

Contact: Andy Baumert

GROW IOWA VALUES FUND PROPOSALS

Action Requested: Consider approval of Regent universities' FY 2009 Grow Iowa Values Fund (GIVF) proposals.

Executive Summary: The 2005 Iowa General Assembly appropriated \$5 million annually through FY 2015 to the Board of Regents through the GIVF administered by the Iowa Department of Economic Development. The funds are for *"capacity-building infrastructure in areas related to technology commercialization, entrepreneurship, and business development for the purposes of state economic development."* Each of the universities has submitted a proposal for how it will direct a share of these appropriations in FY 2009 which is the fourth year of funding under the program. Appropriations require a one-to-one funding match by the universities. The FY 2009 proposals from the universities total \$4.8 million. An amount of \$200,000 is reserved for the Board to allocate to research and commercialization projects submitted by private colleges and universities.

The \$4.8 million in GIVF funding will be matched by a total of \$5,134,514 from a variety of sources including: private companies participating in projects, university matching funds, client and testing fees, and non-state research grants.

The universities' proposals are summarized in this memo. Complete proposals, including information on matching fund sources and evaluation methods, are included in the Regent Exhibit Book.

Iowa State University: \$1.925 million

Iowa State University proposes to allocate FY 2009 GIVF funds in a manner consistent with that used in FY 2008 in which funds were focused in two primary areas: 1) Infrastructure and Entrepreneurial Culture and 2) Commercialization Competitive Grants. One significant proposed change is an allocation of \$150,000 to support a new entrepreneurial training program.

Infrastructure and Entrepreneurial Culture (\$750,000)

ISU proposes to allocate \$750,000 to further develop the infrastructure that will support the staff and activity required to grow, improve and sustain the technology transfer/commercialization efforts at ISU. Funds will be allocated to the following units:

- Pappajohn Center for Entrepreneurship: \$200,000 to provide private sector consultants and market research for startup companies and to provide staff to assist entrepreneurial efforts by faculty and students.
- ISU Research Park: \$200,000 to provide startup companies with a reduced-cost environment, to market opportunities at ISU to existing technology companies nationwide, and to actively assist growth by current tenant companies.
- Institute for Physical Research and Technology: \$100,000 to provide staff to identify developing technologies with commercial potential.
- Vice-Provost for Research: \$100,000 to the Vice Provost for Research office to fund opportunistic commercialization projects during the fiscal year, to fund a project related to the Battelle Advanced Food and Feed platform, to promote collaborative relationships

between ISU and Iowa companies, and to coordinate collection of commercialization performance data.

- Post Doctoral Entrepreneurial Program: \$150,000 to support a year-long, immersive program that takes science and engineering students who have just received their PhD degrees and trains them in entrepreneurship. An expectation of the program is that the awardees will start a company during the year of training.

Commercialization Competitive Grants Program (\$1,015,721)

ISU proposes to allocate \$1.015 million to build and sustain a larger pipeline of projects utilizing ISU-developed technology. A Request for Proposals process was used campus-wide to obtain proposals for the development of innovations with commercial potential and to support the expansion of existing companies which will contribute significantly to the Iowa economy.

Ten projects involving Iowa companies have been selected from among those submitted under the RFP and are proposed to be funded:

-\$125,968 to further develop technology to convert carbohydrate-based feed stocks like fructose or sorbitol to hexanediol (HDO), an industrial chemical used in producing polymers. In conjunction with Muscatine-based Grain Processing Corporation (GPC), researchers will explore use of a catalyst developed at ISU to significantly reduce the cost of producing HDO by using a renewable feedstock. If the technology can capture even 10% of the current market for HDO, it would be worth approximately \$32 million. In addition to ISU cost share of \$69,988, GPC has committed to cost share of \$60,000.

-\$85,000 to develop and commercialize bio-based resins for manufacture of Pella windows. The resins, produced from corn, soy and linseed oils, are much cheaper than petroleum-based resins, are more readily biodegradable, are derived from renewable sources and are expected to enhance other properties such as sound-damping. The objectives of the study are to develop specific formulations and processing conditions for what are called pultruded window frames. The goal is to have a prototype Pella window with equal or superior properties and economics compared to current polyester systems. The prototype is planned to be debuted in ISU's Solar Decathlon Solar House in the fall of 2009 on the National Mall in Washington, DC. Pella is a firm with global distribution and predicts that the largest growth in the U.S. window market will be in polymer-based frames. In addition to \$72,975 in ISU cost share, Pella has committed to cost share of \$88,234.

-\$135,000 to test for anti-cancer properties of a vitamin D-derived product. Researchers have isolated a plant-derived form of vitamin D which has been tested on prostate cancer cells in vitro and has been shown to inhibit proliferation of the tumor cells. The funding would be used to test for cancer-inhibiting properties in live animals. The two researchers have formed a company called Glycomyr to commercialize the technology. In addition to \$76,950 in ISU cost share, Glycomyr, based in Ames, has committed to \$66,000 in cost share and Heartland Assays, also of Ames, has committed to cost share of \$95,000.

-\$112,000 for development of the next generation of vortex flow meters for engines. In collaboration with Cedar Rapids-based J-Tec Associates, Inc., the researchers plan to develop a vortex flow meter that will allow measurement of emission characteristics in engines burning biofuels such as E-85 and biodiesel. The increased use of biofuels will require new technology to allow engine manufacturers to meet environmental regulatory and performance standards. J-Tec Associates, in business since 1968, believes the development of a new product line based on this technology will result in \$12 million in annual sales. In addition to ISU cost-share of \$84,056, J-Tec Associates has committed to cost share of \$45,000.

-\$84,357 for work with several industrial partners to develop and commercialize novel corn- and soy-based products including hay bale wrapping material, pots for plants, dry wall, construction panels and lubrication sticks. The project is a continuation of current research, also GIVF-funded, with several companies. Vermeer Corporation of Pella, Creative Composites of Ankeny, Pella

Corporation of Pella, Soyworks Corporation of Woodridge, Illinois, and Global Proteins Corporation of Elizabeth City, North Carolina have committed \$111,000 in cash and in-kind cost share to the project in addition to \$22,000 in cost share from ISU.

-\$27,012 to develop a low-temperature plasma treatment to modify a seed surface for improved yields and reduced cost. Seed treatment is generally important to obtain healthy seedlings. In conjunction with Plasmer Seed, LLC of Ames, the researchers intend to identify the best plasma treatment for specific types of seeds. If successful, the technology is expected to result in intellectual property and commercialization by Plasmer. The seed coating market is estimated to total \$1.5 billion annually with annual growth of 10 to 12 percent. In addition to \$8,737 in ISU cost share, Plasmer Seed has committed to cost share of \$20,000.

-\$71,481 to advance development of integrated DNA technologies in conjunction with an Ames startup company. The goal is development of diagnostic tools, vaccines and biological therapies based on carbohydrates. The researcher has created a method for the synthesis of complex carbohydrate molecules that can reduce the time of development from 6-12 months down to 24 hours and reduces development cost by nearly ten-fold. The researcher has formed a startup company called LuCella, based in the Carver Co-Laboratory at ISU. The total U.S. research biochemicals market is estimated at \$1.6 billion annually and LuCella believes it is possible to grow sales above \$20 million. In addition to ISU cost share of \$47,360, LuCella has committed to cost share of \$41,600.

-\$184,407 for development and commercialization of a unique atomization process for efficiently producing high quality titanium alloy powder. The funding would be used for final fabrication of a prototype atomizer. Titanium alloys have many desirable qualities but have been difficult to use in producing castings. The researchers have developed a unique atomization process that produces an alloy powder much better suited for various manufacturing processes. The researchers intend to form a startup company called Iowa Powder Atomization Technologies (IPAT) and believe the process can produce the powder at 50% to 60% below current market cost. In addition to \$165,075 in ISU cost share, and \$25,000 in cost share from the Institute for Physical Research and Technology, IPAT has committed to cost share of \$6,000.

-\$35,287 to develop a method of using rubber from scrap tires to absorb hydrogen sulfide from biogas. Currently, landfills and other waste storage and processing facilities use products like activated carbon to scrub hydrogen sulfide from the biogas produced by the waste. The researchers and Envirotech Systems, Inc. of Lawton, Iowa intend to demonstrate that tire derived rubber particles are a more cost-efficient and effective sorbent for hydrogen sulfide, making biogas from waste a more viable energy source and would represent an alternative use for the millions of scrap tires disposed of each year. Envirotech Systems, Inc. has committed to \$35,287 in cost share.

-\$154,639 to accelerate the commercialization of a process to convert waste plastic, crude oil sludge and tar-sand into low-sulfur diesel fuel and other products. The researchers and Ames-based Innovative Energy Solutions, Inc. (IES) have developed a method of high-temperature cracking/pyrolysis with a proprietary catalyst to produce a variety of high-value fuels and base oils from plastic, crude oil sludge and tar sand. From lab-scale trials, one kilogram of waste plastic was converted to one liter of high-grade diesel. In the U.S., more than 30 million tons of waste plastic are generated annually with only 5% being recycled. Using this process, the waste plastic could be converted into 7.35 billion gallons of diesel fuel and 4.8 billion pounds of LP gas. The funding would investigate the challenges of upscaling the process for commercial use. In addition to ISU cost share of \$16,708, IES has committed to cost share of \$193,265.

-\$159,279 to be reserved for grants funding qualified projects that arise during the year.

University of Iowa: \$1.925 million

The University of Iowa proposes to allocate funding for development of intellectual property, commercialization and job creation. The funds will be matched on a 1:1 basis for the following purposes:

- Accelerate commercialization of SUI intellectual property through licensing and formation of spin-out companies.
- Build effective partnerships for economic development between private companies and the University.
- Partner with private companies and state and regional economic development initiatives and venture capitalists to stimulate development and relocation of successful ventures to Iowa.

In the past three years, GIVF funds have been used by SUI to build necessary infrastructure, including:

- A new business incubator, called the BioVentures Center, which is scheduled to open in November 2008. The Center is a joint venture with the Ryan Companies and the City of Coralville.
- Creation of the IOWA Centers for Enterprise which provides assistance to startups and offers a comprehensive program promoting economic development and technology transfer to new and existing Iowa businesses.
- Creation of a fermentation facility within the Center for Biocatalysis and Bioprocessing for production of clinical grade materials for Phase I human trials. The facility adds value by making available contract services for purification of proteins for formulation into human dosages.
- Expansion of the John Pappajohn entrepreneurial outreach programs.
- Creation and development of new spin-out companies including Optherion (treatment for macular degeneration), ASL Analytics (non-invasive blood glucose monitor), Terpenoid Therapeutics (novel cancer therapies), and Exemplar Genetics (porcine models of human disease).

The University believes it is now in a position to begin to shift a portion of GIVF funds toward investment in newer companies for commercialization of University technology. The proposed plan is to be developed across two phases. Phase I is designed to directly facilitate private sector partnerships and the creation of new companies and jobs. Phase II is designed to address middle-to-long term commitments needed to promote and sustain high tech entrepreneurship.

Phase I: ISTART-Iowa Start-up and Entrepreneurship Fund: \$1,775,000

These funds will be used to support commercialization based on University intellectual property or intellectual property of Iowa companies seeking a partnership with the University. Partnerships that promise job or business initiation and expansion in Iowa will be given priority. Examples of qualifying projects will include:

- Private sector collaborations for proof of concept leading to commercialization.
- Gap funding for early stage technologies or start-ups based on University intellectual property.
- Engagement of Entrepreneurs-in-Residence.
- Development of start-up companies.
- Fit out of new incubator space needed to create and expand new businesses directly related to commercializing intellectual property.
- Expansion of services at the Pappajohn Entrepreneurial Center.
- Personnel support for the IOWA Centers for Enterprise.

Phase II: IGROW-Iowa Growth and Development Fund: \$150,000

IGROW funds are designed to address middle to long-term commitments needed to promote high tech entrepreneurship in the region and build new networks of technical, financial and business capabilities that will sustain the growth of new companies. Examples of qualifying projects include recruitment of new entrepreneurial faculty who will also be relocating or creating new bioscience companies in Iowa, as well as infrastructure support for entrepreneurial research activities.

Metrics

The University uses the following metrics to evaluate the effectiveness of funding provided to GIVF projects:

- Number of R&D agreements with Iowa companies
- Company matching funds provided
- University matching funds provided
- Number of license or option agreements
- Number of new companies formed and jobs created
- Company revenue created
- Intellectual property disclosed, patented and licensed
- Increase in taxable company revenue
- Earnings of research park and incubator companies
- Number of companies and startups in the research park and incubator
- Number of collaborations with Iowa-based industries
- Number of Small Business Innovation Research and Small Business Technology Transfer

grants

Matching Funds

GIVF funds will be matched on a 1:1 basis from the following sources:

- Research funding focused on applied research with intellectual property potential
- Licensing revenues
- Industry funding
- Developer funding
- Land leases
- City of Coralville Tax Increment Financing
- Research Park leases

University of Northern Iowa: \$950,000

The University of Northern Iowa proposes to allocate \$950,000 in five project areas. Each project has achieved substantial outcomes and leveraged private and federal support. Specific details are included for the following five projects:

- Technology transfer and business incubation,
- Rural entrepreneurship,
- Market research,
- Regional development and
- National Ag-Based Lubricants Center.

GIVF funds will be matched on a 1:1 basis.

Project 1: Technology Transfer and Business Incubation \$320,000

UNI continues to advance intellectual property evaluation and protection, commercialization of campus innovations through licensing/strategic partnerships, and new business development. A number of the proposed services directly impact these efforts, including the Innovation Incubator and the UNI MyEntreNet initiative. Working in tandem, these efforts will result in strong, broad based linkages between the University and the greater Iowa business community.

Specific priorities for FY 09:

Area 1 - Business Incubation: UNI opened the new Innovation Incubator with a goal of achieving full occupancy by the end of the 2009 fiscal year with a mix of faculty spin-off operations, new start-ups and targeted late-stage research initiatives. Incubation space will be expanded into the unfinished portion of the BCS Building in the fall of 2008 to create opportunities for these new ventures to grow and stabilize before moving to private commercial space. Additional student businesses will be recruited during the fall semester to bring the Student Business Incubator to full occupancy, as well.

Area 2 - Intellectual Property Development: Through the collaborative assistance efforts of the Office of Intellectual Property and the Office of Sponsored Programs, UNI faculty and staff have generated an average of 18 new, marketable inventions per year over the past three years; adding to this, 14 more inventions were recorded during FY08. The estimated economic benefit to Iowa businesses is approximately \$6 million per year, with that amount expected to increase significantly as new licensing agreements, currently under negotiation, are signed.

Matching Funds: Federal Funds from the Department of Energy and the Small Business Administration, UNI Research Foundation and program income

Results/Metrics: The overarching target for the Innovation Incubator and Student Business Incubator is to achieve full occupancy by the end of the fiscal year. At least 15 intellectual property disclosures will be received with 3-4 licensing agreements executed under patent or trade-secret provisions and 4-5 new late-stage research projects awarded to UNI faculty.

Project 2: Rural Entrepreneurship ♦ \$200,000

MyEntreNet is an entrepreneurship development system that serves entrepreneurs by linking them with advanced technical and marketing assistance (in part through technology) and

develops community-based support networks and financial resources to help entrepreneurs create, successfully operate and expand businesses in Iowa. Through a competitive selection process, MyEntreNet regions also receive local capacity building assistance to support entrepreneurial development. A total of fifteen Iowa counties have launched MyEntreNet systems since 2003.

Specific priorities for FY 09:

Area 1 - Working with service provider partners, approximately 18-20 regional networking events, called EntreBash, will be held in FY 2008 statewide: EntreBash events will be scheduled in each MyEntreNet region multiple times annually, in order to identify, recruit and perform intake with underserved entrepreneurs. At these events, pre-venture and existing rural business owners will be individually surveyed by an Intake Team to identify their specific capital and technical assistance needs. Results from these discussions with local entrepreneurs will be shared with the local E-Team and statewide service provider partners in order to develop a master calendar of events and services to be delivered to regional entrepreneurs on a semi-annual basis.

Area 2 - Financial support for MyEntreNet regions to fund locally-customized technical assistance: Each local MyEntreNet system will receive funds, ranging from \$2,500 to \$10,000 in matching grants, to support implementation of customized technical assistance and training in their respective regions. These funds will seed the creation of new types of assistance, provided by existing statewide service providers and local professionals, to entrepreneurs in these underserved areas. Entrepreneurs in attendance at EntreBash events will also receive a \$50 grant certificate good toward the purchase of any event published in the MyEntreNet region's Master Calendar for entrepreneurs.

Area 3 - Two new counties in Iowa, one in an urban neighborhood, will launch MyEntreNet entrepreneurship development systems in 2008-09: A competitive call for communities will be announced in the fall of 2008 to select two new MyEntreNet regions.

Area 4 - UNI will lead a consortium of 15 service provider partners in the delivery of the second annual EntreFest, a statewide entrepreneurship conference for small business: Building upon the success of the February 2008 EntreFest! conference in Cedar Falls, the 2009 EntreFest! will be hosted the first week of March 2009 in Coralville, Iowa.

Area 5 - The web resources at www.myentre.net will continue to be improved, based upon feedback from entrepreneurs about their ongoing online needs.

Matching Funds: Regional Business Center client fees and Federal funds (SBA)

Results/Metrics: By the end of the 2008 fiscal year, 1,200 entrepreneurs will have attended a regional EntreBash! in the state of Iowa, with 400 of these individuals continuing on to attend one or more events supported by a service provider partner participating in the MyEntreNet master calendar. These entrepreneurs will generate 100 new or expanded businesses and create 200-250 new full time jobs. 250 entrepreneurs representing 50 Iowa counties will attend the 2nd annual EntreFest! statewide conference for small business in March of 2009. Registration into MyEntreNet's online community at www.myentre.net will grow by 20 percent to 2,400 participants.

Project 3: Market Research ♦ \$100,000

The purpose of devoting GIVF investment towards market research projects helps to expand and stimulate economic growth across Iowa by providing both new and existing businesses with “market intelligence”. Start-up businesses, existing businesses, communities, and business-related organizations all need accurate information in order to make sound decisions. Strategic Marketing Services (SMS) helps provide these entities with this needed intelligence by gathering sufficient data on the organization’s target market.

Specific priorities for FY 09:

Area 1 - Market research projects for Iowa companies: This area of market research activity will receive priority for FY 09 funding. Market research project costs will be split equally between the client and a GIVF investment, with maximum GIVF support of \$10,000 per project. This approach allows SMS to leverage additional funding for these projects, and also demonstrates the client’s willingness to utilize the information that is obtained towards growing their business. Priority will be given to businesses in the state’s target industry clusters.

Area 2 - Low-cost secondary market research to support Economic Gardening: "Economic gardening" is a concerted effort to grow jobs through entrepreneurial activity as opposed to recruiting jobs from outside of a community. This movement has recently gained attention nationwide, including in Iowa. SMS will provide low-cost, secondary market research services to entrepreneurs/small businesses across the state. Quality secondary research resources are often too expensive for small businesses to obtain and fully utilize. Using trained student employees, under the supervision of a professional market researcher, SMS is able to offer secondary research at a more affordable price. SMS staff will work in cooperation with existing economic development organizations and business service providers (i.e., Small Business Development Centers, community economic development organizations, etc.) to conduct secondary research on behalf of these organizations’ clients.

Area 3 - Market research projects for Iowa associations and local governments: This area of activity will be devoted to communities/organizations seeking market research to enable growth in the economic base of the community or the State.

Area 4 - Market research consultations, plans, and assessments: SMS will consult with Iowa businesses, entrepreneurs, statewide associations and local governments to assess their market research needs. Where appropriate, market research plans will be developed.

Area 5 - Market research assistance to UNI’s technology transfer program: Phase One projects in this area will provide researchers with initial market screening and identification of potential competitors. The UNI Research Foundation (UNIRF) will support 50% of Phase One research and GIVF will support 50%.

Area 6 - Marketing and education: Many Iowa businesses, city governments and organizations are not familiar with market research, i.e., what it is, benefits to be realized, and how it can help grow their business. GIVF funds will be used to develop and implement an educational marketing/public relations effort to including articles, case studies, newsletter contributions, and a postcard mailing campaign.

Results / Metrics:

Areas 1 & 3: SMS will complete 5-8 market research projects as described in Areas 1 & 3. Measurement will be based on new/increased sales, new sales leads, new product introductions, product modifications, customer satisfaction measurements, new jobs created, workforce

development, physical plant expansions, new market penetration, market expansion, job retention, and focused marketing/operations initiatives.

Areas 2, 4 & 5: 30 consultations, assessments, and market research plans, economic gardening projects or Phase One research projects will be completed.

Area 6: Development and implementation of a public relations/marketing campaign. Participate in or publish at least eight public relations activities/articles across the state. Implement a direct mail campaign consisting of postcards/promotional letters. Develop a poster to be displayed by service providers throughout Iowa.

Project 4: Regional Development ♦ \$130,000

With the shared purpose of expanding and stimulating economic growth across the state of Iowa, the Institute for Decision Making (IDM) continues to implement regional development assistance programs that build capacity regionally and locally to sustain Iowa's regional economies over the long term.

Specific priorities for FY 09:

Area 1 - Sustainability of regional work and strengthening the collaborative partners: Over the last three years at least nine rural regions have built the collaborative trust and the capacity to be ready to move to the next level, as a direct result of GIVF-funded assistance. IDM proposes helping to sustain and advance these regions by providing hands on project management and professional expertise for those regions without full-time staffing. Focus will be on implementation of programs that the regional groups have identified; be it marketing, existing industry, internal communications, alumni recruitment, etc. IDM staff will act as a quasi-staff member to two rural regions, Northeast Iowa Business Network and Off-Shore Iowa.

Area 2 - Layoff Aversion and Regional Response to Mass Layoffs: Amid advancing economic strides come economic setbacks, including losses or downsizing of major employers. IDM's hands-on service will help regions prepare for such crisis events. IDM proposes creating a practical community workforce process that assists communities and regions in the implementation of strategies to avert mass layoffs, where feasible, and proactively respond when a layoff or closing occurs. Further, IDM intends to develop the tools so that when needed, IDM and others can quickly document the skilled workers who have been laid-off, and all other available regional workforce characteristics, as a marketable economic development asset. This process will complement the services to individual workers provided by Iowa Workforce Development (IWD). IDM expects to collaborate with IWD and their Rapid Response Team, IDED, and utilities on these efforts.

Area 3 - Linkages Across Regions in Iowa: IDM staff has determined that there may be opportunities for linking resources and assets across regions in such areas as marketing, workforce, and clustering. IDM will explore these potential opportunities, and if feasible, develop and report on one or more pilot projects.

Area 4 - Incorporating Rural Innovation Grants and Regional Development: Two regions in Iowa have recently received Rural Innovation Grants (RIGs) from the US Department of Labor to incorporate more extensive workforce assessments into their regional development initiatives. IDM intends to participate in at least two RIGs to help these regions assess the current and future

workforce needs based on the current and future economic base of the region and across multiple regions.

Matching Funds: Program income, workforce development grants and Heartland EDC.

Results/Metrics: IDM will solicit and report testimonials, numbers of volunteers (counted only at the county level), local dollars and in-kind investments in regional economic development. IDM will also report the number of regions developing marketing and operating protocols, and the number of modules or components developed and communities/workers assisted as part of the Layoff Aversion and Mass Layoff Program. Pilot testing of parts of this program will likely be part of a subsequent GIVF proposal.

National Ag-Based Lubricants (NABL) Center - \$200,000

The National Ag-Based Lubricants Center serves the emerging bio-products industry by providing reliable, specialized research and testing services. As one of the best-equipped biolubricant facilities in the US, the NABL Center has secured more than \$5M in federal equipment funding in support of UNI's effort to develop and commercialize biobased lubricant products, while helping to aid the growth of the biobased lubricants industry.

Specific priorities for FY 09:

Area 1 - Biodiesel Testing Services: In the past year, the Center has added biodiesel testing equipment to its extensive lubricants testing capabilities, and achieved ISO 17025 certification for its testing services. During FY09, NABL will utilize this added capacity to provide ASTM D6751 biodiesel testing services by offering this test series to biofuels industry stakeholders across the State. This series will certify their respective biodiesel samples as meeting the ASTM and industry requirements for biodiesel quality. NABL testing laboratories will be maintained, and necessary materials, supplies, and equipment upgrades purchased, in order to offer ISO certified biodiesel and biolubricant testing services.

Area 2 – National Standards Setting Activities: NABL will continue to participate in round robins, ASTM Laboratory Crosschecks, and other proficiency testing programs as needed to ascertain the laboratory's accuracy, as well as contribute to improved industry test standardization for biobased products. Involvement and participation in industry organizations such as ASTM (American Society for Testing and Materials), STLE (Society of Tribologists and Lubrication Engineers), NLGI (National Lubricating Greases Institute), SAE (Society of Automotive Engineers), NFPA (National Fluid Power Association), and AOCS (American Oil Chemists Society) is on-going and will continue to ensure that biobased products are tested and evaluated based on standards that are compatible and not based primarily on petroleum oil performance standards. This will also help to ensure that new biobased products meet the necessary performance certifications before being released into the marketplace.

Area 3 - Bioproducts Research: NABL's expertise in the desirable properties of vegetable oils for various industrial applications, developed by more than 17 years of product formulation experience, lends the necessary insight to identify characteristics and traits desirable for the formulation of improved lubricant products and higher conversion rates in biofuels processing. NABL will work with Iowa State University to evaluate various oil seeds for their beneficial traits, and investigate methods of aggregating preferred characteristics into an isolated vegetable oil, or derivative thereof. Such products will help to create the next generation of biolubricants or biofuels more economically and with less processing expense.

Matching Funds: Federal funding from US Department of Energy, USDA, and testing fees.

Results/Metrics:

NABL will provide fee-based testing services to the biofuels and biolubricants industries during FY 09. Given NABL's recent ISO accreditation, it is anticipated that the Center's testing services will realize increased demand over prior years, thus NABL expects to provide clients with at least 125 tests this year. A tangible criterion for testing services will be the amount income generated from testing and NABL expects to double testing income in FY 09.