Advanced Biofuels USA, a nonprofit educational organization, advocates for the adoption of advanced biofuels as an energy security, economic development, military flexibility and climate change solution.





## **Featured Stories**

"Cool Fuel"

Ohio State Preps Students for Biobased Jobs Biodiesel-Powered Wooden Boat

#### National Corn to Ethanol Research Center Offers Internships to Work on "Cool Fuel"

Multiple trade groups and ethanol companies offer internships, contests and events to get young people interested in biofuels. The recent addition of a young millenial to the National Corn to Ethanol Research Center staff at Southern Illinois University Edwardsville has given John Caupert, executive director of the NCERC a new perspective on the industry, he says. "What I've come to realize is the coolness of being involved in an industry that's creating jobs, that's good for the environment, that saves you money at the gas pump, and the list goes on and on," he says.

Besides conducting a marketing campaign about the variety of jobs available in the ethanol industry and the positive environmental benefits of ethanol, Caupert says NCERC has a successful internship program that attracts young people.

Whether the candidate is a student who can work 20 hours a week, someone looking for an internship, a student seeking graduate school research work or a college graduate seeking full-time employment, NCERC has an internship available, Caupert says. The center has between four and 10 spots available all the time.

The NCERC biofuels internships are funded through a \$10 million U.S. Department of Labor Trade Adjustment Assistance Community College and Career Training grant awarded in 2014. NCERC, which has a pilot plant, works with Southern Illinois University Edwardsville and its Lewis and Clark Community College on the Building Illinois Bioeconomy program. "What BIB does, is it takes this four-year university that we sit on at SIUE and our research center here at NCERC and it links up the activities here with four other community colleges across our state," says Courtney Breckenridge, BIB project manager. "The areas we focused on with the grant were bioprocess and biofuels and water management." READ MORE

#### Ohio State Leads Effort to Prep Students for Biobased Careers

Students at The Ohio State University and Central State University, a historically black university in Wilberforce, will soon benefit from a \$2.8 million grant designed to develop leaders for the bioeconomy industry in Ohio and nationwide.

Ohio State's College of Food, Agricultural, and Environmental Sciences (CFAES) is overseeing a \$2.8 million grant from the U.S. Department of Agriculture's National Institute of Food and Agriculture to create a consortium of 20 participating universities and industry partners.

The grant is part of a three-year project to train the future workforce in the bioeconomy industry. The Consortium for Advanced Bioeconomy Leadership Education (CABLE) will be led by Ohio State, said Dennis Hall, director of Ohio State's Ohio Bioproducts Innovation Center (OBIC). The center works to expedite the commercialization of bioproducts.

READ MORE

#### A Quest to Build an Eco-Friendly Passagemaker

For more than 15 years, the National Oceanographic and Atmospheric Administration (NOAA) has been researching and using B100 biodiesel in a number of its own fleets as part of thier Green Ships Initiative. NOAA's research has concluded that B100 biodiesel reduces unburned hydrocarbons by almost 80 percent in comparison with fossil diesel, assuming 100-percent recycled oil.

Sitting in its cluster of small-town waterfront buildings a few miles down the bay from Port Townsend, in quiet Port Hadlock, Washington, the Northwest School of Wooden Boatbuilding is the antithesis of the modern industrial boat factory. Foundedin 1981 by the legendary Northwest boatbuilder Bob Prothero, the school's purpose is to ensure that commercial and recreational wooden boatbuilding skills stay alive, and provide good jobs in the Pacific Northwest.

The school builds and restores inspiring vessels, creating superb marine craftspeople in the process. Carl Chamberlain, a skillful marine designer and a part-time instructor at the school, came to play a pivotal role in the design of our new boat. Master shipwright Richard Wilmore and his flotilla of talented and hardworking students—20 to 22 students each year—built the hull, house, and spars for what would in less than two enchanting years become Ama Natura, on the way to achieving Peter Wilcox's dream of a renewable-powered Passagemaker. READ MORE

## **Educational News and Resources**

#### Scroll down for:

- Teacher Resources
- News about and for Students and Schools (K-12)
- Scholarships, Fellowships, Internships in the US and around the world
- Competitions and Contests
- Executive or Professional Training
- Online Courses
- Featured Study Programs
- Green Jobs in the News

#### Use these links for more information about:

- Grants in the news
- Requests for Speakers, Posters, Presentations
- Latest News about College/University Research
- Webinars: <u>Upcoming</u> and <u>Archived</u>

#### **Teacher Resources**

Activities, Texts, Books, Services, Conferences, Summer Programs ...

#### The 'Cool' Fuel

September 26, 2017 – by Ann Bailey (Ethanol Producer Magazine) Multiple trade groups and ethanol companies offer internships, contests and events to get young people interested in biofuels. The next generation is drawn to ethanol's environmental and economic benefits. ...

#### Korean Students Learn to Make Biodiesel

September 26, 2017 – (Biofuels International) Fourth graders in Seoul, South Korea, have been learning how to make biodiesel at a bio-energy farm run by the Gangdong-gu office in Eastern Seoul, according to the Korea Times.

The workshop on renewable energy ...

#### Ohio State Leads Effort to Prep Students for Biobased Careers

September 25, 2017 – by Tracy Turner (Ohio State University) Students at The Ohio State University and Central State University, a historically black university in Wilberforce, will soon benefit from a \$2.8 million grant designed to develop leaders for ...

#### USDA National Institute of Food and Agriculture Announces \$21.1 Million to Grow the Bioeconomy

September 25, 2017 – (U.S. Department of Agriculture) The U.S. Department of Agriculture's (USDA) National Institute of Food and Agriculture (NIFA) today announced six grants totaling nearly \$21.1 million to support the development of new jet fuel, biobased products ...

Find more Teacher Resources here.

## News about and for Students and Schools (K-12)

## Red Rock Central High School Visits Highwater Ethanol

September 26, 2017 – (Minnesota Bio-Fuels Association) Eleven students from Red Rock Central High School traveled across town on Sept 15 to visit Highwater Ethanol to learn about renewable energy production.

The students, from grades 9 to 12, toured Highwater ...

#### Korean Students Learn to Make Biodiesel

September 26, 2017 – (Biofuels International) Fourth graders in Seoul, South Korea, have been learning how to make biodiesel at a bio-energy farm run by the Gangdong-gu office in Eastern Seoul, according to the Korea Times.

The workshop on renewable energy ...

#### YES! Fall Summits

September 13, 2017 – (Climate Generation) This fall, we're partnering again with a youth program in greater Minnesota, YES!(Youth Energy Summit). We're providing the climate change connection at their Fall Summits to help inform the projects students will be working ...

For more information about K-12 activities and teacher resources, click on these topics in the Categories list along the right margin of the <u>Advanced Biofuels USA website</u>. You can also find information on these topics on the <u>Teacher Resources</u>, <u>For Kids</u> and <u>Education Resources</u> pages on the site.

## Scholarships, Fellowships, Internships in the US and around the world

#### Renewable Fuels Foundation Offers February 2017 National Ethanol Conference Scholarship Program

The NEC Scholarship Program, sponsored by the Renewable Fuels Foundation and the Renewable Fuels Association, seeks to attract students of higher learning who wish to pursue a career related to ethanol.

#### National Corn to Ethanol Research Center Internship Program

The NCERC biofuels internships are funded through a \$10 million U.S. Department of Labor Trade Adjustment Assistance Community College and Career Training grant awarded in 2014. NCERC, which has a pilot plant, works with Southern Illinois University Edwardsville and its Lewis and Clark Community College on the Building Illinois Bioeconomy program. "What BIB does, is it takes this four-year university that we sit on at SIUE and our research center here at NCERC and it links up the activities here with four other community colleges across our state," says Courtney Breckenridge, BIB project manager. "The areas we focused on with the grant were bioprocess and biofuels and water management."

In addition to the technical jobs, NCERC recently added intern positions in business-oriented jobs. Up until about 2016, the internships were very STEM- oriented (science, technology, engineering and math). In 2017, they have added interns who have had degree fields such as accounting, public relations, etc.

#### Argonne Opens Call for Second Cohort of Chain Reaction Innovations

(U.S. Department of Energy/Newswise) Those who are selected for the Chain Reaction Innovations program will gain, among other things, access to Argonne National Laboratory's world-class R&D infrastructure and technical expertise.

#### Bioenergy Internship & Fellowship Opportunities

(U.S. Department of Energy) The U.S. Department of Energy's (DOE's) Bioenergy Technologies Office (BETO) regularly engages interns and fellows in the sciences, engineering, and liberal arts through a variety of internship and fellowship programs, including ...

#### Travel Grants for Students to Attend October 29-November 1, 2017 Algae Biomass Summit

(Algae Biomass Organization) The Algae Foundation has announced that it is offering \$500 travel grants for students to attend the 11th Annual Algae Biomass Summit in Salt Lake City, Utah, USA, from October 29 through ...

#### Education Internships at Idaho National Laboratory

(Idaho National Laboratory) As a Department of Energy facility, INL offers a diverse number of paid internship positions to high school, undergraduate and graduate level students. These internship opportunities enable students to collaborate with experienced ...

#### Association of Commonwealth Universities' Early Career Academic Grants

Early Career Academic Grants are open to early career academics employed by ACU member universities, enabling them to participate in a conference held in a Commonwealth country other than their own.

A minimum of 30 grants are on ...

#### Research Experience for Undergraduates Summer Program

(Center for Bioplastics and Biocomposites ) Starting with the summer of 2017, the Center for Bioplastics and Biocomposites (CB2), will be establishing a new Research Experience for Undergraduates (REU) site designed to provide undergraduate students ...

The REU program will continue for 3 years, i.e. Summer '17, Summer '18, and Summer '19.

#### Education Internships at Idaho National Laboratory

(Idaho National Laboratory) As a Department of Energy facility, INL offers a diverse number of paid internship positions to high school, undergraduate and graduate level students. These internship opportunities enable students to collaborate with experienced ...

#### NIFA Announces \$3.1 Million in Available Funding to Train the Next Generation of Agricultural Leaders

(U.S. Department of Agriculture) The U.S. Department of Agriculture's (USDA) National Institute of Food and Agriculture (NIFA) today announced the availability of \$3.1 million to train the next generation of agricultural leaders. This funding is ... NIFA grant website

#### Ciba Travel Awards in Green Chemistry

This annual green chemistry award sponsors the participation of students—from high school through graduate school—to attend an American Chemical Society (ACS) technical meeting, conference, or training program, having a significant green chemistry or sustainability component. ...

CBMNet Funding Announcements; Includes Undergraduate Vacation Scholarships Various deadlines (Crossing Biological Membranes Network) At CBMNet we foster collaborations between academia and industry to tackle research challenges in Industrial Biotechnology and Bioenergy (IBBE). We are working to understand the mechanisms by which substances are transported into, ...

The Young African Leaders Initiative (YALI) is a signature effort to invest in the next generation of African leaders. President Obama launched YALI in 2010 to support young African leaders as they spur growth and prosperity, strengthen democratic governance, and enhance peace and security across Africa.

The Mandela Washington Fellowship for Young African Leaders brings 500 dynamic young African leaders, ages 25-35, from across the continent to the United States for 6 weeks of leadership training and mentoring at twenty U.S. universities and colleges in three areas: business and entrepreneurship, civic engagement and public administration. In 2014, the Fellows were also hosted in Washington, D.C. for a three-day Presidential Summit featuring a Town Hall with President Obama. Following their in-depth academic coursework and leadership training, some Fellows remained in the United States to participate in eight-week professional internships with American NGOs, private companies, and governmental offices. Selected from nearly 50,000 applications, participants in the 2014 Mandela Washington Fellowship for Young African Leaders represent the extraordinary promise of an emerging generation of entrepreneurs, activists, and public officials. Upon returning to their home countries, the Fellows have access to professional development opportunities, mentoring, networking and training, and seed funding to support their ideas, businesses, and organizations.

For more information about <u>Scholarships and Fellowships</u>, click on those topics along the right margin of the <u>Advanced Biofuels USA website</u>.

## **Competitions, Contests**

Greenspeed Research Continues Quest for Speed Records with Renewable Fuels

(Greenspeed Research) From go-karts to trucks, Greenspeed Research provides opportunities for hands-on STEM adventures.

#### Global Biobased Business Competition (G-BiB)

(BE-Basic Foundation) The Global Biobased Business competition (G-BiB) is a competition for Master and PhD students from universities and universities of applied sciences in Germany, the Netherlands and Brazil. The objective of G-BiB is to stimulate entrepreneurship and innovation producing a biorenewable ...

For information about other competitions and contests, click here.

#### **Executive and Professional Training**

## Upcoming Ethanol Safety Seminars

The Renewable Fuel Association, in partnership with several industry entities, will be hosting a series of Ethanol Safety Seminars in 2017 at various locations throughout the United States. This course was developed to give first responders, hazmat teams, fuel transporters, and safety personnel an in-depth look at proper training techniques needed when responding to an ethanol-related emergency. The seminars are FREE to attend. The upcoming cities for 2017 Ethanol Safety Seminars are detailed below. To register, go to <a href="https://www.rfa.traincaster.com">www.rfa.traincaster.com</a>.

Online Ethanol Emergency Response Course

The Renewable Fuels Association is now offering an online version of its Ethanol Emergency Response course for first responders.

The two-hour training course, offered in partnership with the International Association of Fire Chiefs (IAFC) and TRANSCAER®, covers content from the "Training Guide to Ethanol Emergency Response," which has recently been updated.

This new online training is targeted towards emergency responders, but is open to anyone with interest in ethanol emergency response. Upon completion of the course, participants will have knowledge related to ethanol and ethanol-blended fuels, including the use, chemical and physical characteristics, transportation modes, transfer operations, basics of foam, suggested responder tactics and strategies and environmental issues.

#### TerraTech on VoiceAmerica Wednesdays at 6AM Pacific Time

TerraTech highlights new and sustainable products, companies and cutting-edge advances in the lab that are changing the way people dress, eat, drink, drive, build, package, protect, monitor, maintain and get well. Each week, TerraTech features ...

#### **Online Courses**

Climate Generation Offers a Suite of Grades 3-12 Curriculum Resources in the form of Curriculum Guides, as Well as Online Modules that Can Be Downloaded for Free.

(Climate Generation) Aligned with Minnesota state science, social studies and language arts standards, the Next Generation Science Standards and the climate and energy literacy principles, the curricula has been reviewed by scientists, professional educators, and ...

#### @EthanolRFA Offers Online #Ethanol Emergency Course

by Joanna Schroeder (Energy.AgWired.com) For first responders unable to attend in-person training courses, the Renewable Fuels Association (RFA) is now offering an online version of its Ethanol Emergency Response course. Offered in partnership with the ...

## **Featured Study Programs**

Do you have a special program related to biofuels? Let us know.

#### **Green Jobs**

This month's articles that feature information about jobs in advanced biofuels and the bioeconomy

#### Nigeria: Malaysian Bionas to Build \$2.5bn Bio-Fuel Factory in Kaduna State

September 27, 2017 – by Gwladys Johnson (Ecofin Agency) Malaysian firm Bionas plans to build plant where it will produce bio-fuel from Jatropha plant, in Zaria, Kaduna State.

"Jatropha plant could produce aviation fuel and sell at the same price with fossil ...

#### Any Renewable Energy Solution Requires Extracting the Full Value of Biomass

September 25, 2017 – by A.J. (Sandy) Marshall (Bioindustrial Innovation Canada/Canada Biomass) ... Today, climate change concerns are demanding an ever-increasing management of greenhouse gases. As a result, society is establishing a pricing on carbon through cap and trade and ...

#### Anti-Biofuel Ideologues Support the Oil Status Quo

September 20, 2017 – by Eric Sievers (Ethanol Europe/Euractiv) Anti-biofuel ideologues claim to be pro-climate and pro-development. But their positions, in fact, support the oil status quo, the concentration of power in the energy sector in the hands of ...

#### Scaling Up Without Wall Street

September 15, 2017 – by Daniel de Liege (Ethanol Producer Magazine) Alliance Bio-Products' chairman provides a detailed account of hurdles cleared and decisions made in the development of the company's cellulose-to-sugar process. — Securing funding for new technologies can ...

#### **Webinars**

For information about upcoming webinars, click here.

For archived webinars, click here. Often they are available for viewing online.

WEBINAR Series on Oil Release Planning, Prevention, Mitigation — Monthly Wednesdays August 16 – December 6, 2017 by Cindy Zimmerman (Energy.AgWired.com) The Renewable Fuels Foundation and Pinnacle Engineering are teaming up once again to sponsor a five-part webinar series for renewable fuel stakeholders about oil release planning, prevention and impact mitigation. The Renewable Fuels Foundation is the education ...

## Requests for Speakers, Posters, Presenters

For information about conferences seeking speakers, posters and presenters, click here.

#### **Grants**

For information about grants, click here.

#### Latest News about University/College Research

For articles about recent developments in university/college research, click here.

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- ---Conference Calendar and US Federal Regulations, Legislation, Litigation, Policy Subscribe

## Did We MISS Something??? Let us know.

## Also, what you would like to see in this Advanced Biofuels Education Newsletter?

If you have contributions, lesson plans, experiments or news you would like to share, please contact

Joanne Ivancic at info @ AdvancedBiofuelsUSA.org

or call 301-644-1395

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