

Institute for Sustainable Energy and the Environment continues algae research

For such tiny organisms, algae have received considerable attention at Ohio University in the last year—\$3 million worth in fact.

Since May 2010, Ohio University's Institute for Sustainable Energy and the Environment has been working to upgrade its facilities for algae research, thanks to a \$3 million grant awarded by the Third Frontier Wright Projects Program. The three-year grant will allow the institute, situated within the Russ College of Engineering, to purchase new equipment for exploring the potential of algae as an alternative fuel source.

With its potential for "recycling" carbon, algae shows promise as a biofuel on a national scale as well. Last year, the U.S. Department of Energy awarded three grants totaling \$24 million to three consortiums researching algae. The consortiums include universities, national labs and private industries across the country working to advance algae as an alternative to fossil fuels.

In addition to its own algae research, the Russ College will help facilitate the commercialization of Ohio companies



Loehr Professor of Mechanical Engineering David Bayless holds a sample of algae at Ohio University's Institute for Sustainable Energy and the Environment research facility.

also working to develop algae as a biofuel.

This partnership is part of the Wright Projects Program's mission to promote commercialization collaborations between Ohio universities, nonprofit research institutions and Ohio companies.

These collaborations are formed with the aim of furthering the commercialization of technologies that possess significant and defined market opportunities in addition to increasing the knowledge of the workforce in specific areas.

Toward this goal, the Wright Projects Program provides support for accessing capital equipment, which enhances commercialization in the short-term and contributes to the training and education of the workforce in the long-run.

Project leader and Ohio University Loehr Professor of Mechanical Engineering David Bayless says this is particularly important to Ohio. "What makes this interesting for Ohio is that this is the first time Third Frontier has awarded Wright Project funds for algae," said Bayless. "They understand there are serious companies working in algae research."

One of these companies is Algae Producers of America (APA). The Cleveland-based company manufactures diverse products and technologies developed from algae. APA grows, harvests and processes algae for use in biofuels, biolubricants, aquaculture, animal feed, specialty chemicals, as well as pharmaceutical products.

Ohio University's facilities will serve as a test center for the APA and other companies, helping them develop a path to commercialize algae production and distribution through refining equipment and research techniques.

Voinovich GIS team begins Gallia County parcel conversion

With the help of the Voinovich School's Geographic Information System (GIS) and Web Development teams, a new online parcel database will soon be available to Gallia County to facilitate economic development through improved analysis and decision-making tools. The team will be converting the county's paper-based parcel data to a digital GIS representation of county parcels (i.e., property divisions) to be catalogued on a new web site. Parcel data is currently housed at the Gallia County auditor's office, but will now be easily accessible to anyone with web access.

The Gallia County auditor and engineer's office approached the GIS and Web Development teams about the project in November 2010 after the team successfully completed a pilot parcel conversion for two Gallia townships the previous year.

Seth Montgomery, draftsman for the county engineer's office, said that partnering with the Voinovich School again was an easy decision, noting, "They did a remarkable job for

us [with the last project], so we wanted to give them the opportunity to do this project as well."

The conversion of parcel data to an online site will enable the creation of a database organizing all available information associated with the parcel, including each parcel's unique identification number. Additionally, the database will serve as a decision-support system, allowing for a range of GIS analyses of the data. For instance, visitors to the site will be able to examine property values and how they are distributed geographically across the county.

The Gallia conversion project fits into the goal of the Ohio Geographically Referenced Information Program (OGRIP) to create a statewide parcel ownership database, as not all Ohio counties currently have their parcel data digitally represented through a GIS database. OGRIP is a statewide entity that promotes GIS skills throughout the state to foster easily accessible geographic information.

With funding from Gallia County, the Voinovich School team plans to finish the conversion and online database by November 1, 2011.