

# Biomass Research and Development Initiative Fact Sheet



**June 2014**

The Biomass Research and Development Initiative (BRDI) provides grants to companies, universities, and government research centers to research and develop (R&D) and demonstrate new ways to refine various types of feedstocks and crops into biofuels or biobased chemical and products. The program was originally created in the Biomass Research and Development Act of 2000 and was later modified and extended in the 2002, 2008, and 2014 farm bill energy titles.<sup>1</sup> The 2008 farm bill provided mandatory funding of \$118 million for FY2009-2012 and optional funding of \$35 million per year from FY2009-2012. The 2008 farm bill expired Sept. 30, 2012, but a one-year retroactive extension passed as part of the Jan. 2013 “fiscal cliff” deal allowed farm bill programs, including BRDI, to receive funding through September 30, 2013 (the end of FY13). The 2014 farm bill provided significantly less mandatory funding of \$3 million for each of FY2014-18 and discretionary (optional) funding of \$20 million per year.<sup>2</sup>

BRDI is funded through the energy title of the farm bill. The farm bill, renewed approximately every five years, is a wide ranging piece of legislation that funds everything from nutrition assistance programs and broadband internet to agricultural subsidies for the production of crops such as corn and soybeans. More specifically, the energy title of the farm bill, first introduced in 2002, provides grants, loans, and other subsidies to energy efficiency, biofuels, and bioenergy (heat and power) projects. In total, the 2014 farm bill energy title’s programs are projected to cost taxpayers \$879 million over the next ten years (FY14-23).<sup>3</sup> Facilities receiving taxpayer support range from universities receiving research and development grants to investigate new uses for biomass sources such as wood and agricultural residues (through BRDI) to large, established corn ethanol companies receiving grants for annual production of biofuel. Other energy title projects funded by taxpayers include the collection, storage, harvest, and transportation of biomass sources to bioenergy or biofuels facilities; anaerobic digesters that create heat and power from animal waste; grants and loans to individuals or companies installing wind, solar, and geothermal systems; and federally backed loan guarantees for so-called next generation biofuels facilities that produce biofuels other than corn ethanol. While intended to support the next generation of biofuels derived from non-food sources and other renewable forms of energy, the farm bill energy title has also spent taxpayer dollars on the mature corn ethanol industry, supporting biomass sources with numerous unintended consequences, and even paying for updates to farmers’ irrigation equipment and grain dryers.

## **Boards and Committees Overseeing the Biomass Initiative**

The two government agencies tasked with administering BRDI include the U.S. Department of Agriculture (USDA) and the Department of Energy (DOE). A Biomass Research and Development Board was created in 2000 to help facilitate interagency cooperation. In addition, a Technical Advisory Committee (TAC), made up of 30 to 40 members from industry, academia, nonprofits, and local government, provides advice and strategic planning to the government on the direction of the program.<sup>4</sup> Currently, representatives of companies benefiting from the

development of the biofuels and bioenergy industry, like Archer Daniels Midland, Dupont, and Solazyme, serve on the Committee.<sup>5</sup>

## Types of Biomass Projects Receiving Taxpayer Funds

About three-fourths of the \$133.1 million awarded from 2009 to 2013 through BRDI subsidized the following types of biomass: general R&D for multiple types of biomass, woody biomass, perennial grasses, and sorghum. Other types of biomass receiving grants include vegetable oil, energy crops, algae, corn starch and corn oil, and municipal solid waste. Additional funding was awarded but due to a lack of detail on USDA and DOE's websites about individual grants all project costs are not included in Table 1.

<b>Table 1: Types of Biomass Receiving Grants through USDA's Biomass Research and Development Initiative<sup>6</sup></b>		
<b>Type of Biomass</b>	<b>Total Payment, 2009-2013</b>	<b>Pct. of Total</b>
Various types/general research and development projects	\$39,906,125	30%
Woody biomass	\$23,750,000	18%
Sorghum	\$19,999,304	15%
Perennial grasses (like switchgrass and miscanthus)	\$19,350,000	15%
Vegetable oil	\$12,078,932	9%
Energy crops	\$6,500,000	5%
Algae	\$5,500,000	4%
Corn starch and corn oil	\$4,250,000	3%
Municipal solid waste	\$1,800,000	1%
<b>Total</b>	<b>\$133,134,361</b>	

## Corn Ethanol Grant Recipients

Corn-based biofuels have received over thirty years of generous subsidies, tax breaks, and government mandates. Yet, the industry is still able to qualify for additional subsidies within the farm bill's energy title that were intended to be targeted toward next-generation biofuels produced from non-food crops. BRDI is no different. In FY2012, the Quad County Corn Cooperative received a \$4.25 million grant to retrofit its corn starch ethanol facility in Iowa to produce byproducts that will be marketed to the biodiesel industry and feed markets.<sup>7</sup> Despite looming questions on the relationship of these types of recipients to the program's intended goal of developing the next generation of biofuels, federal subsidies were still awarded through BRDI.

## Woody Biomass Grant Recipients

Woody biomass is another biofuel and bioenergy feedstock that is eligible for generous subsidies through several different government programs, including at least eight of 15 farm bill energy title programs. Under BRDI, three private companies, one university, and one USDA research

center received \$24 million in grants to develop woody biomass into biopower and biofuels. Recipients include the following entities:

- **Cooper Tire & Rubber Co. (OH):** To optimize production and quality of guayule rubber, a hardwood perennial shrub grown in the Southwest, to use in tire formulations, for biopower, and conversion to jet fuel precursors.<sup>8</sup>
- **Domtar Paper Company, LLC (SC):** To build “a demonstration plant to convert low-value byproducts and wastes from paper mills into higher-value sugar, oil, and lignin products.”<sup>9</sup>
- **Itaconix (NH):** To “develop production of polyitaconic acid from northeast hardwood biomass... [to use as a] replacement for petrochemical dispersants, detergents, and super-absorbents.”<sup>10</sup>
- **University of Minnesota (MN):** To “assess sustainability of forest-based biofuel feedstocks within the Lake States region.”<sup>11</sup>
- **U.S. Forest Service, Rocky Mountain Research Station (MT):** To “develop an integrated approach to investigate biomass feedstock production, logistics, conversion, distribution and end use centered on using advanced conversion technologies at existing forest industry facilities.”<sup>12</sup>

## Conclusion

While the Biomass Research and Development Initiative was intended to spur the development of next-generation biofuels derived from non-food sources, some federal funding has been used to benefit the mature corn ethanol industry. In addition, federal research and development dollars have been spent on for biofuels derived from vegetable oils even though these types of fuels have received subsidies for nearly a decade. Other taxpayer dollars are spent on forms of biomass that create unintended consequences and future liabilities. For these reasons, BRDI should not be renewed in the next farm bill, and spending should be reined in until then.

*For more information, contact Taxpayers for Common Sense at 202-546-8500.*

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<http://webarchives.cdlib.org/sw1vh5dg3r/http://ers.usda.gov/FarmBill/2008/Titles/TitleIXEnergy.htm>

2 <http://docs.house.gov/billsthisweek/20140127/CRPT-113hrpt-HR2642-SOM.pdf>

3 <http://cbo.gov/sites/default/files/cbofiles/attachments/hr2642LucasLtr.pdf>

4 <http://www.usbiomassboard.gov/>

5 <http://www.biomassboard.gov/committee/members.html>

6 [http://www.csrees.usda.gov/newsroom/news/2012news/07251\\_brdi\\_feedstocks.html](http://www.csrees.usda.gov/newsroom/news/2012news/07251_brdi_feedstocks.html),

<http://genomicscience.energy.gov/research/DOEUSDA/2012awards.shtml>,

<http://genomicscience.energy.gov/research/DOEUSDA/2011awards.shtml>,

[http://www.usbiomassboard.gov/pdfs/fy10\\_brdi\\_selections.pdf](http://www.usbiomassboard.gov/pdfs/fy10_brdi_selections.pdf),

[http://www.usbiomassboard.gov/pdfs/joint\\_solicitation\\_2009\\_dl.pdf](http://www.usbiomassboard.gov/pdfs/joint_solicitation_2009_dl.pdf)

[http://www.nifa.usda.gov/newsroom/news/2013news/01112\\_brdi.html](http://www.nifa.usda.gov/newsroom/news/2013news/01112_brdi.html)

7 [http://www.csrees.usda.gov/newsroom/news/2012news/07251\\_brdi\\_feedstocks.html](http://www.csrees.usda.gov/newsroom/news/2012news/07251_brdi_feedstocks.html)

8 [http://www.csrees.usda.gov/newsroom/news/2012news/07251\\_brdi\\_feedstocks.html](http://www.csrees.usda.gov/newsroom/news/2012news/07251_brdi_feedstocks.html)

9 [http://www.usbiomassboard.gov/pdfs/fy10\\_brdi\\_selections.pdf](http://www.usbiomassboard.gov/pdfs/fy10_brdi_selections.pdf)

10 [http://www.usbiomassboard.gov/pdfs/joint\\_solicitation\\_2009\\_dl.pdf](http://www.usbiomassboard.gov/pdfs/joint_solicitation_2009_dl.pdf)

11 [http://www.usbiomassboard.gov/pdfs/joint\\_solicitation\\_2009\\_dl.pdf](http://www.usbiomassboard.gov/pdfs/joint_solicitation_2009_dl.pdf)

12 [http://www.usbiomassboard.gov/pdfs/fy10\\_brdi\\_selections.pdf](http://www.usbiomassboard.gov/pdfs/fy10_brdi_selections.pdf)