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.





### Free Monthly Newsletters from Advanced Biofuels USA:

- ---Educational News and Resources newsletter with information about teacher resources, scholarships, fellowships, competitions and contests; and highlight articles about green jobs in the advanced biofuels world. Subscribe
- ---Conference Calendar and US Federal Regulations, Legislation, Litigation, Policy Subscribe

# **Featured Story**

Become a Science Coach to Help Advance Science Education in the US **DEADLINE: August 15, 2017** 



(American orientical oblicty). Are you looking to volunteer with a chemistry teacher in the classroom or behind the scenes this school year? Apply to be a Science Coach today! You'll have the opportunity to form a valuable relationship with a K-12 teacher and help enhance the science skills in students. Present demonstrations and mentor students, or work with the teachers directly to help plan experiments and incorporate chemistry into lessons. Prefer to aid more than one teacher and don't have time to visit a classroom? Consider the new Teams program where coaches answer questions, contribute to discussions, and provide chemistry advice for three teachers.

Chemistry professionals at all stages in their careers or in any chemistry-related field are encouraged to apply! Applications are open now until August 15. You may apply with a teacher you already have in mind, or we will try to match you with a teacher in your area.

American Association opportunity to form a valuable relationship with a teacher by of Chemistry Teachers

Science Coaches One-on-One

Science Coaches is a joint American Chemical Society (ACS) and American Association of Chemistry Teachers (AACT) educational outreach initiative dedicated to enhancing science skills in students across the United States. The program pairs chemists (coaches) with AACT R teacher members in elementary, middle, and high schools. Coaches accepted into the program will have the volunteering face-to-face (Science Coaches One-on-One) or through a digital forum (Science Coaches Teams).

or may apply individually and be matched with someone who is geographically nearby. Teachers and coaches are required to meet at least six times during the school year. Through their participation in Science Coaches One-on-One the teacher's school will receive a \$500 donation from ACS to enhance science education.

#### Science Coaches Teams

One coach is partnered with three AACT teacher members in a private, virtual forum to answer questions, contribute to discussions, and provide chemistry advice. Teachers and coaches are required to interact with the team at least twice a month. At this time, a school donation is unavailable to teachers in Science Coaches Teams. 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 ...

18th National Conference and Global Forum on Science, Policy, and the Environment — January 23-25, 2018 — Arlington, VA

June 29, 2017 – The Science, Business, and Education of Sustainable Infrastructure: Building Resilience in a Changing

World — The 2018 NCSE National Conference and Global Forum on Science, Policy, and the Environment: The

Science, Business, and Education of Sustainable ...

3rd National Energy Education Summit — January 22, 2018 — Washington, DC

June 29, 2017 – The purpose of the Summit is to engage energy educators in all sectors, including K-12, higher education and public education in sharing best practices and developing partnerships, in order to expand the impact and effectiveness ...

#### 360° NREL Algae Lab Tour

June 12, 2017 – (Algae Industry Magazine) Explore the National Renewable Energy Laboratory's algae lab as researcher Nick Sweeney takes you on a 360-degree tour of the algal biofuels research facility. Discover how NREL is growing algae to learn ...

# Pools and Fluxes: Modeling the Carbon Cycle

June 6, 2017 – (Great Lakes Bioenergy Research Center) We see that most students are not able to explain how biofuels vs fossil fuels influence atmospheric CO2, but these modeling activities can help build the systems thinking skills to ...

#### CLEAN Collection Now Aligned with the Next Generation Science Standards

June 6, 2017 – (Climate Generation) There are multiple ways you can search this robust collection of classroom resources using NGSS:

NGSS browse – a user-friendly search portal into the collection NGSS at a Glance – overview of all ...

#### UW-Madison Partners with Bonduel School District on Innovative Science Education

May 31, 2017 – by Leslie Shown (Great Lakes Bioenergy Research Center) If science classes at Bonduel Middle School had a rallying cry it would be, "Don't expect to find the answers in the book!" And Lisa Sorlie, enthusiastic advocate ...

#### Wisconsin Energy Institute's (WEI) Energy Institute for Educators — July 19-21, 2017 — Madison, WI

The Wisconsin Energy Institute's (WEI) Energy Institute for Educators provides the opportunity for educators to engage with cutting-edge energy research at UW–Madison, and gain practical tools and materials for teaching students fundamentals of energy and sustainable energy systems. The theme for the institute is "Energy, sustainability and climate change: Bridging contemporary science and engineering with classroom learning." READ MORE

For Ten Years Climate Generation Has Been Building the Climate Literacy and Confidence of Educators through Professional Development Opportunities.

(Climate Generation) Build your comfort, confidence and competence to bring climate change into your educational setting with our virtual and in-person training opportunities!

For ten years Climate Generation has been building the climate literacy and confidence ...

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 ...

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

#### E15 Biofuel in NASCAR and Spreading across the Country

June 30, 2017 –by Erin Kidd (Independent Tribune) When Austin Dillon crossed the finish line and made his way to Victory Lane at the Coca-Cola 600, there were smiles from all of his supporters and probably from Dr. ...

#### Syngenta and Growth Energy Partner to Promote E15 Fuel at American Ethanol E15 250 Race

June 26, 2017 – (Syngenta/AgriMarketing) Syngenta and Growth Energy are once again working with Iowa Speedway to demonstrate the value of E15 at the NASCAR XFINITY Series American Ethanol E15 250 presented by Enogen. The race, which will be ...

#### New London-Spicer High School Visited Chippewa Valley Ethanol Company

June 23, 2017 – (Minnesota Bio-Fuels Association) Thirteen students from New London-Spicer High School visited Chippewa Valley Ethanol Company (CVEC) in Benson yesterday to learn about ethanol production.

"We were pleased to welcome New London-Spicer High School to our facility ...

#### Teachers and Parents: Are You Teaching Climate Change?

June 14, 2017 – by Amy Harmon (The New York Times) Last week I wrote about a teacher, James Sutter, who is teaching the basics of climate change — the planet is warming and humans are primarily responsible — ...

#### McLean AAUW Honors Student for STEM Research

June 2, 2017 – (Inside NOVA) The McLean Area Branch of the American Association of University Women (AAUW) awarded Rose Rasty, a junior at George C. Marshall High School, the 2017 STEM Excellence Award at the AAUW Branch Annual ...

#### Worthington High School Visits Heron Lake BioEnergy

June 1, 2017 – (Minnesota Bi0-Fuels Association) Eleven students from Worthington High School visited Heron Lake Bioenergy on May 30 to learn about ethanol production.

The students, all 12th graders, were briefed on the various processes of ethanol production at ...

For more information about <u>K-12 activities</u> and <u>teacher resources</u>, click on these topics in the Categories list along the right margin of the <u>Advanced Biofiuels 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

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 ...

#### 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 ...

#### 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</u> <u>Biofuels USA website</u>.

# **Competitions, Contests**

Consider Corn Challenge: New Uses for Field Corn as Feedstock for Making Sustainable Chemicals — DEADLINE: September 28, 2017

June 12, 2017 – (NineSigma/National Corn Growers Association) Field corn production makes incredible contributions to human nutrition as a primary source of feed for cattle, hogs and poultry; to cleaner air and reduced greenhouse gases as the source of ethanol ...

Concept for Turning Corn Chip Oil into Biodiesel Fuel Earns Appalachian Students Second Place in International Food Solutions Challenge

June 2, 2017 – (Appalachian State University) What has 18 wheels and runs on corn chips? Thanks to a food solution from two Appalachian State University students, a chip producer's transportation fleet well could.

Senior chemistry major and sustainable business minor ...

Entrepreneur Scoops Old Mutual Funding to Develop Biofuel Enterprise

June 2, 2017 – (BizCommunity) At an event held on 27 May 2017, Old Mutual Foundation, in partnership with Red Bull, announced Thabang Mabapa as the winner of their "business pitch challenge"

A combined judging panel from Old Mutual and ...

RFA Launching 'Ethanol Days of Summer' Contest to Report Prices Prizes daily through Labor Day

May 24, 2017 -- (Renewable Fuels Association) Reporting prices for higher ethanol blends this summer could win you \$50 in free fuel per day. Beginning on Memorial Day, the Renewable Fuels Association is launching an "Ethanol Days of Summer" ...

#### Science & SciLifeLab Prize for Young Scientists DEADLINE: July 15, 2017

March 13, 2017 -- (Science Magazine) This Prize was created to recognize that global economic health is dependent upon a vibrant research community and we need to encourage our best and brightest to continue in their chosen fields of ...

#### 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**

#### ARC Awards \$1.5 Million to Support Biorefinery Center at ASC

June 19, 2017 – by Erin Voegele (Ethanol Producer Magazine) The Appalachian Regional Commission recently awarded a \$1.5 million grant to New York-based Alfred State College to support its Biorefinery Development and Commercialization Center project, which aims to help ...

#### Process Safety and Process Safety Management Boot Camp — July 11-14, 2017 — Kearney, NE

This four-day boot camp will provide employees with a deeper understanding of Process Safety and Process Safety Management that goes beyond personal worker safety. Process Safety Management is intended to prevent severe damage to equipment ...

# UC San Diego Extension's Microbial Fermentation Workshop — August 16-18, 2017 — San Diego, CA

Developed in partnership with UC San Diego's Division of Biological Sciences, this 3-day workshop is designed to provide a deep dive into bioreactor principles and bioprocess development. You will be equipped with the fundamental knowledge ...

#### **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**

#### **ATEC Passes First Semester**

May 10, 2017

(Algae Industry Magazine) The Algae Technology Education Consortium (ATEC), a collaboration among the National Renewable Energy Laboratory, the Algae Foundation, universities, community colleges, and industry production companies across the United States, has successfully implemented the first semester of the ATEC curriculum at Santa Fe Community College in Santa Fe, New Mexico.

The curriculum is part of a new, two-year degree program in Algae Biology, Technology, and Cultivation, with an overall goal of preparing students to be successful in technician positions in the algal industry.

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**

Articles that feature information about jobs in the advanced biofuels world

#### Made in the USA Biodiesel Supports Jobs, Fourth of July Values

June 29, 2017 – (National Biodiesel Board) America's Advanced Biofuel powers energy independence and clean energy — As the nation celebrates its independence, American-made biodiesel is powering fleets across the country and supporting more than 64,000 jobs throughout the ...

#### BIC Announces New SIRA Roadmap to Develop Europe's Bioeconomy

June 21, 2017 – (Bio-based Industries Consortium) To help build a resource-efficient, circular and bio-based economy, the Bio-based Industries Consortium (BIC) has announced its new Strategic and Research Agenda (SIRA). The SIRA identifies the activities needed to speed up ...

Green Jobs – Current and Future Trends AND Workshop – What's Your Green Career Plan? — August 17, 2017 — Washington, DC

June 21, 2017 – Join us for our fourth Annual Green Jobs event on Thursday, August 17th, 6-8:30 pm. We're bringing together green job seekers and providers of green jobs. We'll focus on current market and future market trends. ...

#### Austrian Market Is Fully Supplied with Biodiesel of Domestic Manufacture

June 20, 2017 – (Ukrainian Biofuel Portal) Such facts were published by ARGE, that unites six Austrian biodiesel manufacturers.

As the facts indicate, it was produced 269 000 tones of biodiesel in 2014. In comparison with the last year the ...

# ARC Awards \$1.5 Million to Support Biorefinery Center at ASC

June 19, 2017 – by Erin Voegele (Ethanol Producer Magazine) The Appalachian Regional Commission recently awarded a \$1.5 million grant to New York-based Alfred State College to support its Biorefinery Development and Commercialization Center project, which aims to help ...

# 40 Under 40 Class of 2017: Jenna Long

June 14, 2017 – by A. Kam Napier (Pacific Business News) Jenna Long, 31, Director of operations, Pacific Biodiesel The state's only commercial biofuel producer is humming along in Keaau, on the Big Island, a family-run business that pioneered that ...

#### Vonnie Estes to Receive 2017 Rosalind Franklin Award

June 14, 2017 – (Biotechnology Innovation Organization/BusinessWire) Estes to accept award and deliver remarks at 2017 BIO World Congress on Industrial Biotechnology — The Biotechnology Innovation Organization (BIO) today announced that biotech industry veteran Vonnie Estes will receive the ...

# African Oil Trader Taleveras Takes First Step into Biofuels

June 14, 2017 – by Anna Hirtenstein (Bloomberg) Taleveras signs joint venture with Global Green Development; First phase of biofuels project seen costing \$400-\$600 million — Taleveras Group, the African oil trading company, is making its first moves into renewable ...

#### Queensland Government Invests Big in Biorefinery

June 9, 2017 – (Biofuels International) The government of Queensland, Australia has announced it will inject \$8.64 million (€5.8 million) into a proposed \$50 million (€33.7 million) biorefinery, in a bid to help accelerate the project's development and construction.

#### Biofuels Work for Oregon

June 7, 2017 – by Jim Talent (Capital Ag Press/Americans for Energy Security and Innovation) Unfortunately, even as fracking reached new heights, America's total domestic crude oil production declined in 2016. According to new data from the U.S. Energy ...

#### Neste Deepens Its Knowhow on the Circular Economy - Waste Plastics Now in Focus

June 7, 2017 – (Neste) Neste deepens its knowhow on the circular economy – waste plastics now in focus — Neste, the world's leading biofuel producer in the circular economy, is putting a large amount of resources into research ...

#### RFS Has Been 'Tremendous Success' Since Adoption, According to RFA Analysis

June 7, 2017 – by Emily Druckman (Renewable Fuels Association) More than a decade after the original renewable fuel standard (RFS) was signed into law, tremendous progress has been made toward its goals of energy security, clean air and ...

#### Koehler Letter: Renewable Energy

June 2, 2017 – by Neil Koehler (Pacific Ethanol/Idaho Statesman) ... The Renewable Fuel Standard (RFS) has played a vital role in protecting the environment and American consumers. Without it, oil companies would once again have free rein to limit choices ...

#### A Decade of Bioenergy Research

June 2, 2017 – by Patrick C. Miller (Ethanol Producer Magazine) The Department of Energy's three bioenergy research centers have no intention of resting on their accomplishments. — In the 10 years since the U.S. DOE established three bioenergy ...

#### Champions of Change

June 2, 2017 – by Tom Bryan (Ethanol Producer Magazine) Past FEW Award of Excellence winners reflect on decades of research advocacy and leadership — Marty Andreas, the late Archer Daniels Midland Co. executive, once followed Charles Abbas out ...

# **Sustaining Opportunities**

June 2, 2017 – by Ann Bailey (Ethanol Producer Magazine) The ethanol industry provides young people with wealth of job opportunities. — Nineteen-year-old Marcus Niehaus sees a future in the ethanol industry. The Southeastern Illinois College student said ...

#### Owning The Ethanol Exec Role

May 30, 2017 –by Luke Geiver (Ethanol Producer Magazine) One year into her role as Guardian Energy CEO, Jeanne McCaherty has tapped into her previous experience at Cargill and the unique make-up of the ethanol industry. — It's

. . .

#### **Webinars**

For information about upcoming webinars, click here.

For archived webinars, click here.

# 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.

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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