trials Cedar Rapids, Iowa (2009)

During the past four years Fountainhead Engineering Ltd (FHE) has coordinated densified biomass fuel trials using a variety of biomass feedstocks including woody, agricultural, and other herbaceous "energy crops" as well as combinations of these feedstocks combined with process residuals generated from pulp and paper mills, cane processing and corn ethanol residuals. Using the patent pending Renewable Densified Fuels, LLC (RDF) technology (patent issued in Canada) FHE has been successful in developing over 50 "Mix Designs" to create a high Btu, low ash, low moisture and extremely moisture resistant renewable densified (biomass) fuel. FHE has developed numerous Mix Designs comprised of a combination of agricultural residues (such as corn stover) various species of "woody" biomass and other herbaceous "energy" crops including logging residuals (i.e. forest slash) and clean, untreated wood wastes separated from construction & demolition debris. For this assignment testing was completed in 2008 and 2009 in order to develop various Mix Designs including a 100% corn stover densified fuel. Subsequent tasks included mix designs using stover and other biomass feedstocks or residuals including stover and Arundo, stover and cardboard residuals – secondary fiber, stover and switch grass, etc. for use in industrial coal boiler or dedicated renewable energy applications. The 100% renewable densified stover fuel produced for the Iowa fuel trials was nearly 9,600 Btu/LB, less than 3% ash and less than 2.5% moisture content.

EXHIBIT A

Feedstock Name	C %	H %	Btu Value	kJ Value	Moisture %	Ash %	C % Change	H % Change
Iowa (BWC) Corn Stover								
Corn Stover Feedstock Wet	30.29	3.01	4,799	5,063	33.53	9.89		
Corn Stover Processed (HTF)	42.88	4.43	7,285	7,686	3.91	10.61	**12.59**	**1.42**
Corn Stover Fuel 12% RCB	53.94	6.44	9,599	10,127	2.45	2.91	**11.06**	**2.01**

The data in Exhibit A documents relevant aspects of the changes that occur from the raw or incoming corn stover feedstocks (from the field) to densified corn stover fuel using the Renewable Densified Fuels, LLC production technology. The Table in Exhibit A illustrates that the energy added (i.e. elemental increases in hydrogen and usable carbon) to the incoming corn stover progressing from a moisture content of 33.53% (incoming feedstock) to a Renewable Densified Fuel product (with 12% Reconstituted Carbon Binder - RCB) with an ending moisture content of 2.45%. The integration of the RCB infused into the available "pore" spaces vacated by the moisture during the process in this instance illustrates the increased value of Carbon and Hydrogen in the fuel which in part contributes to the higher Btu value and a reliable predictable combustion profile and also results in a very low ash content when compared to non-densified corn stover.

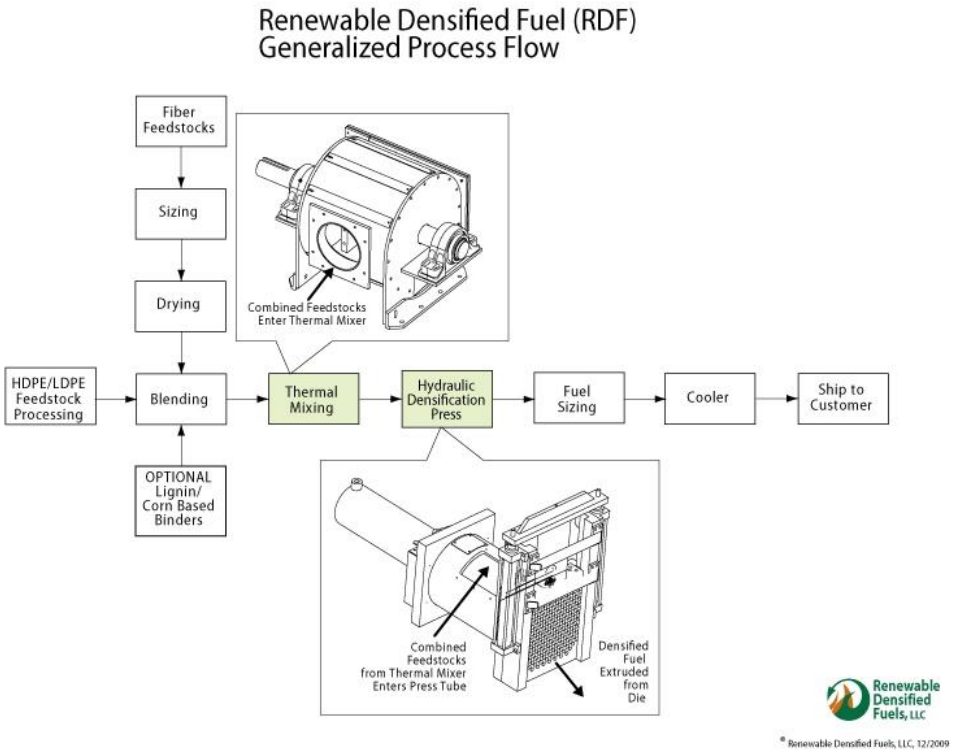
The Renewable Densified Fuels technology created a sustainable biomass fuel that is very resistant to moisture and exhibits very robust handling characteristics allowing for loading via conveyors or bucket loaders for shipping via truck or containers, rail (or barge) while increasing the energy content of the "raw" unprocessed corn stover by over 30%. These are very important end user characteristics since most "fuel" should be able to be off loaded in to storage bunkers for routine storage outside when needed (days or weeks) with minimal physical or energy degradation or loaded directly into existing fuel storage silos or fuel bins (for infeed into a boiler system) using dump trucks as well being able to use existing conveying or materials handling systems at a boiler while providing a high energy low ash renewable fuel.

The corn stover data illustrates the progression of the "value added" fuel characteristics throughout the fuel trails from a raw, wet (field conditions) feedstock (+30%) to a dry (3.91% moisture content) feedstock with an increase in the Carbon value of 12.59% and corresponding Hydrogen value increased by 1.42%. This was in part due to reducing the overall moisture content of the incoming feedstock. When the processed corn stover feedstock is combined with the target 12% RCB (for this fuel trial) and made into a densified fuel the Carbon value increases to 11.06% and the Hydrogen value increases to 2.01% reflecting the value of combining the feedstocks and the infusion of the RCB (that became liquefied during the mixing process inside of the Thermal Mixer) and this proprietary approach provides more effective Btu's into the feedstocks. After exiting the patented Thermal Mixer and cooling the RCB provides superior protection against humidity and moisture, significantly reduces fuel and Btu degradation during storage as well as providing superior handling characteristics. The fuel produced is a sustainable clean burning renewable option that is very low ash and has low fugitive dust potential. The technology allows for production and storage of a renewable biomass fuel from seasonally generated high moisture agricultural residuals. This approach has been used with other (herbaceous) energy crops alone or in various combinations with other organic or woody biomass feedstocks and site storage capabilities are enhanced through densification which results in less onsite storage capacity. The renewable fuel

produced is extremely moisture resistant and durable, all unique qualities to this process. The energy per ton of this corn stover renewable densified fuel has the potential to create over 5 MW of power per ton of fuel consumed depending on power plants or boilers steam conditions and consumptive loads.

Combustion trials of a ¾" x 2" boiler fuel made using a corn stover/woody biomass mix design were conducted for the University of Iowa in their existing coal fired boilers (Boiler No. 10) in the fall of 2010. The combustion and infeed tests evaluated several "system" components including: Transport of the Renewable Densified Fuel in existing coal dump trucks to the coal storage yards (approximately 260 miles); mixing of Renewable Densified Fuel with coal then loaded into live bottom trailers "pre-mixed" for shipment to the University's No. 10 Boiler; unloading at the boiler via live bottom trailers into the underground (coal) bunkers; and infeed of coal and corn stover renewable densified fuel mixture into the boiler system at a 5% Btu value (coal) replacement.

Other combinations of corn stover based fuels have been developed including stover and sugar beet pulp, stover and Arundo, stover and secondary cardboard fibers. In addition, a 100% Arundo Mix design has been developed as well as various combinations of switch grass, stover and Arundo tested for specific client applications. The consistent results have been a robust high Btu value, low moisture, and low ash industrial boiler fuel with good combustion characteristics.



This is only a summary of the corn stover fuel trials. The complete Case Study can be found on the FHE website www.FountainheadEng.com under Case Studies.

Image 1: Examples of Renewable Densified Fuel produced at Johnson Timber Corporation (JTC) facility in Park Falls, Wisconsin.

Image 2: Renewable Densified Fuel produced at the JTC densified fuel plant in Park Falls, Wisconsin shipped via a 50 CY coal (dump) trailer for infeed and combustion trials at the University of Wisconsin River Falls, Wisconsin Campus.