

Introduction—Significant Need for Biodiesel Education Efforts

First Year Efforts Pave the Way for Successful Education Program

National survey results indicate that as of June 2004, 27% of U.S. consumers surveyed have heard of biodiesel, but only 9% are very or somewhat familiar with the product. By comparison, nearly nine-in-ten consumers have heard of ethanol (88%), and 42% are very or somewhat familiar with that product. Yet after reading a brief description of biodiesel and its benefits, more than three-fourths of consumers surveyed say they would be very or somewhat likely to use the product.

Another indication that biodiesel may be well received by consumers was their reported willingness to pay more for the product, after learning about some of its benefits. Specifically, 61% say they would pay more for the product, though most consumers are in the 1-4 cents more per gallon (28%) or 5-10 cents more per gallon (22%) range. These results highlight the significance of, and need for, a coordinated national education and outreach program.

The National Biodiesel Board (NBB) will successfully complete year one of the USDA sponsored Biodiesel Fuel Education Program in September 2004. The education program has allowed NBB and the biodiesel industry to strengthen education activities and, *in many cases, initiate efforts that were previously not possible due to a shortage of resources.* The National Biodiesel Education Program has helped to initiate ASK BEN, the “go to” source for petroleum distributors. Curriculum has been developed for elementary and middle school children to educate our future leaders on the benefits of biodiesel. A volunteer speakers bureau has been created to allow consumers to hear directly from biodiesel users. Critical feedback is being secured regarding the heating oil industry and its potential for biodiesel. The public is able to hear about the benefits of biodiesel through programming such as “Doc in the House”. Vital relationships are being forged with groups such as the DC Chapter of the American Lung Association, taking the biodiesel message to an urban audience, where common interests merge.

All of these success examples would not have been possible if not for the Education Program. Without any doubt, the USDA program comes at a crucial time in biodiesel’s history and the industry is making the most of it by targeting specific consumer and user groups, leveraging resources and activity with other entities, and using the best expertise possible to implement programming.

As documented in this report, NBB’s program has already made tremendous progress in increasing awareness of the benefits of biodiesel. Planned activity for 2004-2005 will build upon these previous efforts and successes. This program description, organized by the six major objectives approved previously by USDA, is both a summary of highlights from the current year’s effort and an outline of planned activity for the upcoming year.

Primary Objectives of the NBB Biodiesel Education Program

As Approved by USDA

To address issues outlined by industry stakeholders, a comprehensive and coordinated effort is required. NBB respectfully submits the enclosed plan of work that will implement activities to enable the following objectives to be achieved:

- 1) Ensure effective and efficient development of the biodiesel industry through:
 - a) Industry coordination and collaboration of technical and marketing efforts
 - b) Coordination with other biodiesel education programs, at the local, state, and federal levels, including the Energy Policy Act (EPACT)
- 2) Development of a results-oriented nationwide education program based on:
 - a) Ongoing collection and dissemination of biodiesel information
 - b) National networking that provides an information delivery system to targeted audiences
 - c) Conduct outreach programs to the general public, including environmental groups
- 3) Providing of technical support and outreach to commercial users
- 4) Identification and documentation of:
 - a) Biodiesel benefits
 - b) Information gaps
 - c) Market barriers
- 5) Implementation of programs to help ensure fuel quality and consumer confidence
- 6) Evaluation and documentation of industry and program progress

These objectives are addressed in-depth under the “Plan of Work” section below. Implementation of these objectives will accelerate biodiesel’s integration into the fuel infrastructure and ultimately an increase in biodiesel sales.

Year 1 Progress Report & 2004-2005 Plan of Work

The following information will provide highlights of current activity and a framework for future activity under the National Biodiesel Education Program. NBB, in many instances, exceeded original planned activity under this year’s program and welcomes the opportunity to spend additional time with the USDA Advisory Committee to provide additional details for either current progress or planned activity for 2004-2005.

Objective 1. Ensuring effective & efficient development of the biodiesel industry

Tremendous growth in the biodiesel market (all aspects including sales, interest, and investment) has created the scenario where it is both more important and more challenging to coordinate market development activities in an efficient manner. This welcome hardship comes in many forms; more consumer demands for information, more groups wanting to conduct programming, more industry players that wish to help mold industry strategies, more differences in opinion on the best paths forward, more demands on resources requiring a targeted “rifle” approach for research and education programs. And the list goes on!

The first year of USDA funding was put to use by enhancing the NBB priority setting process. It was possible to seek input from a larger group of stakeholders and thus, create a very sound program that was voted on by the Directors of the National Biodiesel Board. This set of ranked priorities was utilized to develop the second year of planned activity for the National Biodiesel Education Program. Although the USDA Education Program has bolstered funds for biodiesel outreach, serious shortfalls remain for a national education & outreach program as well as other aspects of the commercialization process. The priority setting process appears to remain the best and most efficient method to target resources to those programs that will have the greatest impact for the biodiesel industry. The 2004 Program Priorities, as ranked by industry, were:

NBB Program Priorities

National Energy Initiatives	\$346,000
State Energy Initiatives	300,000
OEM Program	395,000
2007 OEM Technology Development	700,000
Cold Flow Additives	200,000
Consumer Education and Outreach	320,000
Reducing NOx with Existing Engines	75,000
Heating Oil Development	125,000
Electrical Generation	35,000
Fuel Cells	50,000
	\$2,546,000

Elements of the National Biodiesel Education Program will help address (i.e. fund or co-fund) many of these priorities in 2004-05, including State Energy Initiatives, OEM Programs, Consumer Education & Outreach, and Heating Oil Development.

In order to further increase fleet and consumer input into the process, advisory panels have been formed or will be formed. Specifically, an EPACT Fleet Advisory Panel will be formed to provide direct feedback to NBB regarding outreach programs, better methods to educate fleets, issues from the field, credit trading programs, etc. NBB will use this information and feedback to better tailor education & outreach programs or, in some cases, to address technical issues that may arise.

The goal is to have a small number of fleet managers that have significant biodiesel experience that will provide honest and direct feedback and can help identify industry trends and issues. This particular panel is composed of approximately 5 federal fleet representatives, 3 state fleet representatives, and 3 alternative fuel providers (utility companies).

Panel members will receive information and updates from NBB and/or its panel facilitator on a regular basis. This information may take the form of general bulletins, general advisories, or specific mailings to the panel. At least twice each year, the panel will meet via conference call. An agenda and supporting materials will be sent to each panel member prior to the conference call. The conference calls will be utilized to seek input on what panel members are hearing from the field, to review current NBB education efforts, to suggest ideas or concepts for future outreach efforts, etc. This panel is formed and should begin functioning in September, 2004. At least two additional consumer panels are planned in year two.

NBB held the Biodiesel Research Brainstorming Session April 15-16 in New Orleans. Thirty researchers and technical professionals representing biodiesel manufacturers, petroleum companies, academia, and USDA and DOE laboratories met to hear researchers present recent findings. Biodiesel related research issues were discussed and the group brainstormed on ideas for additional research. Some of the outcomes from the conference were:

Emissions

- The cause of NOx increases is as of yet undetermined
- Emissions testing on newer engines is imperative.
- Biodiesel tail pipe emissions in the future will be less relevant for on-highway applications due to new generations of cleaner burning engines
- More testing needs to be conducted on biodiesel blends with DPFs and catalysts

Stability

- More testing is needed to determine the best test method
- Testing of long-term storage on B20 needs to be conducted

Other activities included regular activity with international partners such as the European Biodiesel Board and a collaborators meeting that was held in Palm Springs, CA at the Biodiesel Conference & Expo.

Planned Activity for Year 2:

Working with **MARC-IV**, NBB will continue to *utilize a consensus-based decision making process that integrates all sections of the biodiesel industry to establish industry priorities.* USDA funding will be utilized to enhance prioritization efforts that culminate in the 2005 Biodiesel Industry Priorities ranked and voted on at the meetings in Ft. Lauderdale, FL (in conjunction with the 2005 Conference & Expo). In addition funding will be utilized to implement fleet advisory panels, such as the Fleet Advisory Panel, to secure honest and reliable feedback from the marketplace. In addition to the Fleet Advisory Panel, advisory panels are planned for the marine and trucking markets. Input and feedback from these groups will be incorporated into future education plans and strategies. The Research Focused Workshop will again be sponsored by the USDA program. In order to attract more OEM participation with this meeting, plans are to change the venue to Detroit, MI or Chicago, IL. Other activity in year 2 will revolve around efficient implementation of the overall education program, including a collaborators meeting in February, 2005 in Ft. Lauderdale, FL. Finally, NBB strives continuously to coordinate and leverage programs with other entities. In addition to coordinating activity with the **University of Idaho** and international groups such as the European Biodiesel Board and the Biodiesel Association of Canada, NBB is working to formalize relationships with other groups such as the Regional Biomass Energy Programs and the Council

of Northeastern Governors. Benefits of this coordination should results in leveraged funding for activity and consistent messaging.

Objective 2. Developing a results-oriented nationwide education program.

NBB will build upon a successful program from year one and implement a results-oriented nationwide education program. Because most market segments are at different stages of commercialization, national education efforts will be developed based on individual market conditions. NBB will continue to leverage relationships with strategic partners and work cooperatively with groups such as the **University of Idaho** to implement this program. NBB continues to strive to “multiply” education activities through strategic relationships and educating/training those individuals that are in constant contact with potential users.

This part of the education program is composed of three components: 1) efforts that support the overall program such as the speakers bureau and internship program, 2) a targeted market education program, and 3) the public outreach efforts to environmental and health groups.

Supporting the overall program, NBB and the expert speakers bureau crisscrossed the United States providing speakers and expertise at important meetings and conferences. It continues to be frustrating, both for NBB and interested groups requesting support, that all invitations for speakers cannot be met. Criteria have been established to help evaluate speaking engagements. These criteria consider the market segment, number of individuals in attendance, publicity, and the potential for the message to be “multiplied” by the audience members. The number of event requests also highlights the need for a volunteer speakers bureau that has been organized and will be implemented in year 2. Events ranged from petroleum distributor meetings to county fleet managers; from state Departments of Transportation to Electric cooperatives; from national trucking groups to school districts.

The sheer enormity of educating on a national basis led NBB to implement a philosophy of “educating those that are in a position to educate others”. These programs, called “Train the Trainer” sessions, are designed to educate individuals and arm them with information, materials, and programming to educate those within their organizations. The Train the Trainer program conducted at the National Clean Cities provides a good example of how successful this effort can be. Clean Cities coordinators are in daily contact with fleet managers, consumers, and the general public. Dozens of coordinators left this session grateful for the current and credible information. They will take that information back to educate fleet managers and other decision makers in their cities.

Many other elements were implemented to support the education program. Training aids were conceptualized and will be constructed in the second year of the program. NBB crafted and released numerous press releases documenting industry efforts, and press interviews were given on an almost daily basis. Examples of news releases include; NOx additive testing, retail pumps opening in the City of Denver launching a pilot program, Willie Nelson using biodiesel in his personal vehicle, usage by school districts in Colorado, and NBB news.

Press interviews ranged from Keith Lewis of Oil & Energy Magazine about biodiesel’s potential to be used as heating oil to Richard Sacks, Senior Editor/Research-Reporting Reader's Digest to Jon Stewart, Business Writer for the Frederick News-Post (Frederick, MD), about the first biodiesel conference to Bill Werdey of Wired Magazine about Navy’s commitment to biodiesel production.

Planned Activity for Year 2:

To carry out objective 2(a) for on-going collection and dissemination of information that will support the overall program, NBB will work with MARC-IV to routinely evaluate individual market conditions, determine education needs, and develop “the business case” for use by diesel-powered fleets. Cytoculture will provide assistance to NBB in completing the hands-on education aids that were conceptualized in year one of the program. These aids should provide a tremendous boost in the ability to educate consumers at conference and tradeshow.

NBB will also continue to make use of both an expert speakers bureau as well as a volunteer speakers bureau. Experts identified that collaborate on this project include: **Richard Nelson (Kansas State University), Kelly Strebig and Ken Bickel (University of Minnesota's Center for Diesel Research), Randall von Wedel (CytoCulture), David Williamson (Ecology Center), Joshua Tickell (Tickell Media), Alan Weber, Steve Howell, and Leland Tong (MARC-IV)**. The volunteer speakers bureau program will reimburse speakers for their travel expenses when necessary and enable consumers to hear directly from their peers. Guidelines for the program are in place and a training program will be implemented for these volunteers at the 2005 Biodiesel Conference & Expo as a pre-conference training session. All speakers have been, or will be, trained accordingly in order to conduct "Train the Trainer" sessions. Volunteer speakers who have already received this training include Lou Summerfield of Glacier National Park, Ken Bullard of Channel Islands National Park and Seth Powell of Tri-Gas and Oil. **AgInsight**, an Iowa based meeting firm, will assist NBB with logistics for programming and **KCE** will assist with overall communications efforts.

New for year two NBB is implementing an internship program with the **Lincoln University**, an 1890 School, which will both assist NBB in implementing the education program and also help train young minds. NBB looks forward to the opportunity to actively participate in educating collegiate students. The arrangements with Lincoln will be formal in nature and allow students to achieve college credit as well as compensation for their efforts. NBB will also continue to develop cooperative relationships with underrepresented groups and associations to help implement the education program throughout this year. The ongoing program with ALADC will also assist in this area. Additional formal arrangements for future years are anticipated.

To achieve objective 2b, national networking that provides an information delivery system to targeted audiences, NBB will reach out to: government and private fleet managers, the trucking industry, the marine industry, the agriculture industry, the railroad industry, and school bus fleets. Targeted outreach efforts include:

Government and Private Fleet Managers

Twelve years ago, Congress enacted the Comprehensive Energy Policy Act of 1992. The intent was to strengthen national energy security by displacing imported petroleum through the promotion of alternative fuels and alternative fueled vehicles. Biodiesel demand created by a desire for energy security represents a real market and was highlighted as the number one attribute of biodiesel in the recent national omnibus survey.

Fleet managers of centrally fueled fleets, including EPACT fleets, have been one of the industry's highest priorities. Although managers are becoming more aware of biodiesel, there is still much work that can be done. This program has supplemented the ongoing effort to educate fleet managers about biodiesel, including: the economics of biodiesel; dispelling myths; addressing changes in Original Equipment Manufacturers' positions on biodiesel, and educating EPACT fleet managers about expanding opportunities for biodiesel. Specifically NBB has written articles that have been placed in the GSA Vehicle news, a primary publication for government fleet operators.

The biodiesel industry was represented at the FedFleet conference in New York and served on speaking platforms to help educate attendees. NBB also attended and presented at the EPACT Conference in Helena, MT and the Florida Government Conference in Tallahassee, FL.

Planned Activity for Year 2

Government fleet operators will continue to be both a valuable resource as well as a continuing market. Therefore federal fleets and other fleets impacted by the Energy Policy Act of 1992 remain a key outreach target for the National Biodiesel Board. Luckily, NBB was successful at leveraging this portion of the outreach program with assistance from the soybean checkoff. *Education & outreach activities for this market segment will be funded by Nebraska soybean farmers in 2004-05.*

Trucking Industry

The biodiesel market has grown rapidly over the last several years from under a million gallons in 1999 to over 25 million gallons in 2004. Very little of that growth has occurred in the trucking industry the main barrier for biodiesel in this market, even in low blends, is cost. According to the USDOE Energy Information Administration, on-highway diesel use was more than 34 billion gallons of diesel. Most of that was used by the trucking industry. The trucking industry is a strong potential user of biodiesel. There are two initiatives that may help open up this large potential market for biodiesel. They are the federal tax incentive and the ultra low sulfur diesel rule.

The ultra low sulfur rule will be enacted in 2006 and the biodiesel tax incentive is now in several key pieces of legislation in Congress and has a good chance of eventually passing. With both provisions enacted we expect the trucking market will open up for low blends of biodiesel use. To be ready to take maximum advantage of these developments we need to begin the outreach and education effort to the trucking market now.

A foundation was laid during the first year of the education project and many trucking fleets were introduced to the benefits of biodiesel. NBB attended and represented the industry at key national conferences such as the American Trucking Association Annual Conference and the OPIS conference. Efforts were also targeted direct to the fleets themselves. NBB and its collaborators met with fleets and

fleet associations such as the Indiana Motor Carriers Association, Lohr Distribution, the annual Fleet Fueling Conference in Nashville, TN, and the Osage County Highway and Transportation Department during their annual meeting. The industry also attended the National Association of Fleet Administrators Conference in Atlanta, GA and met a misinformation campaign by some members of the ATA head-on with an official response and follow-up meetings in Washington, DC. Surveys of trucking executives and truck stop operators, which are nearly complete, will help NBB target these efforts.

Planned Activity for Year 2

Specific goals for the second year of the education program include to:

- Educate the industry on the many benefits of biodiesel use and overcome any technical concerns the industry may have regarding low blend biodiesel use
- Make the industry aware of the federal and state policies that support biodiesel use
- Educate the industry on the availability of the fuel and how to implement biodiesel within their fleet

The **National Biodiesel Board** will implement the trucking outreach effort. Activities will include the establishment of an industry advisory panel, increased communication efforts (news releases and article placement), utilization of the volunteer speakers bureau at key conference and events, and participation in key industry conferences such as the American Trucking Association “Management Conference and Exhibition”.

Marine Industry

The marine industry has shown slow but steady growth in biodiesel interest. Biodiesel’s nontoxic, biodegradable nature makes it ideal for sensitive marine ecosystems, and boaters have also noticed biodiesel keeps their boats cleaner while at the same time reducing the “diesel” smell that many people find nauseous. Marine biodiesel users also appreciate the lubricity benefits of biodiesel as well as the high flash point of the fuel that makes it safer to handle.

Cost concerns prevent many of the commercial marine interest from using biodiesel currently but due to all the above benefits many in the marine recreational markets have shown a willingness to pay a premium for biodiesel today. The main reason that many recreational boaters are not using biodiesel now is their lack of awareness of the benefits of the fuel. An outreach and education effort directed at this market will have an immediate impact on creating interest in using the fuel in the recreational marine diesel market.

Almost 100,000 boaters and boating enthusiasts were introduced to biodiesel through placement of biodiesel information in the Press Telegram during the first year of the program. A greater degree of activity will be initiated in year two.

Planned Activity for Year 2

Specific goals of this effort during the second year include to:

- Educate potential recreational marine biodiesel users about the benefits of biodiesel in the Chesapeake Bay and South Florida which are two of the largest potential markets for marine biodiesel use and are also located in some of the most ecologically sensitive costal areas in the country
- Educate marinas about the benefits of biodiesel in ecologically sensitive costal areas

As resources are limited, NBB has selected two groups to assist with the education efforts in two key boating areas. The **Chesapeake Bay Foundation** will assist with education activities in the Chesapeake Bay area and the **Ft. Lauderdale Clean Cities** program will assist in the U.S. yachting capital. Planned activity includes boat shows, press releases and stories in popular boating magazines, and Train the Trainer sessions. Successes in two primary boating areas should enable an expanded program in the future.

Agricultural Industry

The agricultural community has significantly increased the availability and use of low blend biodiesel by requesting it from suppliers and distributors. Recent surveys indicate that more than 30% of the agricultural market is now using biodiesel blends. EPA's off-road diesel fuel regulations should continue to spur on demand. This regulation will reduce the sulfur levels in off-road diesel fuel to 15 parts per million (ppm) and will create the need for lubricity additives. Biodiesel would work as a low level blending component to improve fuel lubricity while providing environmental, economic, and energy security benefits.

During the previous two fiscal years the United Soybean Board (USB), a soybean farmer funded organization, provided resources for a communications program centered on farm level usage of low-blend biodiesel. This effort was very successful at increasing both the availability and consumption of biodiesel in agricultural applications. The USB, as well as many state soybean groups, *will invest more than \$1 million in FY05 to further educate farmers and build on that success. Therefore, funds from the USDA program will not be utilized for this specific market segment. State and national soybean groups remain willing to collaborate with NBB to educate farmers and maintain a consistent national message.*

School Bus Fleets

NBB and the National Energy Education Development (NEED) exceeded all planned activity during the first year and have established a great base for a successful program in year 2. School bus market outreach efforts were twofold; 1) to create curriculum for students that will educate them about biodiesel and 2) to begin workshops designed to educate teachers and school administrators about the use of biodiesel blends.

The first decision maker workshop was held in Louisville, KY and an additional workshop is currently being planned. The event was a success with presentations from fuel suppliers, state agency officials, and school bus districts. In addition, a biodiesel specific brochure for decision makers was designed and printed for use through the program. The Biodiesel Curriculum Guide, a guide for teachers to implement a basic biodiesel education program at levels K-12 was finalized by NEED. The curriculum has received very positive feedback from teachers and is being introduced nationwide. Perhaps an even more amazing fact is the level of effort from NEED that goes above and beyond the original scope of work for the USDA program. NEED has conducted the following activities to support the biodiesel education effort without compensation from the budget in year one. Examples of those activities are:

- Alternative Fuels Debate Game created for students to debate the viability of the alternative fuels. A substantial section on biodiesel included. Sponsored by NEED.
- Alternative Fuels Expo activity created for students to create displays and presentations on transportation fuels. A substantial section on biodiesel is included. Sponsored by NEED.
- Biodiesel activities included in the NEED Energy Exchange newsletter. Two issues. Sponsored by NEED. Mailing list for newsletter 11,000
- Biodiesel actually used in several NEED field trips during the NEED Energy Conferences for Educators. World Energy provided biodiesel for a field trip in Silver Bay/Albany, New York as part of the NEED New York Energy Conference. World Energy provided speakers. Attendees:

50. Sponsored by NEED and the New York Energy Research and Development Authority. Biodiesel was used in the NEED Energy Conference field trip in Hyannis, Massachusetts.
- NEED Energy Conferences for Educators - 350 educators attended. There were biodiesel sessions at each conference. Conferences hosted in Hyannis, MA; Galveston, TX; and Long Beach, CA. Sponsored by BP, Cape Light Compact, American Petroleum Institute – Houston Chapter, the Offshore Energy Center, and 10 state energy offices.
 - Annie Rasor – NEED Program Associate in Columbus, Ohio – presented Biodiesel for Decision Makers and the Biodiesel curriculum documents for a Ohio Clean Fuels Coalition teacher meeting. 50 teachers in attendance
 - Karen Reagor – NEED Program Associate in Covington, Kentucky – presented Biodiesel for Decision Makers and the Biodiesel curriculum documents in three Kentucky workshops. In addition, biodiesel was a component of the Kentucky Energy Conference for Educators hosted in June 2004. 65 teachers in attendance.
 - NEED Youth Awards for Energy Achievement – biodiesel sessions – June 2004. Hyatt Regency Crystal City. 400 students, 100 parents, 100 teachers in attendance. One project of note: Harrison County High School – Kentucky – lead teacher Kim Jenkins and her students completed an entire year of study on alternative fuels – with biodiesel as their prime subject. The school manufactured biodiesel as part of the project.
 - Teachers involved in the Cape Cod, MA programs and 40 others from surrounding states participated in a 2 hour session at Upper Cape Technical School in Bourne, MA. Upper Cape Tech works with Cape and Self Reliance to consider alternative fuels. They manufacture their own biodiesel.

This project has encouraged more school bus fleets to consider the use biodiesel, and it has definitely been successful at reaching the youth of today. School districts in five states have received funding to use biodiesel under the EPA Clean School Bus grant program—four more than last year.

Planned Activity for Year 2

The school bus markets interest in biodiesel has been rapidly growing over the last several years. School administrators and school bus fleet managers are becoming more and more aware of the benefits of using biodiesel through the efforts described above. The primary barrier that prevents schools from using biodiesel now is the incremental cost of the fuel.

While the industry waits for a federal biodiesel tax incentive that would greatly reduce these cost barriers there are existing federal and state alternative fuel programs that could provide support to schools now that would reduce the incremental cost of using biodiesel in school bus fleets. An outreach and education program could be designed to not only educate school officials about the benefits of using biodiesel but also educate them about the federal and state programs that they maybe eligible for participation.

In addition, interest has escalated in requests for biodiesel education curriculum at all grade levels as well as education materials that can be used at state fairs and other public events. Biodiesel educational material which was developed in the first year of the program continues to need to be promoted and made available to school officials and other interested organizations such Farm Bureau, youth groups, etc. The overall goals of the second year will be to:

- Continue to educate school decision makers about the benefits of using biodiesel
- Develop tools, such as a website, that will help educate school officials about the federal and state programs that they may qualify for
- Continue to make schools and other organizations aware of the biodiesel education curriculum that is available

NBB will again work with the **National Energy Education Development (NEED)** program to implement teacher and decision maker training programs. Six of these workshops will be held during the upcoming year. Leveraging resources will be a priority. There has been a heavy demand for these types of meetings and NEED is working hard to leverage grant money as much as possible to respond to as many of these requests as possible. To date, NEED has helped to secure commitments from state energy offices and state soybean associations in IL, MI, NC, MN, NE, and MO to help support these meetings. In addition NEED, a group that has been a shining star during the first year of the grant, will continue to introduce the materials at all of its 600+ NEED workshops, in-services and presentations during the school year and utilize its energy education network to expand the programs into a variety of communities and regions.

Mr. **Fred Henderson**, a former teacher and consultant that has helped to develop a biodiesel science kit, will also assist with implementing the school bus programming. **NBB's IT Department** will assist with any web-based activities.

Railroad Industry

Limited education and market development efforts with the railroad industry have previously been conducted. The railroad industry, similar to all commercial markets, is cost sensitive and few, if any, regulatory drivers currently exist to spur alternative fuel demand. However, the tax incentive provisions currently being considered by Congress may extend provisions to off-road applications. Efforts will center on building awareness among railroad operations for future potential use, as well as education of federal state incentive programs. These activities will be reactive in nature, and conducted when NBB receives requests for information.

Accomplishing objective 2(c) will result in programs to educate the general public, including health related and environmental groups. The omnibus survey conducted in year one highlights that Americans view the health benefits of biodiesel as a crucial reason for using biodiesel. Environmental attributes are important, but not to the same degree according to those results. Examples of public education programs from year and plans for year two are:

Health Related Groups

The **American Lung Association of the District of Columbia** (ALADC) has integrated biodiesel into its health education and outreach efforts throughout the nation's Capital where more than 10,000 children suffer from asthma. This project also serves as a pilot for biodiesel efforts with health organizations across the country and helps establish a model of biodiesel outreach to urban communities as well as diverse ethnic populations. (ALADC's biodiesel project coordinator wrote her master's thesis on communications of health messages to ethnic groups.) ALADC has identified opportunities for biodiesel use by the Washington, D.C. Area Metro Transit Authority (that has backed away from use of compressed natural gas) as well as school buses and construction sites. Education and outreach activities have included creation of a health brochure about biodiesel, inclusion of biodiesel in presentations at "Living With Asthma" nights as well as at government agencies. Washington Post news coverage recognized ALADC's use of biodiesel to transport children to "Camp Happy Lungs". ALADC also works to integrate NEED biodiesel information into its efforts. In September, the ALADC will hold a news conference about how biodiesel can help be part of the solution for asthma. The event will also help educate D.C.'s faith-based groups about biodiesel and their role in helping the DC area improve its air quality that received an "F" rating the American Lung Association's 2004 State of the Air report. ALADC and the NBB are also cooperating for biodiesel recognition through "Team Biodiesel" that will participate in the ALADC's "Blow the Whistle on Asthma" Walk in October. ALADC is assisting the NBB in making introductions to other lung associations across the country and is planning a biodiesel presentation for the Chief Executive Officers of lung associations who will be meeting in Washington, D.C. in December for a national meeting.

Dr. Henry Fishman's **Doc on the Dial** program on WMAL radio has provided a natural complement to the ALADC project in educating the Washington, D.C. area population about the benefits of biodiesel. Dr. Fishman has covered a wide range of biodiesel topics and local uses in the 52 segments that have aired as of September 2. He aired a special program with the ALADC Chairman Dr. Bailus Walker about the health benefits of biodiesel and also promoted the "Living with Asthma" Night program that he voluntarily hosted with ALADC. WMAL also met its deliverables of providing biodiesel information on its website that recognizes USDA's support of the Doc on the Dial program.

Plans for Year 2

The **American Lung Association of the District of Columbia** (ALADC) will continue a biodiesel educational demonstration campaign that will serve as a model for lung associations and other health and air quality groups across the nation. Upon completion of the project in FY06, ALADC will present a report of the project's accomplishments at the American Lung Association National Conference and provide guidance for local chapter implementation. Funding of this proposal will allow the ALADC to distribute brochures, fact sheets and other resources as well as implement an outreach program developed in FY04. This includes meeting with Washington potential fleet users such as WMATA, and attending community health fairs and reaching out to Washington area environmental/health groups. Such efforts will gain greater visibility through media outreach conducted by ALADC and NBB.

Armed with the educational tools developed in FY04, the Project Coordinator will educate the identified communities on the health effects of using biodiesel rather than diesel fuel. The Project Coordinator will also enlist respected members of the target audiences to disseminate the educational messages. The coordinator will implement strategic plan developed in FY04 for the outreach campaign by setting up and

attending meetings with community, business and governmental groups, potential users, and distributing information on biodiesel. The coordinator will also get the biodiesel message out through strategic communications with media.

The District of Columbia has the highest rate of childhood asthma in the nation and can benefit greatly from biodiesel's value to the health of urban residents. ALADC has already won awards for its work with diverse ethnic communities, and that background will help broaden and strengthen the project as a model for the nation. Soybean checkoff funds will complement USDA funds by providing resources to help pay for biodiesel fuel as well as printed materials. Surveys of health leaders performed in FY04 will help in effectively educating other organizations. **KCE** will assist with management of the program.

Environmental Groups

Environmental organizations are being recruited to speak out in favor of biodiesel in order to broaden support for biodiesel. Although it may seem that environmentalists would naturally support cleaner-burning biodiesel, they have been slow to embrace it. Some are critical of biodiesel because it works with diesel technology. Others believe that any fuel that comes from agricultural resources is perpetuating an ecologically unsound process. Environmental groups could become powerful allies of the biodiesel industry for two reasons: 1) As diesel technology improves, the environmental drivers are shifting toward climate change, air toxics, hydrocarbon reduction, and renewability – issues biodiesel is best positioned to address; and 2) Environmental groups are typically very action-oriented, mobilized, and vocal.

Tickell Media, the Ecology Center and Cytoculture met with the Natural Resources Defense Council (NRDC) to discuss benefits of biodiesel. NRDC has not had a strong positive position on biodiesel in the past. At the meeting, NBB presented NRDC with health effects data and discussed the large body of evidence showing biodiesel's positive environmental attributes, even at the B20 level. NRDC was open to reviewing information and considering a position change on biodiesel. Future effort is planned.

NBB met with representatives of the Built Green Colorado program to discuss the decision to make use of B20 in construction equipment a qualifying factor in green building programs on a national scale.

NBB also exhibited at the National Recycling Coalition Annual Congress & Expo, held in San Francisco Aug 29-Sept 3. There were close to a thousand attendees, including decision makers and recycling/solid waste coordinators. Preliminary discussions have been made with the National Recycling Coalition, Green Action, CAR Lite, Sonoma Conservation Action, Energy Now, Union of Concerned Scientists and Environmental Defense Fund to consider a positive position regarding biodiesel.

Planned Activity for Year 2

NBB will partner again with **Cytoculture** and **Tickell Media** to reach out to environmental organizations and educate them about the benefits of biodiesel, and provide general support of the Biodiesel Education Program. Tickell Media and Cytoculture will reach out to organizations such as the Sierra Club, Natural Resources Defense Council, the Bluewater Network, and Nature Preserve to enlist them to the biodiesel cause.

The objectives will be accomplished through setting up meetings with environmental leaders, attending/speaking at environmental workshops and conferences, and integrating biodiesel information into existing communications networks of environmental groups. Recruitment of environmental organizations to join the Biodiesel Alliance, a coalition of groups showing their support for biodiesel, will also help accomplish the goals. Surveys of environmental leaders performed in year one will help in effectively winning over organizations.

Objective 3. Implementation of a technical support and education program targeted at fuel distributors, fuel refiners, and vehicle and engine manufacturers.

The need for technical support & outreach has proven to be a growing need. During the first year of the education program, NBB has implemented an intense effort with vehicle and engine manufacturers and the petroleum industry. It is difficult to describe the level of interest and demands for credible, timely information in the marketplace. This first year of technical outreach effort is marked by steady progress and a promise of great outcomes for the program's future. Detailed below are highlights of both program areas.

Education & outreach with the Original Equipment Manufacturers (OEMs)

In year one, NBB initiated an intensive effort with the technical side of the OEM community to encourage support of biodiesel, and has recently increased the priority of OEM outreach. NBB is working with **ASG Renaissance**, a minority owned firm that has working relationships with several OEMs. With USDA funding, NBB utilized ASG Renaissance to undertake an intensive and sustained effort to incorporate biodiesel into the corporate fabric of the OEMs. It is working to finalize the incorporation of biodiesel into the short- and long-term research & development programs and promotional efforts with diesel engine manufacturers and auto/truck makers at the corporate level. In addition, ASG is increasing the knowledge base and support for biodiesel with diesel equipment dealers and distributors at the local level. Specifically, ASG worked to:

- Generate letters from fleets or major biodiesel customers that encourage OEMs to fully support use of B20 biodiesel
- Incorporate statements within company literature (brochures, web sites, etc.) that in a positive manner support the use of biodiesel
- Ensure that OEMs are quoted with positive things to say about biodiesel within national and local media sources

ASG has flooded Detroit with the biodiesel message through meetings with all major vehicle and engine manufacturers and participation with key events such as the SAE Government & Industry meeting. The SAE Government & Industry Meeting in Washington D.C. May 10-12, with over 600 industry enthusiasts and 45 media outlets, is one of the biggest media draws of the season in Washington D.C. while Congress is out of session.

Additional significant activity included the distribution of the NBB Fleet Survey Results press release over the PR Newswire as part of a special Auto Features Package. The release was distributed on March 30, 2004 through PR Newswire's most comprehensive national circuit available, including about 4,200 news outlets, 4,000 online services, automotive trade publications and posting to the PR Newswire media (70,000 registered journalists) and public web sites.

After working with NBB to create an extended version of the original Fleet Survey Results press release for distribution at the SAE Government & Industry Meeting in Washington D.C., ASG distributed the expanded release to an Automotive Media List as well. ASG made direct phone calls to all 121 media outlets identified on the NBB Automotive Media List to determine the appropriate Automotive Editor contact at each publication and their preferred method for receiving the release (email, fax, etc.) ASG also used this opportunity to "pitch" the release to these editors.

More than 50 fleets were contacted regarding letters to be sent to their respective OEMs voicing their support for biodiesel. These letters will help document the growing user base to the OEMs. Activities such as these are have positive impacts and will result in the OEMs stating a more positive position on the use of biodiesel in their warranty statements.

Finally, NBB has to report “watch this space” regarding at least one public announcement from an OEM. Effort under the Education Program has yielded a wonderful public relations opportunity that should be announced in the Fall of 2004. NBB will keep USDA posted and make them aware prior to any public announcements.

Petroleum distributors and refiners education

The **Minnesota Biodiesel Council** and **Advanced Fuel Solutions, Inc. (AFS)** led this effort to develop a comprehensive biodiesel training program to address the proper handling of B100 by petroleum terminal personnel including receiving, storing, dying and blending of finished biodiesel product. After only one year of effort, this has resulted in:

- A positive working relationship with petroleum industry stakeholders
- A significant increase in the number of petroleum marketers carrying biodiesel
- An increase in biodiesel availability

AFS and **MARC-IV** attended the 24th annual Independent Liquid Terminal Association conference and trade show held in Houston Texas June 14th through the 17th and had substantive additional discussions with petroleum pipeline companies and refiners at the ASTM meeting in Salt Lake City June 20-24. Much of the discussion centered on recent changes to the diesel fuel specification regarding lubricity.

The impact of the adoption of the lubricity specification in D 975 on the biodiesel industry will be significant. First, there will be some portion of the current diesel fuel pool that will need a lubricity additive in order to meet the new specification. This additive could be biodiesel in low blend levels. Second, the current pipeline distribution system for diesel fuel and gasoline require that the fuel meet ASTM specifications prior to being put in the pipeline system. This may mean that any lubricity component would need to be added by petroleum refiners at the refinery before being placed in the pipeline and it may render the addition of any additive—including biodiesel—after the terminal or downstream blending facilities as an un-needed expenditure to improve fuel lubricity since it will already meet lubricity standards before being placed in the pipeline.

Presently, diesel additives are not blended before diesel fuel is pushed through the pipeline. The primary reason additives are not added at the refinery level is the concern that trace residual additives will be picked up by jet fuel as it is being transported through the pipeline in later shipments. Jet fuel allows only certain pre-approved additives, and for jet fuel to contain even ppm level ‘normal’ diesel additives is against FAA regulations. Pipeline companies tried several years ago to put red dye into off-road diesel fuel at the refinery level (so the terminals wouldn’t need to deal with it) and aircraft companies found that levels as low as 10 ppm red dye could adversely affect jet engines. The airline industry is adamantly against inclusion of ANY diesel additives that are not approved for Jet fuel (i.e. lubricity additives) at the refinery level in order to virtually assure no contamination of jet fuel will occur.

The new lubricity specification for diesel fuel of 520 mm minimum wear scar with the HFRR that has just been added to diesel fuel specifications and becomes effective January 1, 2005 could change that thinking. Most pipelines want diesel fuel to meet at least the ASTM specifications prior to being placed on the pipeline, so this could cause some pipelines to change their existing diesel additive positions to see if it is possible for the diesel lubricity additive, or biodiesel, to be added at the refinery prior to being placed on the pipeline. This was discussed in detail at the June, 2004 ASTM meetings in Salt Lake City, and the general consensus of the ASTM Jet Fuel committee was that addition of the lubricity additive should occur preferentially at the terminal rack and not at the refinery, although there will be added work to see if it is possible.

One of the primary takeaways from these conferences, and the multiple meetings following such as with Teppco, BP, etc. is that decisions are being made now regarding lubricity additives in diesel fuel.

Although a significant amount of time was invested in discussions with refiners and pipeline terminals, NBB and AFS also implemented an innovative program to help educate downstream petroleum entities. This program, the Biodiesel Education Network, was named ASK BEN and has been linked on multiple websites including the Petroleum Marketers Association of America (PMAA) and the New England Fuel Institute (NEFI). The effort, launched in late July, has already been used extensively by the petroleum industry. In addition, NBB has designed and written “Biodiesel Education Network News,” a new quarterly newsletter for the petroleum industry. A dozen state soybean organizations have distributed the newsletter to petroleum distributors in their state. Finally, MARC-IV, KSU, and NBB also supported companies such as Growmark by speaking at multiple distributor locations to answer questions related to the storing and blending of biodiesel.



Planned Activity for Year 2:

Planned activity in year 2 will be a continuation of the successful program that was initiated in the first year of the program. The **Minnesota Biodiesel Council** and **Advanced Fuel Solutions, Inc. (AFS)** will continue a sustained effort to implement biodiesel training programs to address the proper handling of B100 by petroleum terminal personnel including receiving, storing, dying and blending of finished biodiesel product. Outreach efforts will again leverage resources of organizations such as the Petroleum Marketers Association of America. These efforts are of utmost importance considering the urgency of refiners and terminals to make lubricity additive decisions.

ASG Renaissance, working under the supervision of **NBB** and **MARC-IV**, will implement the OEM program. Efforts in year two are geared to the following areas:

- OEM Communications—to work with OEMs to encourage them to make public statements of support for biodiesel (either verbally in public forums or written).
- Dealer Communications—to educate dealers on their OEM warranty positions.
- Public Relations/Public Outreach

ASG Renaissance will design and coordinate a promotional campaign to encourage representatives from the major OEMs to sign up to receive information on biodiesel. An OEM registration database will be created and information will be distributed, such as the NBB Biodiesel Bulletin, press releases, and reports (e.g. Fleet Manager’s Survey) to OEM subscribers on a regular basis. The purpose of this outreach activity is to continuously reinforce pro-biodiesel messages to key OEM constituents and to educate OEM stakeholders on OEM warranty status issues. “Train the trainer” programs will be implemented to ensure that the maximum number of potential consumers become aware of the benefits of using biodiesel.

In addition to working directly with the major OEMs, ASG Renaissance will coordinate a letter writing campaign to focus pressure upwards and educate OEMs on fleet needs. The letter writing campaign will provide fleet managers with everything they need to let the OEMs know that fleets support biodiesel, and fleets support OEMs that support biodiesel.

Working with the dealer relations departments at Volkswagen, Ford, GM and DaimlerChrysler, NBB and ASG Renaissance will create and distribute up-to-date biodiesel warranty information to every dealer in the OEM network. Elements of this tactic include:

- Work with dealer relations to distribute biodiesel information through office company channels
- Development of biodiesel direct mail informational pack for each OEM
- Direct mail distribution to dealers in the OEM network

The **Center for Diesel Research** and **Cytculture** will also assist with these efforts.

Objective 4. Identify and document biodiesel benefits, information gaps, and market barriers

NBB continues its efforts to document biodiesel benefits, identify gaps in information, and develop strategies to address market barriers. **MARC-IV** will continue to assist NBB with this activity. Year one activities centered on documentation of biodiesel cold flow properties, the evaluation of the heating oil industry, and the identification of information gaps and market barriers.

The **Center for Diesel Research** led efforts to document biodiesel cold flow properties. This collection of information, which will be completed at the end of the fiscal year, will help alleviate consumer concerns regarding cold flow issues. While overseeing this effort, **MARC-IV** also identified an information gap relating to the knowledge basis for storing and blending biodiesel (cold flow related). **MARC-IV**, in conjunction with Advanced Fuel Solutions (AFS), helped lead the Biodiesel Cold Flow Blending Optimization project. The Minnesota Task Force on B2 Implementation identified additional data needed in order to design, purchase, and install the needed equipment to blend 2% biodiesel into cold diesel fuel in the winter in Minnesota at the terminal rack. This data is also needed in other states, so **MARC-IV** initiated an effort, on behalf of NBB, to identify the scope of work and funding needed to secure this needed data.

No immediate funds were available for this effort, however, the desire for this data was so high that an effort was initiated to develop a consortium of petroleum and biodiesel interests that would each put in \$5,000. To date, most of the petroleum interests in Minnesota are now members of the consortium (i.e. Marathon Ashland, Flint Hills, Magellan, BP Amoco, Tessoro Refining, etc.). *This effort highlights both the value of the USDA program in helping to identify information gaps and market barriers and the effort put forth by NBB and its collaborators to leverage the program to implement needed projects.*

Advanced Fuel Solutions working with the New England Fuel Institute (NEFI) developed a heating oil fuel dealer survey to better understand the potential for biodiesel blends in the oilheat industry. NEFI is a nationally recognized business association of 1,100 member companies in the heating oil and related heating service industry and was an excellent partner for the effort. To date, more than 100 dealers (out of 350) have responded to the survey. Preliminary information suggests that dealer tolerances would be \$.0360 for a domestically produced lower emission fuel. Given the current economics of biodiesel production, this equates to a 4% blend of B100 into #2 heating oil (500 ppm or 2000 ppm).

One of the goals of the survey was to ascertain a fuel dealer's knowledge of biodiesel as well his/her willingness to become involved near term. Survey results indicate that although 78% of the fuel dealers were aware of recent studies on biodiesel, only 23% could list specific environmental factors that would be attributed to bioheat use. In addition, 78% of respondents said they would be willing to market bioheat but said 95% of their customers were not aware of the environmental attributes of bioheat. This information will be summarized by the end of the fiscal year and will for the basis for the outreach and education programs for year 2.

As gaps and barriers were identified, **MARC-IV** and other collaborators worked to address those issues. As an example, **MARC-IV** developed white papers to address immediate market information needs regarding the life cycle of biodiesel and the impact of BSE. Closer interaction with the University of Idaho on topics such as this are planned for next year.

Planned Activity for Year 2:

Planned activity in year 2 will be targeted at the heating oil industry, sharing of cold flow information, and working with the University of Idaho to identify gaps and barriers and implement programs to address shortfalls. The **Center for Diesel Research** will be responsible for the development and sharing of outreach material relating to biodiesel's cold flow properties. **Advanced Fuel Solutions** will assimilate all technical data presented to transition respective success factors into measurable benefits that

both the industry and fuel suppliers can use to promote the BioHeat product enroute to securing satisfied home and commercial fuel oil customers. This will include coordination with industry leadership groups such as the New England Fuel Institute, National Oil Heat Research Alliance, New York State Energy Office, Massachusetts Oil Heat Council, Vermont, Maine, Rhode Island and New Hampshire Heating Oil Councils.

The education activity is timely as the Oilheat industry is in the process of trying to re-invent itself through NORA advancing cleaner fuel and being more environmentally friendly. There is a sense of urgency to combine the introduction of biodiesel as a blend stock with the NORA effort. Since the volumes consumed in the retail heating oil market are so large, even low blend rates will be a huge market expansion for biodiesel. At this time niche marketers continue to market biodiesel, however, the reality is that these pioneers are doing so simply to capture the spirit and edge of being first to the market and obviously to be viewed as visionary and environmentally colored.

Industry leaders and retail company owners who were interviewed for the feasibility study were receptive to the image enhancement of biodiesel. There is a limited understanding of the attributes of biodiesel by the NORA board and the industry in general, there needs to be a significant educational/marketing effort to bring the message about biodiesel to the Oilheat market place. This effort should be coordinated with NORA so that the concept would have industry endorsement.

NBB and MARC-IV will also work with the **University of Idaho** to identify information gaps and market barriers. Programs will be developed and, if possible, implemented to address gaps and barriers. Examples of coordinated activity may include the development of fact sheets or white papers to address consumer concerns, summation of testing or research to provide detailed information for a targeted user group, facilitation of a working group to address a technical issue, or as in-depth as handling guidelines for blenders.

Objective 5. Fuel quality education and consumer confidence

Previous to the National Biodiesel Education Program, the **National Biodiesel Board** established the National Biodiesel Accreditation Commission. This commission has developed a national fuel quality program called BQ-9000, a ‘Good Housekeeping’ Seal of Approval,TM for biodiesel production companies and biodiesel blend distributors. The program is a unique combination of the ASTM standards for biodiesel, ASTM D 6751, and a quality systems program that includes storage, sampling, testing, blending, shipping, distribution, and fuel management practices. A certification logo is available to distributors who meet the requirements of BQ-9000.



Success for the program will be dependent upon producers and marketers going through the certification process. During the first year of the education program, one workshop and one BQ-9000 specific session were held in order to educate industry participants on program requirements. The workshop, which was co-sponsored by the USDA Education Program and NBB, was held prior to the Biodiesel Conference & Expo in Palm Springs, CA. Attracting international participation, the workshop was successful at increasing the awareness about the BQ-9000 fuel quality program. In addition, a session was held as part of the Conference technical track to solicit input regarding program requirements. It was originally planned to utilize some USDA funds for a fuel quality survey, however NBB was successful at leveraging other funding sources for both a B100 and B20 fuel quality survey.

Planned Activity for Year 2:

Funding from USDA will be used to prepare and distribute BQ-9000 promotional materials and to educate consumers, biodiesel production companies, petroleum/biodiesel distributions and OEMs on the need for and benefits of high fuel quality. Education activities will primarily occur in the form of two workshops. One workshop will again be held in conjunction with the Biodiesel Conference & Expo. The second location has yet to be determined. Furthermore, users will be encouraged to ‘look for the BQ-9000 label’ when purchasing their biodiesel blends through other education material developed under this program.

Objective 6. Evaluate and document industry and program progress

NBB uses a systems approach to implement all of its programs using a methodology called “Results-Oriented Management” or ROM. The NBB management team is a multi-disciplined team of experts in their respective fields including management, engineering, technical research, economics, regulatory law, communications, instructional design, and information technology.

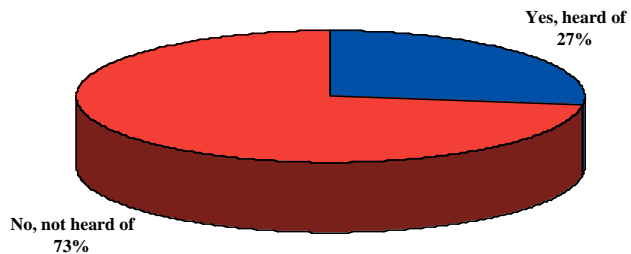
As indicated in the original proposal to USDA, in order to evaluate results of this program NBB must first take an accurate pulse of the public perception of biodiesel in various areas in order to demonstrate the project’s success. Results of the first year survey efforts will help NBB target messages to different audiences by identifying what motivates consumers and which messages will resonate with them. The first year of the program involved significant industry benchmarking. Specifically, NBB conducted the following:

- National Omnibus Survey—Public Opinion Research
- Targeted Survey of Environmental Leaders/Organizations
- Targeted Survey of Health Care Leaders/Organizations
- Targeted Survey of Trucking Company Executives
- Industry Summary of Biodiesel Awareness, Sales, and Availability

Results from these efforts enable NBB and USDA to benchmark awareness and biodiesel acceptance prior to the USDA program activities. The targeted surveys are underway and will be completed prior to the end of the fiscal year. In June 2004 the national omnibus survey was conducted by The Mahe Group and their partners. More than 1,000 online interviews were conducted to determine perceptions by U.S. consumers. The sampling error was +/- 3% with a confidence level of 95%.

Results of the national survey indicate that, while biodiesel is not a well-known product among U.S. consumers today, it clearly has a potential to be well received, particularly when consumers learn more about the benefits and features of the product.

As of today, only 27% of U.S. consumers surveyed have heard of biodiesel, and only 9% are very or somewhat familiar with the product. By comparison, nearly nine-in-ten consumers have heard of ethanol (88%), and 42% are very or somewhat familiar with that product.



Most consumers today do not have enough information to know whether or not a series of statements about the benefits of biodiesel are true. Specifically, between one-third and one-fourth of consumers found statements about the reduced dependence on foreign oil, health benefits, renewable resource benefits and economic benefits to be true, while more than 60% of consumers did not have enough information to decide if these statements were true.

Yet after reading a brief description of biodiesel and its benefits, more than three-fourths of consumers surveyed say they would be very or somewhat likely to use the product. This indicates the significance of increased education efforts.

After this brief introduction to biodiesel, consumers were then asked to rank four benefits of the fuel, from most to least important. The top two most important benefits that emerged were reduced

dependence on foreign oil and health benefits. Environmental benefits were considered moderately important, while the economic benefits were considered the least important of the four tested.

Other indications that biodiesel may be well received by consumers, was their reported willingness to pay more for the product, after learning about some of its benefits. Specifically, 61% say they would pay more for the product, though most consumers are in the 1-4 cents more per gallon (28%) or 5-10 cents more per gallon (22%) range.

NBB also developed an industry summary that addressed the following major evaluation areas:

1. Availability
 - a. Including terminals and distributors
2. Awareness
 - a. Market survey and consumer awareness results
3. Usage
 - a. Total and individual market segment usage estimates
4. Endorsements
 - a. OEMs and consumer groups endorsements

This document has been made available to USDA and will be updated annually.

Planned Activity for Year 2:

Planned activity in year 2 will be scaled back compared to the first year. Funding from USDA will be utilized to update the industry summary document and to conduct one additional targeted decision maker survey. **The Mahe Group** will again assist with survey efforts.