



## Independence Bio Products

FOR IMMEDIATE RELEASE

CONTACT: Brad Lambert  
Independence Bio-Products  
[Brad.lambert@independencebioproducts.com](mailto:Brad.lambert@independencebioproducts.com)  
Tel: (614) 789-1764

DATE: May 10, 2011

HEADLINE: Aviation Fuel from Ohio Grown Algae Tested

**Dublin, Ohio** – [Independence Bio-Products](#) (IBP) of Dublin, Ohio has produced algae oil, which has been converted to jet fuel and then tested by the Air Force Research Laboratory at Wright Patterson Air Force Base. The algae was grown in open ponds in Ohio and harvested with IBP's patent pending system. This milestone is a part of a federally funded project to examine Algae to Fuel (ATF) processing strategies. IBP founder and President Ron Erd stated that testing of the algae-derived fuel sample by the Air Force Research Laboratory has confirmed that the composition of the fuel derived from the Ohio-grown algae is similar to fuel derived from other plant oils such as soybeans, Jatropha or camelina—which are already being investigated as jet fuel precursors.

Since June 2009 the Algae to Fuel (ATF) project has been exploring the best strategy for creating, cultivating, and expanding an “algaculture” industry for Ohio. This effort has been divided into examination of three main areas: 1) selection of algae suitable for optimizing oil production based on climate factors; 2) development of cultivation systems (growing locations, harvesting, dewatering, and separation techniques); and 3) cultivation strategy (algae harvesting, processing into value-added products, etc.). This public/private technical effort has been jointly led by three Ohio organizations: the Ohio Aerospace Institute (OAI) of Brook Park, the Edison Materials Technology Center (EMTEC) of Dayton, and the Center for Innovative Food Technology (CIFT) of Toledo along with several other industry and university collaborators, including IBP. The recent development by IBP represents the achievement of one goal of the federally funded initiative: to demonstrate the feasibility of deriving military fuel from Ohio-grown algae.

To achieve this most recent milestone IBP used proprietary technology to [cultivate the algae in raceway ponds](#) in Belmont County. Some of the ponds were heated using IBP's patent pending system demonstrating operations throughout the winter. The algae was subsequently separated from water and dried followed by extraction and purification of the algae oil. The algae oil was upgraded to fuel by Applied Research Associates (ARA) of Panama City, FL using a catalytic hydrothermolysis (CH) process to convert the plant triglycerides to pure hydrocarbons very similar to their petroleum counterparts. (View media coverage of the projects [here](#)).

Dr. Joseph Hager, Director Technology Transfer Programs, has been the technical lead for the ATF project at EMTEC. Hager stated, that the IBP effort and test results are significant for two major reasons: “1) The IBP development adds to the growing evidence that aviation fuel may be derived from domestically grown crops independent of foreign petroleum sources, and 2) Oil derived from Ohio-grown algae cultivated in open ponds demonstrates that this future fuel-producing crop may be sited in the harsher winter climates of the Midwest.” Due to the potential yield per acre of algae to fuel crops in comparison with other field crops, algae ponds are considered to be one of the most promising and economically viable agricultural methods of producing [biomass for fuel](#). The fact that algae ponds can be located on marginal land also permits biomass cultivation for fuel that does not compete with food production.

### **About Independence Bio-Products (IBP)**

[Independence Bio-Products](#) grows and harvests algae which produces bio-fuel and [animal feed](#). The company has successfully produced low cost algal bio-mass from its pilot facility, which was online for 18 months at a [coal burning power plant in Ohio](#). The company is also currently in development on a commercial project that will begin construction in 2011 in Texas.

### **About Edison Materials Technology Center (EMTEC)**

EMTEC is a full service, non-profit, technology commercialization partner with engineering, technical, and business expertise in cross-cutting technologies such as advanced energy; instruments, controls, and electronics; and advanced materials. EMTEC develops technology and business strategies, sponsors and manages collaborative technology projects and programs, and provides technology and business based assistance that facilitate the commercialization of new technology. Efficiently using its leveraging capabilities, EMTEC parlays existing capital and intellectual assets in Ohio to attract new investments, new products, and new technologies.

### **About Ohio Aerospace Institute (OAI)**

OAI is a unique collaboration among the industry, academic, and government sectors, fostering United States competitiveness through research, education, and the adaptation of technology. Founded in 1989, it has 22 major industrial partners, over 60 small businesses, 10 universities, and the Ohio Federal Aerospace Laboratories (NASA Glenn Research Center and the Air Force Research Laboratory at Wright-Patterson Air Force Base) in its membership. OAI has developed the expertise to manage complex projects. The Institute has served as facilitator, program manager, and contracting officer for more than 100 federally-funded programs valued at more than \$210 million.

### **About Center for Food Technologies (CIFT)**

Since 1995, the Center for Innovative Food Technology (CIFT), has provided technical solutions to companies involved in one of Ohio's largest and most economically significant industries – food production, processing, and packaging. CIFT's mission is to help members of the agribusiness sector to improve their competitive position through the development and adaptation of emerging technologies, industry best practices, and novel business approaches. CIFT operates through a number of business models, including corporate memberships, fee based services, and, in some cases, can locate or provide funding for projects.

### **About Air Force Research Laboratory (AFRL)**

The Air Force Research Laboratory, with headquarters at Wright-Patterson Air Force Base, Ohio, is a broad-spectrum laboratory that leads a worldwide partnership of government, industry and academic resources in the discovery, development and delivery of advanced technology. The lab manages a budget of nearly \$3.7 billion and employs approximately 1,400 military and 4,400 civilian personnel.

For additional information, please contact Brad Lambert at Independence Bio-Products by telephone at (614) 798-1764 or by email at [brad.lambert@independencebioproducts.com](mailto:brad.lambert@independencebioproducts.com).