



BCO Newsletter

Bioenergy - Climate Protection - Oil Reduction

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Raising Awareness about Biodiesel: Grassroots vs. Grasstops **Sitting Down with Project Biobus Fall 2004**

By Alexandra Morel

Since the invention of the diesel engine in 1895 by Rudolf Diesel, biodiesel has existed as a viable fuel option. Biodiesel is a refined form of vegetable oil, either from virgin or wastes like used fryer oil, which can work in a diesel engine without modification. In fact, his prototype machine was running on peanut oil at the World Exhibition in 1900.¹ So why the need, over 100 years later, to launch a nationwide public education campaign for the aged compatriot of petroleum diesel, biodiesel? Perhaps simply because the U.S. public is not aware of this rapidly growing industry and how easily it can be incorporated into existing transportation infrastructure. With 7.2 billion barrels of petroleum being consumed a year, 21 percent of which is diesel, biodiesel's current annual production level of 25 million gallons makes it seem quite an insignificant alternative fuel. Not so!

Enter Project Biobus, 13 students from Middlebury College, a 1991-model school bus, 90 days, 20 states, 60 schools, 35 public events, and over 11,000 miles traveled with B100 (100 percent biodiesel), on a mission to spread the environmental, public health, and economic benefits of biodiesel. Surely there is a great deal the federal as well as state governments can do to promote biodiesel, but there is nothing like taking the cause to the people. I had the great pleasure of catching up with this intrepid crew at their final event in Washington, DC and was fascinated by the stories they had to tell. What follows is a mere caption of all the amazing work this group set out to complete along with some wisdom they were willing to impart.

On the one hand, committing three months to undergo a grueling public relations campaign on behalf of the still infant biodiesel industry may not seem like a typical college semester; these 13 Middlebury students were all for it. In fact, eight of them had done a similar cross country tour the year before with an even older school bus, converted to run on used vegetable oil from fast food restaurants. According to Jon Overman of Project Biobus, Middlebury College was not convinced this original road trip/rock climbing expedition cum biofuel education campaign was worthy of school funding but soon came around after seeing the headlines roll in from the likes of USA Today. The second time the burgeoning "biobus team" came before the newly appointed College President, Prof. Ronald Liebowitz, they had no problem garnering a considerable sponsorship from their alma mater. One sponsor, whose zealousness and subsequent excitement about biodiesel surprised even the biobus team, is Whole Foods. In fact, the team made a point to visit a number of their store locations as the company would often do significant outreach before the group arrived. Overman mentioned being struck by Whole Food's decision to fly two biobus members from Wyoming to their annual conference in Connecticut to present information on biodiesel.

Overall though, the group seemed to focus outreach efforts on the younger generation, primarily through presentations at schools. Asked why, Overman elucidated what must have been a difficult decision for 13 energized, ready-to-save-the-world college students. "We initially had lofty goals to partner our educational outreach efforts with pushing state and local legislation in support of biodiesel. Though after realizing we were only going to be in a place for such a short time, we decided it would be too much." Besides, as Overman went on to explain, by focusing their efforts on school-age and university students, the team felt they would have a bigger impact. As one student interviewed from Chadwick High School in Southern California said, "[Biobus Team members] are students, and they thought of this themselves. They're our age and we can relate to them."² Also, Overman pointed out that school districts are in a unique position where they can significantly reduce their air pollution, thereby improving the health of their own students, by replacing conventional diesel with biodiesel. As they tell the students they are presenting to, their schools can run school buses, maintenance equipment, furnaces, generators, as well as diesel cars and trucks on the cleaner alternative.

By giving the groups they spoke to easy, straightforward goals to accomplish, the Biobus team was excited by the overall positive response they got. "Making that contact on a personal level, talking to students, and getting them inspired about biodiesel made this whole trip worthwhile."

So how did these grassroots soldiers for biofuels take to a more 'top-down' view on renewable energy advocacy a la the American Council on Renewable Energy and Environmental and Energy Study Institute's policy forum 'A Call for Phase II' (www.acore.org)? "It was an incredible way to end the trip," said Overman. He feels that engagement needs to take place on many levels, both from the bottom-up and top-down. In his view, "Any kind of networking conference is a very effective way of making necessary contacts that create the social capital to accomplish change." Bill Holmberg, of the New Uses Council, encapsulated the group's

work well by saying, “They successfully demonstrated, taught a lot and learned a lot...They found that there was no difference in attitude, no weakening of support for biodiesel, and no loss of commitment to reduce America 's dependence on oil throughout their trip. A job well done.”

As for next steps, after the crew recovers at their respective homes over the holidays, they will begin the process of closing the book on this chapter of Project Biobus. Through their impressive fundraising efforts, they do have a small sum of money leftover they are planning to redistribute to fellow biodiesel advocates. For the most part, it seems the team will move on and complete their various degrees leaving behind a legacy of young and thankfully, more informed minds on the benefits of biodiesel around the country as well as the wonderfully fitting motto, “Veggies Give Us Gas.”

For more information on Project Biobus, please visit the website: www.projectbiobus.com

¹*Biobus Promotes Benefits of Biodiesel. Citizens' Environmental Coalition News Update, July 9, 2004 [www.cechouston.org/news/2004/nu-07-04.html]*

²*Magic Bus Comes to Chadwick School, Palos Verdes Peninsula News, November 11, 2004 [pvnews.nminews.com/articles/2004/11/11/local_news2.txt]*

FEATURE ARTICLES

What to do with the Woody Debris from Florida 's Hurricanes?

After an unprecedented hurricane season for Florida , during which four hurricanes and a tropical storm made landfall, most post-mortem statistics look rather grim. According to Insurance Journal, as of October 1, insurance claim payments for hurricane victims will exceed \$22 billion. That number is second only to the losses incurred from the 9/11 attacks, roughly \$32 billion. In fact, the four hurricanes individually are ranked as among the ten costliest hurricanes in U.S. history.¹ Hurricane Charley, category 4; Frances, category 2; Ivan, category 3; and Jeanne, category 3; ravaged the Gulf Coast , the East Coast, and the Panhandle respectively. Approximately 110 people were killed either directly or indirectly within the United States and scores more in the Caribbean.² Florida's citrus crop has been reduced significantly, with orange production down 27 percent and grapefruit production down a record 63 percent. Certainly their respective prices will be rising as Florida constitutes 75 percent of the nation's citrus products.³

But, at the county and community level, removing and processing storm debris is of primary concern. According to Francine Joyal, specialist for the Dept. of Environmental Protection (DEP), Florida has 137 yard-waste processing facilities that were speedily brought online to meet the unprecedented demand, and officials are still trying to evaluate how much debris will need to be managed. There has been a concerted effort to educate citizens on the importance of separating clean vegetative waste from C&D (construction and debris) waste, in hope of minimizing the amount of waste relegated to the landfills. Some percentage of the debris is being incinerated openly, particularly in one of the hardest hit areas, Escambia County . Nevertheless operators have quickly realized that incinerators are not effective for the disasters' debris levels. Where an incinerator may be able to handle 500,000 cubic yards, counties are facing levels of approximately 6 million.⁴

While many families and businesses are beginning the arduous process of recouping their losses, some industries are attempting to reap what profits they can from these overly abundant biomass resources. For instance, Peterson Organics of Fort Myers has been collecting the clean debris for their mulching enterprise. They have seen record collection rates and cubic yards of debris. John Peterson, president of Peterson Organics, stated, “Florida processes something like three to four million tons of yard waste a year... According to [the Florida Emergency Management Agency (FEMA)], there were 18 million cubic yards [roughly 1.5 million tons] of debris from Hurricane Charley, alone.” The mulch that will be produced generally stays within state lines, with the demand for mulch having grown steadily over the past 15 years.⁴

There is also the potential of producing energy from the chipped woody debris. Joseph Murray, CEO and President of Green Energy Resources based in Huntington , New York , has been outspoken against land-filling of the waste biomass. In his words, “Chipping, rather than dumping, turns the storm-damaged wood into a marketplace commodity.”⁵ Considering Florida does have

relatively little renewable energy resources (it has predominantly solar and a little wind) the state has already turned to ‘waste-to-energy’ technologies as an alternative to imported fossil fuels. Currently half of the state’s population is serviced by 13 facilities producing energy from solid waste. In fact, Florida produces more energy from solid waste than any other state. Collectively these facilities generate 500 MW of power from 20,000 tons of municipal solid waste a day.⁶

With this existing capacity for power production from waste paired with the burgeoning supply of woody debris, and the promise of high heating prices this winter, one would hope that Florida’s county commissioners would have the foresight to take advantage of this overwhelmingly available resource. In the words of Joseph Murray, “Hurricanes create real choices with real options- higher tax bills, open-air burning and overburdening landfills, or an opportunity to recover tax dollars, create jobs, expand state exports and benefit the environment. I, for one, believe the choice is crystal clear.”⁷

Unfortunately, the decision was not as clear for Lee County . As of November 30 on the island of Boca Grande , a fire burning the debris from Hurricane Charley has been burning for 9-12 hours, five days a week since August 30. Supervisors of the burning were unable to say how much woody debris had been burned but the scale was in the acres, according to Bob Green, senior supervisor for the Parks and Recreation Department. The truckloads of woody debris were brought to the 10-acre burning site with nearly 5 acres of debris being burned at one time. The decision to burn hurricane debris was easy for Boca Grande as hauling the waste off the island was not deemed feasible. Luckily, the wind only changed direction once during the three months of burning, carrying the offensive smoke and ash out to sea.⁸

¹ *Insured Losses from Four Florida Hurricanes*, *Insurance Journal*, October 1, 2004 [www.insurancejournal.com/news/national/2004/10/01/46438.htm]

² *Storm2004*, *PalmBeachPost.com*, [www.palmbeachpost.com/storm/content/weather/special/storm/2004/atlantic/]

³ *Hurricanes Ravage Florida Citrus*, *CBS News*, October 12, 2004 [www.cbsnews.com/stories/2004/10/12/printable648856.shtml]

⁴ *Processing Woody Debris Post Hurricanes*, *Biocycle*, November 2004 [www.biocycle.net/biocycle.htm]

⁵ *Green Energy Resources, Inc Encourages Recycling of Wood Wastes Following Hurricane Charley to Off-set Damage Costs*, *SolarQuest® iNet News Service*, Aug. 18, 2004 [<http://www.solarquest.com/news/article.asp?id=7099&ssectionid=0>]

⁶ *McKay Bay Refuse-to-Energy Facility Retrofit Project* [www.tampagov.net/dept_solid_waste/mckay_bay/index.asp]

⁷ *Joseph Murray , Press Journal Letters to the Editor*, September 3, 2004

⁸ *Gavin Off, Sun-Herald*, November 30, 2004 [www.sun-herald.com/NewsArchive2/113004/tp6ew6.htm?date=113004&story-tp6]

LEGISLATIVE UPDATES_

Pennsylvania Passes More Ambitious RPS: Targets Include Coal Inputs

On December 7, Gov. Rendell signed Pennsylvania ’s Renewable Portfolio Standard (RPS) that will go into effect in 90 days. The Alternative Portfolio Standards Act, Senate Bill 1030, mandates that 18 percent of the state’s energy will be derived from alternative sources by 2019. Sponsored by Sen. Edwin Erickson (R-Delaware), SB1030 passed with a 32-15 vote in the Senate and a 161-35 majority in the House. The applicable technologies are divided into two tiers with differing target percentages. By 2019, eight percent of electricity will be produced from Tier one sources, including solar, wind, low impact hydropower, geothermal, and biomass energy as well as biologically derived methane gas, fuel cells, and coal mine methane. Ten percent of the state’s electricity will be derived from Tier two technologies, including waste coal, distributed generation systems, demand-side management, large-scale hydropower, municipal solid waste (MSW), co-products of wood manufacturing, and integrated combination gasification technology. This bill, unlike existing standards in other states, does include significant inclusion of fossil energy sources. Perhaps to counter the large-scale implementation of those conventional sources, SB1030 stipulates solar energy requirements anticipated to yield 400 MW of new photovoltaic capacity.

Sources: Renewable Energy Access, Energy Online Daily News, E&E News

Ontario Adopts Average Renewable Fuel Standard

Effective Jan. 1, 2005, Ontario's Renewable Fuel Standard (RFS) will require the total of all gasoline to contain five percent ethanol by Jan. 1, 2007. This mandate will not require all gas stations to provide blended gasoline, but instead sets a goal for the province's gasoline on average. The standard provides a credit-trading system whereby companies that produce a blend higher than 5 percent ethanol would receive credits to sell to companies unwilling to sell blended gasoline. In statements made by Premier McGuinty, he admitted that forcing all gas companies to use ethanol would be too costly and complicated. McGuinty announced this RFS would effectively reduce emissions from 200,000 vehicles from Canada's largest province of 12 million. Currently the province has only one ethanol production facility, Commercial Alcohols, Inc., that is producing 130 million liters of ethanol annually for Sunoco, Pioneer, and UPI. Ontario imports 95 million liters a year from the United States. To meet their projected goals, the province would need to build at least three or four more ethanol plants in order to produce 750 million liters a year. This would result in up to 3,000 new jobs for Ontario and potentially an attractive launching point for the Canadian-based cellulosic ethanol production company, Iogen.

Sources: *CNews, Premier of Ontario Press Release*

Colorado RPS Ballot Initiative Successful

Since Nov. 2, Colorado has been lauded repeatedly for passing the first Renewable Portfolio Standard (RPS) by ballot initiative. Colorado is the 17th state to pass a state-wide RPS and currently produces 2 percent of energy consumed from renewable sources. The RPS would impact Colorado utilities with 40,000 customers or more. The standard would take effect in Jan. 2007, when 3 percent of energy consumed will be from renewable sources. The state's utilities will be required to produce 6 percent of their energy from renewable sources between 2011 and 2014 and 10 percent by 2015 and afterwards. The RPS stipulates that at least 4 percent of renewable energy will be produced from solar technologies and customers' monthly residential electricity rate increases will be capped at 50 cents. Applicable renewable technologies include energy derived from wind, solar, geothermal heat, biomass, land-fill methane, animal waste, hydrogen fuel cells, and small-scale hydroelectric. The measure also establishes a renewable energy credit trading system for utilities unable to meet the standard's requirements and awards rebates to customers purchasing photovoltaic systems.

Sources: *Pew Center on Climate Change, Renewable Energy Policy Project*

New Hampshire Representative Offers Investment Credit for RETs

On Dec. 8, U.S. Rep. Charles Bass (R-NH) introduced the Renewable Energy Security Act of 2004 (H.R. 5302), which was referred to the House Subcommittee on Energy and Air Quality. To date, the bill has four co-sponsors, including Rep. Jeb Bradley (R-NH), Rep. John McHugh (R-NY), Rep. Rick Renzi (R-AZ), and Rep. Fred Upton (R-MI). The legislation is modeled after the Energy Tax Act of 1978 that established a 10 percent investment credit for photovoltaic systems. The investment credit would cover 20 percent of expenditures for a qualified renewable energy system, which includes labor costs, assembly, or original installation as well as drilling for an on-site geothermal deposit. The credit would be available for renewable energy technologies (RETs) that heat, cool, provide hot water, and/or generate electricity for residential and small business taxpayers whose primary residence is located in the United States. This measure defines renewable technologies as energy that is produced from solar, geothermal, biomass, and wind (though only for residential purposes) sources. Applicable forms of biomass include any organic matter that is 'available on a renewable or recurring basis,' such as: "agricultural crops and trees, wood and wood wastes, plants, grasses, residues, fibers, animal wastes, municipal wastes, and other waste materials." The maximum credit awarded for residential purposes would be \$3,000 and \$10,000 for energy projects serving small businesses. The value of this credit would be decreased by the amount of any previously awarded production tax credit.

Also this fall, Rep. Scott McInnis (R-CO) introduced H.R. 5266 on October 7, an amendment to the tax code that would encourage investments in technology utilizing woody biomass to produce electricity. This investment tax credit would equal 20 percent of expenditures for a woody biomass electricity facility. Applicable woody biomass includes: trees and woody plants, as well as bark, limbs, tops, needles, leaves, stumps, roots, and other woody parts that are by-products of restoration and hazardous fuel reduction treatments, disease and insect infestation management activities, or other management activities related to removal, manipulation, or silvicultural treatments. This bill has been referred to the Committee on Ways and Means.

RECENT STUDIES

CAST Issue Paper: A Place for Bioenergy in the Future

On November 8, the Council for Agricultural Science and Technology (CAST) released their latest Issue Paper titled, "Bioenergy: Pointing to the Future." The Issue Paper consists of five parts exploring a number of pertinent topics surrounding producing energy from biomass, including an introduction to the issue followed by discussions of bioenergy technology, economic impact, environmental effects, and commercial availability. The CAST Task Force was comprised of seven authors and three reviewers.

This report gives a concise breakdown of the concerns and controversies surrounding bioenergy, while keeping the discussion in the context of energy alternatives. Roger Conway, Co-Chair of the Task Force and Director of the USDA Office of Energy, provided a useful introduction to current levels of energy consumption and fossil fuel use. Conway points out that 86 percent of energy consumed is produced from fossil fuel sources, and 60 percent of gasoline and diesel used are derived from imported oil. Paul Gallagher, of Iowa State University in Ames, revealed that in the last 20 years both energy consumption and energy import dependency for the United States has doubled.

While some have decried the federal expenditure of 52 cents per gallon of ethanol in 2003 as a reason this fuel is not economically viable, they ignore the significant amount of funds invested in the fossil fuel sector. A 1990 U.S. General Accounting Office study calculated a hidden cost for imported gasoline of \$3 per gallon above consumer price, which like today was during a war in the Middle East. As Conway also points out, biobased fuels will appear more expensive superficially because the environmental benefits are considered "externalities" and not included in the cost calculation.

As for the benefits to rural economies of a biobased energy economy, the potential is huge. In Gallagher's section on the Economics of Bioenergy, he combines estimates from one of his studies in 2003 with those of Dr. Marie Walsh of Oak Ridge National Laboratory in 2003, to conclude bioenergy from agriculture could displace 25-30 percent of petroleum imports. He suggests using a combination of underutilized crop residues and 8.1 million of the 13.8 million hectares currently in the Conservation Reserve Program. He also discusses the number of reasons why the relatively unstable market for biofuels requires a certain level of market. For instance, the environmental benefit is an externality and therefore not included in the profit calculations; there is a significant national security benefit; investments in bioenergy are predominantly in rural areas; investors shy from building a biofuel plant that may become obsolete with rapidly changing technology; and bioenergy profits are tied tightly to shifting government regulations.

To maintain the environmental benefits of bioenergy, beyond the reduced carbon dioxide, sulfur dioxide, and carbon monoxide emissions, improved land practices will need to be developed. Peter Smith, with the National Resources Conservation Service, gives a very useful outline of the potential for energy crop production on Conservation Reserve land while urging the adoption of strictly sustainable harvesting practices on these sensitive lands. Also capture of methane emissions from livestock operations could add a further environmental benefit. Often farmers are already faced with a daunting animal waste problem, and anaerobic digestion offers both an economic and environmental solution.

As each section of this Issue Paper was written separately, there are no overarching conclusions offered the reader explicitly. A reader can clearly see a bioenergy movement gaining momentum and significant research being performed to help bring the technologies to market. There are certainly still hurdles to overcome, namely governmental support of less sustainable energy options and increased research and development that is needed to improve existing technologies. As Roger Conway says, "Biomass has lower energy density than fossil feedstocks and is distributed over large land areas. For liquid fuels, energy-efficient, low-cost technology must be developed to gather and convert biobased feedstocks into liquid fuels."

For more information on this effort and copies of the Issue Paper please visit the CAST web-site at:

http://www.cast-science.org/cast/src/cast_top.htm

NEWS BRIEFS

Colorado Biodiesel from Rapeseed

With the help of a \$450,000 USDA Value-Added Producer Grant and a \$500,000 USDA Sec. 9006 Renewable Energy Systems Grant, Blue Sun Biodiesel LLC has begun preparations for a \$4 million biodiesel plant that will rely on rapeseed, the preferred feedstock in Europe . Rapeseed has the advantage over more conventional feedstocks, such as soy or recycled cooking grease, because 45 percent of its weight is oil (versus 20 percent for soybeans) and it can be harvested with the same equipment as other small grains. Jeff Probst, previously an executive for Duracell Batteries, decided to develop an environmentally friendly energy source upon arriving in Colorado . He liked the idea of purchasing a feedstock for biodiesel outside of the commodity market where government price supports often cause wide price fluctuations. And, as he says, "Feedstock is 85 percent of the cost of 100 percent biodiesel." Establishing the Blue Sun Producers Cooperative, currently with 40 member-producers in Colorado , was no easy task for Probst. He had difficulty convincing farmers to invest the minimum \$5,000 equity stake, until "the Value-Added Producer Grant was announced in the fall of 2003, it really helped our credibility in the farm sector." Also Probst's firm is gaining notoriety in the business sector with Blue Sun's commitment to biodiesel quality control. According to Scott Bentz, VP for Operations and Marketing with Cummins Rocky Mountain , "[Blue Sun] has developed their own infrastructure for blending and distribution, so they can eliminate most of the opportunities for problems. And they make a superior product."

Source: *Rural Cooperatives, USDA/Rural Development, November/December 2004* <http://www.rurdev.usda.gov/rbs/pub/nov04/nov04.pdf>

Renewable Energy in America : The Call for Phase II

December 6 and 7 saw over 500 concerned government officials and staff with leaders of renewable energy companies, associations, professional service firms, financial institutions, foundations, nonprofit organizations, and universities gathered on Capitol Hill to discuss next steps for the renewable energy industry. The event was co-organized by the American Council on Renewable Energy and the Environmental and Energy Study Institute in conjunction with the House and Senate Renewable Energy and Energy Efficiency Caucuses. The policy forum called for 'Phase II' of the renewable energy industry, whereby renewable energy technologies will be commercially available on a widespread basis. There were a series of panels and speakers presented to discuss such topics as national energy needs, technology and policy readiness, as well as U.S. energy security. Remarks were made by Sen. Wayne Allard (R-CO), James Woolsey, Steve Zwolinski (President of GE), and Amory Lovins (author of Winning the Oil Endgame), among others. "The United States is blessed with an abundance of widely varying renewable resources across every region of the country. The technologies to tap these resources are available. Hopefully this conference will serve to energize policymakers as they begin the 109th Congress and once again have major energy policy issues before them," said Carol Werner, Executive Director, EESI.

For more information visit the web-site at www.acore.org.

USDA Forecasts Record Corn Crop for 2004

USDA predicts corn harvests to be up 15 percent at roughly 11.6 billion bushels. Speculation as to the reason for this year's bumper crop are focused on farmers' successfully planting early and uncharacteristically warm temperatures in September as being among key factors. In the short term, this crop could be a real boon for the emerging ethanol industry, which currently utilizes 10 percent of corn produced in the United States . The primary application for corn is livestock, with USDA estimating six billion bushels to be consumed this year. Corn usage for ethanol is predicted to be 1.4 billion bushels, up roughly 170 million bushels from last year. This year's crop is expected to be an anomaly, with questions of how the ethanol industry's growing appetite will be met in the coming years. With corn exports expected to soften, an increased domestic demand should continue to drive increased productivity. As Jeff Broins, CEO of Broin Companies, a firm based in South Dakota , points out, "The challenge we face long-term is the fact that if we continue to use a significant additional amount of corn each year, it's going to take an increasing amount of acreage and steadily increasing yields to sustain ethanol industry growth."

Source: *Bonanza Corn Crop Expected for 2004, Ethanol Today, November 2004*

Ethanol Production Updates

According to recently released information from the Renewable Fuels Association, there are currently 82 ethanol facilities producing 3.5 billion gallons of ethanol. Sixteen ethanol plants are under construction with an annual capacity of 755 million gallons. August 2004 saw another all-time monthly record for ethanol production at 225,000 barrels per day. August 2003 saw a

production rate of 180,000 barrels per day.

Georgia , Got Biodiesel on the Mind?

In November, a conference on biodiesel was held at the Georgia Farm Bureau. There are currently no state incentives specific to Georgia for the production of biodiesel but the state legislature was urged to change that by the state Agriculture Commissioner Tommy Irvin.¹ This event comes roughly a year after Georgia legislators, biodiesel industry leaders, and a former U.S. president met at a Georgia Biodiesel Summit held at the University of Georgia in October of 2003. At that event, both Jimmy Carter and Speaker of the Georgia House, Terry Coleman (D-Eastman), spoke of the need to act sooner rather than later on developing this alternative fuel industry.² Rome , Georgia is currently home to U.S. Biodiesel, a company that produces biodiesel from chicken fat. Also, construction is expected to begin soon for a larger plant producing biodiesel from soybean oil in Brunswick . The main impetus for promotion of biodiesel discussed at the event was reducing U.S. dependence on Middle Eastern oil. As conference organizer, Mark Detwierler, President of the Georgia/Florida Soybean Association said, biodiesel “is not just about soybeans”, other major motivators are, “the need to reduce American independence on foreign oil, add jobs, and reduce air pollution.” Conference sponsors included National Biodiesel Board (NBB), Georgia Farm Bureau, and the United Soybean Board. More information on the conference can be found at <http://www.mga-cleancities.com/bioconference.asp>.

¹ *Biodiesel Offers Potential Environmental, Economic Benefits*, Heather Duncan, *Macon Telegraph*, November 10, 2004

² *Carter Pushes for biodiesel in Georgia*, *Southeast Farm Press*, October 15, 2003

In North Carolina , Biodiesel Production is on the Way

The North Carolina Grain Growers Cooperative announced Dec. 17 it will build a \$20 million biodiesel manufacturing plant in Mount Olive , with an annual capacity of 15-20 million gallons. The site was chosen due to its proximity to 8.5 million acres of soybeans, according to Charles Davenport, a member of the cooperative. Davenport also projected, “the plant will employ 20 people directly and will provide a number of related jobs in transportation and fuel distribution.”¹ Earlier this month, the Golden LEAF Foundation, a foundation administering half of North Carolina ’s tobacco settlement, announced their investment of \$5 million in the project. Though it has not been finalized yet, the plant will be owned by the Atlantic Bio-Energy LLC and will begin operation in 2006. This plant is predicted to be the largest of its kind in the Southeast, with an annual capacity expected to meet the blending requirements for the state’s annual use of 1.1 billion gallons of petroleum diesel. After the initial refining plant is built, the growers hope to bring a \$25 million crushing plant on line at the same site.²

The Grain Growers Cooperative was organized in 2001 to develop possible value-added products for North Carolina farmers. According to Britt Cobb, the State Agriculture Commissioner, “Farming is not what it used to be. No longer can we just grow crops and raise animals. We’ve got to be able to take it to the next level-we’ve got to add value.”

For more information on the Grain Growers Cooperative visit: www.graingrowersinc.com

¹ *New Grain Cooperative plans area biodiesel plant*, Ginger Livingston, *The Daily Reflector*, December 18, 2004 [www.reflector.com/news/content/stories/2004/12/18/20041218GDRbiodiesel]

² *Farmers to turn soybeans into fuel*, David Rice, *Journal Raleigh Bureau*, December 18, 2004 [www.journalnow.com]

Grim Agriculture Sector Predictions for 2005

The USDA predicts that next year’s farm product imports will equal exports. The department forecasts exports to total \$56 billion next year, falling from this year’s record \$62.3 billion. This precipitous decline in total exports has been blamed on record crop production causing drops in prices for grains, oilseeds, and cotton, added to the increased competition from foreign producers. Added to the fall in exports is the projected rise in imports to \$56 billion from \$52.7 billion last year. Previously, the U.S. government had relied on the sizable agriculture trade surplus to off-set the growing manufacturing trade deficit. According to the

USDA, the majority of increased imports will be coming from the EU, Mexico , Canada , China , Indonesia , Brazil , and Australia .

Source: *U.S. Farm Product Imports to Match Exports in 2005*, Neil King Jr., *Wall Street Journal*, November 23, 2004

Blueprint for an Agriculture and Energy Initiative

A group of nationally respected grassroots agricultural leaders has launched a major initiative designed to examine agriculture's role in ensuring U.S. energy independence. Operating as the "Ag Energy Work Group", the leaders are exploring the future role that the farm sector can play as energy producers. After networking with their peers throughout the country, the working group has developed a draft vision statement as a starting point for additional dialogue on the overarching contribution which the agriculture sector can make as a producer of energy. Specifically they believe that by 2025 agriculture can provide 25 percent of the total energy consumed in the United States while continuing to provide abundant, safe and affordable food and fiber. The working group is calling on the potential productive capacity of the Ag sector to provide an increased supply of biofuels for transportation, increased energy harnessed from wind and solar as well as captured through anaerobic digestion, conversion of agricultural wastes into value-added energy feedstocks, and effective sequestration of carbon through increased biomass productivity. This lofty goal would mean huge investments in rural development, creating alternative revenue streams for this nation's farmers, not to mention the environmental benefits of cleaner energy. According to project coordinator Ernie Shea, "American agriculture is well positioned to significantly expand its role in the development and implementation of new energy solutions and we are actively recruiting farm and ranch leaders to join with us in further exploring these opportunities" The project is sponsored by the Energy Future Coalition. More information about the initiative can be found at the project web site www.agenergy.info.

Poorly Mixed Biodiesel, a Danger for Ski Resorts

Snowmass Ski Area had to quickly avert a potentially dangerous situation. On-site- rather than plant-mixed biodiesel had been used in the ski area's snowcats and ski lift generators. Once the cold temperatures had settled in the biodiesel in the snowcats began gelling, causing their engines to break down temporarily. According to Doug Mackenzie, Snowmass Ski Area manager, "No damage was done to the machines; they were just out of commission for a few hours." He would not comment on who the fuel supplier was. Nevertheless, the huge headache entailed replacing the badly mixed diesel blend in all of the ski lift generator tanks immediately. As Auden Schendler, the ski area's director of environmental affairs, asserts, the problem has nothing to do with the effectiveness of properly mixed biodiesel. If it had been an issue inherent to biodiesel all four mountains would have been impacted. Now that the crisis has been averted, Mackenzie is not overly concerned with maintaining the use of B20 with an additive that will prevent the fuel from clogging engines during cold snaps. The ski company is currently spending an additional \$50,000 annually on its biodiesel program.

Source: *Snowmass avoids fuel catastrophe with lifts*, Stephen Benson, *The Aspen Times*, December 17, 2004 [www.aspentimes.com/apps/pbcs.dll/article?AID=/20041217/NEWS/41217002&te]

Upcoming Events

Date	Event	Location	Further Information
Jan. 20-21, 2005	Harvesting Clean Energy V	Great Falls, Montana	http://www.harvestcleanenergy.org/hce.html
Jan. 23-26, 2005	US Composting 13 th Annual Conference & Trade Show	San Antonio, Texas	http://www.compostingcouncil.org/section.cfm?id=30

Jan. 30-Feb. 2, 2005	National Biodiesel Conference and Expo	Ft. Lauderdale, FL	http://www.biodiesel.org/expo2005	<u>Notable Quotables</u>
February 7-9, 2005	10 th Annual National Ethanol Conference "Homegrown for the Homeland"	Scottsdale, AZ	http://www.ethanolrfa.org/nec.shtml	
March 7-9, 2005	Biocycle West Coast Conference 2005	San Francisco, CA	http://www.jgpress.com/conferences1/archives/biocyte_west_coast_conference_2005/000290.html	

"I've never had as much job

satisfaction as with this, because it is the right thing to do," he said. "Every time I fill up, I know I'm not paying somebody who would like to kill me."

Greg Hopkins, president of U.S. Biodiesel

Writer: Alexandra Morel, Thomas Ashley
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