

A monthly newsletter dedicated to Teacher Resources, Student Activities, Contests, Competitions, Online Courses, Webinars and MORE about Advanced Biofuels. Scholarships, fellowships, green jobs ... [Click here to SUBSCRIBE](#)

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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.



Educational News and Resources

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Featured Stories

USU Student Presents Small Scale Solution for Harmful Algal Blooms



Utah State University senior, Bethany Jensen, recently presented a talk about the collaboration among her team, Aggie Air, and Central Valley Water Reclamation Facility to detect and clean up harmful algal blooms from local reservoirs.

She outlines the effort with three key steps. Aggie Air provided the drone which expedited the process of identifying harmful algal blooms. Upon detection, Jensen and her team moved to the site to effectively separate the cyanobacteria, the substance of blooms, from the lake water via their custom designed mobile harvester.



Following extraction, Jensen worked with Central Valley Water Reclamation Facility for the final step, conversion of the cyanobacteria to biomethane (or renewable natural gas, a biofuel) and compost.

This was done via anaerobic digesters located at the plant, which effectively broke down the cyanotoxins emitted by the cyanobacteria.

As Jensen notes, their rudimentary system from harvesting through conversion is especially notable and worthy of further research. This exceptional biological engineering student details her experiment in a short video. [READ MORE](#)

Advanced Biofuels USA Makes Presentation Slides Available

Looking for PowerPoint slides to use in your presentations? [Click here.](#)

Teacher Resources

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

[Teachers Learn about Renewable Energy Production](#)

July 31, 2018 (Minnesota Bio-Fuels Association) Teachers from a Minnesota Department of Agriculture program that toured Guardian Energy today are looking at incorporating renewable energy production into their respective curricula.

Twenty-one teachers from the department's Minnesota Agriculture In The Classroom ...

[Interactive Fuel Ethanol Plant](#)

July 16, 2018 (Thermal Kinetics) At Thermal Kinetics, we're committed to providing the best overall engineering support and solutions for the Fuel Ethanol Industry. A great deal of work goes into the conception, design, sourcing, and construction of a ...

[How to Win the Public Policy Debate, and the Annual Government Agency Funding Battles for the Bioeconomy](#)

July 16, 2018 by Craig (CJ) Evans (American Diversified Energy Consulting Services/Lee Enterprises Consulting/Biofuels Digest) More than almost any other industry, financing for the bioeconomy is heavily influenced by and, in many cases, reliant on favorable public policies. Everyone involved in ...

[International Genetically Engineered Machine Competition](#)

July 12, 2018 (iGEM Foundation) A pioneer in engineering biology. — The iGEM Foundation is an independent, non-profit organization dedicated to the advancement of synthetic biology, education and competition, and the development of an open community and collaboration. This ...

[Green Chemistry Brings Its Virtues to the Classroom](#)

July 9, 2018 by Paul D. Thornton (Chemical Institute of Canada) ... More significantly, these real-world problems of toxicity, safety, and sustainability call for a multi-disciplinary approach and familiarity with many branches of chemistry. By educating students in green ...

[ACE Scholarship Program Announces 2018 Winners](#)

June 26, 2018 (American Coalition for Ethanol/Ethanol Producer Magazine) The American Coalition for Ethanol congratulates the 2018 scholarship recipients Keithen Drury, Brett Galles, and Emma Baker. Each student receives a \$1,000 scholarship through ACE's scholarship program to help further their ...

More [Teacher Resources here](#).

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

[Teachers Learn about Renewable Energy Production](#)

July 31, 2018 (Minnesota Bio-Fuels Association) Teachers from a Minnesota Department of Agriculture program that toured Guardian Energy today are looking at incorporating renewable energy production into their respective curricula.

Twenty-one teachers from the department's Minnesota Agriculture In The Classroom ...

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

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

[Bioenergy Internship & Fellowship Opportunities 2018 update](#)

August 1, 2018 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 the following:

American Association for ...

[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 ...

[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.

For more information about [Scholarships and Fellowships](#), click on those topics along the right margin of the [Advanced Biofuels USA website](#).

Competitions, Contests

[Applications Open Until 08/13 for AgTech Startups to Participate in First Phase of AgLaunch365](#)

July 18, 2018 (AgLaunch) Farm-Centric Program Assists in Field Trials & Attracting Investment — AgLaunch Initiative is excited to announce applications are open for Phase I of its nationally recognized commercialization approach – AgLaunch365. The program combines its leading accelerator ...

[International Genetically Engineered Machine Competition](#)

July 12, 2018 (iGEM Foundation) A pioneer in engineering biology. — The iGEM Foundation is an independent, non-profit organization dedicated to the advancement of synthetic biology, education and competition, and the development of an open community and collaboration. This ...

[Student Videos on Green Chemistry](#)

July 9, 2018 (Yale University) Our Center hosted a student video competition

at the 22nd Green Chemistry & Engineering conference in Portland, Oregon. The competition is part of the bigger Yale-UNIDO initiative, which aims to increase the general global ...

[\\$25 Grand Prize: Climate Change Needs Behavior Change](#) DEADLINE: August 7, 2018

July 2, 2018 – (Solutions Search) Climate change needs behavior change. What people eat, what they buy and what they use contributes directly to climate change. In just eight months, humans consume what the earth can sustainably produce in a ...

[RFA Holding Second Annual 'Ethanol Days of Summer' Contest](#) through September 4, 2018

May 23, 2018 – (Renewable Fuels Association/Ethanol Producer Magazine) Reporting prices for higher ethanol blends this summer could again win you \$50 in free fuel per day. Beginning Memorial Day, the Renewable Fuels Association is re-launching the "Ethanol Days of ...

[U.S. Department of Education Green Ribbon Schools](#)

(U.S. Department of Education) The aim of U.S. Department of Education Green Ribbon Schools (ED-GRS) is to inspire schools, districts and Institutions of Higher Education (IHEs) to strive for 21st century excellence by highlighting promising ...

For information about other competitions and contests, [click here.](#)

Webinars

For information about [upcoming webinars, click here.](#)

For [archived webinars, click here.](#) Often they are available for viewing online.

[WEBINARS: The Digest's Early Stage Webinar Series — On-going](#)

July 11, 2018 This weekly one-hour webinar series will bring you hundreds of slides, perspectives, voices introducing the hottest emerging technologies, applications, markets and players in the bioeconomy.

It's free, and you register once via a one-time sign-up, and ...

[WEBINARS: Sustainable Aviation Fuel: First Friday Research Highlights — on-going](#)

–Webinar series to highlight and question research areas in the sustainable aviation fuel supply chain

Join us in a series of 40 minute lunchtime talks to highlight the research areas key to supporting the creation of ...

Executive, Professional, Technical Training

[How to Win the Public Policy Debate, and the Annual Government Agency Funding Battles for the Bioeconomy](#)

July 16, 2018 by Craig (CJ) Evans (American Diversified Energy Consulting Services/Lee Enterprises Consulting/Biofuels Digest) More than almost any other industry, financing for the bioeconomy is heavily influenced by and, in many cases, reliant on favorable public policies. Everyone involved in ...

[2018 Biodiesel Seminar Tour Exploring Biodiesel — June 12 – September 18, 2018 —](#)

[Various locations](#)

May 21, 2018 – Exploring Biodiesel (XBX) is a series of regional, one-day seminars designed to educate those in the industry on the benefits and opportunities surrounding biodiesel.

The National Biodiesel Board, in partnership with several industry sponsors, has announced ...

[Summer School ZELCOR “Zero Waste Biorefineries: Technical Advances and Sustainability Assessment” — September 2-6, 2018 — Wageningen, The Netherlands](#)



(Graduate School VLAG) The 1st Summer School on waste biorefineries in the context of bioeconomy, with a focus on

valorization of recalcitrant side streams. A panel of specialists in the biorefinery field will provide an up-to-date ...

[Upcoming Ethanol Safety Seminars](#)

The Renewable Fuel Association, in partnership with several industry entities, will be hosting a series of Ethanol Safety Seminars 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. [READ MORE](#)

[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.

Online Courses

[A First-of-a-Kind Algal-based College Certificate Program Sends Off Its First Graduates](#)

June 27, 2018 – 7:47 pm | [No Comment](#)

(U.S. Department of Energy) The U.S. Department of Energy’s Bioenergy Technologies Office (BETO)-funded Algae Technology Educational Consortium (ATEC) is proud to announce its first graduates from the algal certificate program at Santa Fe Community College in Santa Fe, ...

[Consortium Launches Online Algae Intro Course](#)

(Algae Industry Magazine) A new online course in algae basics has just been made available by Coursera for anyone interested in learning the fundamentals of algae. The Massive Open Online Course (MOOC), Introduction to Algae, was ...

[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 ...

[RFA Develops 'Ethanol in the Classroom' Program](#)

by Cindy Zimmerman (Energy.AgWired.com) The Renewable Fuels Association has developed a new on-line educational program designed to help tomorrow's consumers get to know ethanol.

The new "Ethanol in the Classroom" course provides a fun and interactive way ...

[@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 ...



Consumer Education

[Marking Decade-Long Partnership, RFA and Buffalo Chip Campground Again](#)

[Collaborate on Sturgis Motorcycle Rally](#)

July 31, 2018 (Renewable Fuels Association) For the tenth consecutive year, the Renewable Fuels Association is partnering with the Buffalo Chip Campground to host the 78th annual Sturgis Motorcycle Rally, scheduled for Aug. 3-12 in Sturgis, S.D. The event ...

[Custom RFA E85 Motorcycle Hits the Road](#)

July 6, 2018 by Kelsey Quargnenti (Renewable Fuels Association) Last month, the Renewable Fuels Association custom E85 motorcycle from Paul Jr. Designs made its debut on “American Chopper.” It seems that most companies that commission a custom motorcycle from ...

Featured Study Programs

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

Green Jobs in the US and Around the World

What kinds of jobs are there in the bioeconomy around the world? Who might be hiring? What companies are expanding? Find leads and background information in this month's articles about advanced biofuels and the bioeconomy. [Click here for Green Jobs Lists and Company Career pages.](#)

[High-Yield Hydrocarbons from Ethanol: The Digest's 2018 Multi-Slide Guide to Vertimass](#)

August 1, 2018 by Jim Lane (Biofuels Digest) Vertimass technology was originated at Oak Ridge National Laboratory, where scientists discovered novel catalysts that convert a wide range of alcohols into various hydrocarbon blend stocks which can be used in ...

[Carbon Capture, Solar Fuels, Fossil Bubble](#)

August 1, 2018 by Jim Lane (Biofuels Digest) In Spain, BIOCON-CO2, a new €7 million EU Horizon 2020-funded research project, has recently kicked-off with intentions of supporting EU leadership in carbon dioxide (CO2) re-use technologies. BIOCON-CO2 aims to re-use excess CO2 ...

[TruStar Energy Makes RNG Moves](#)

July 31, 2018 by Betsy Lillian (NGT News) TruStar Energy, a developer of compressed natural gas (CNG) fueling stations, has hired Juan Reina as its new director of biogas – a strategic move for the company to start supplying ...

[Fueled for the Future Red Rock Biofuels Facility Breaks Ground in Lakeview](#)

July 30, 2018 by Kurt Liedtke (Herald and News) On Wednesday, members of Red Rock Biofuels, political dignitaries, corporate representatives and a large community contingent gathered on the outskirts of Lakeview for a groundbreaking ceremony for the \$320 ...

[This Start-Up Turns Pollution from Factories into Fuel That Powers Cars — and One Day Planes](#)

July 30, 2018 by Catherine Clifford (CNBC) A bacteria found in the gut of a rabbit can now help cars run in a more eco-friendly way. The bacteria, identified by biotech start-up LanzaTech, helps turn factory carbon emissions, a.k.a. pollution, into ethanol ...

[Biofuels: A Straightforward Fix for US Farmers' Tariff Exposure to China?](#)

July 24, 2018 by Jim Lane (Biofuels Digest) This is the first of a two-part series in which we look at strategic shifts in global commodity prices and policies that could dramatically impact the outlook for biofuels, In this ...

[The Digest's 2018 Multi-Slide Guide to Drop-in Renewable Fuels](#)

July 23, 2018 by Jim Lane (Biofuels Digest) This presentation on drop-in renewable fuels, featuring Drop-in Fuels 2020 author and in-demand industry consultant Will Thurmond details the very latest in a wide array of approaches to making infrastructure-compatible, high-blend ...

[Attis Industries Taps Timber Industry Leader for Procurement of Raw Materials](#)

July 20, 2018 (Attis Industries) Agreement Creates Feedstock Advantage for First Commercial Facility — Attis Industries Inc. (NASDAQ: ATIS) (the “Company” or “Attis”), a diversified innovation and technology holding company, today announced the execution of a letter of intent with ...

[Enerkem to Make Methanol Through Gasification in Netherlands](#)

July 20, 2018 by Arlene Karidis (Waste 360) The company will divert what would have headed elsewhere for incineration, while creating an alternative to fossil fuel, mainly for manufacturing and transportation fuel blends.

Now that Enerkem's Edmonton, Alberta, waste-to-cellulosic ethanol plant is ...

[Greenergy International: Acquires Amsterdam Biodiesel Manufacturing Facility](#)

July 20, 2018 (Greenergy International/4-Traders) Greenergy has reached an agreement with Oiltanking, a leading tank terminal operator, to purchase an idle biodiesel manufacturing facility located at Oiltanking's site in Amsterdam. The acquisition of a third biodiesel plant will allow ...

[Low-Carbon Jet Fuel and Diesel, at Scale: The Digest 2018 Multi-Slide Guide to AltAir Fuels](#)

July 20, 2018 by Jim Lane (Biofuels Digest) Established in 2013, AltAir Fuels was created to produce low carbon fuels and chemicals derived from sustainable feedstock. For its first commercial project, AltAir partnered with Alon Energy USA to use ...

[Thabang Mabapa on Producing Biofuel](#)

July 19, 2018 by Phathu Luvhengo (Destiny Man) Social entrepreneur and biofuel producer Thabang Mabapa has stepped up to provide a viable solution to South Africa's energy crisis

Public relations and communication graduate Mabapa has stepped up to help solve ...

[Surfactants, 100% Renewable and Biobased: The Digest's 2018 Multi-Slide Guide to Croda's Eco Range](#)

July 18, 2018 by Jim Lane (Biofuels Digest) Croda's new Eco Range of surfactants is 100% renewable and 100% biobased. Croda's is the first plant of its type in North America to produce 100% renewable, 100% biobased surfactants. The versatile ...

[Advanced Biofuels Are Key to Decarbonising Transportation](#)

July 17, 2018 by Markus Rarbach (Clariant/EurActiv) The recent agreements on the revised Renewable Energy Directive (RED II) are setting the tone for creating a stable and predictable business environment that will trigger the development of and investment in advanced ...

[NNPC Engages Cross River Community on 14mw Biodiesel](#)

July 17, 2018 by Harrison Edeh (Business Day) The Nigerian National Petroleum Corporation (NNPC) has commenced comprehensive community integration and stakeholders' engagement to sensitize dwellers of Iwure, Ojor and Osomba/Akin communities of Cross River State ahead of planned oil palm-based ...

[Algae for the Advanced Bioeconomy: The Digest's 2018 Multi-Slide Guide to Cellana](#)

July 17, 2018 by Jim Lane (Biofuels Digest) Cellana uses the most productive plants on earth—marine microalgae—to photosynthetically produce its ReNew line of Omega-3 EPA and DHA oils, animal feed, and biofuel feedstocks. Cellana's patented ALDUO system, a series ...

[Taming the Tasmanian Devil of Polymers: Lignin, the Orneriest, Roughest, Toughest, Most Un-cooperative and Abundant Natural Polymer Ever](#)

July 13, 2018 by Jim Lane (Biofuels Digest) ... Lignin has developed into a sustainable and very satisfactory alternative to fossil fuels.

But applications have been needed. Firstly, applications that work, then applications that pay, then applications at scale. Let's ...

[Brazil Ethanol Output Could Double by 2030 -Gov't Study](#)

July 12, 2018 by Rodrigo Viga Gaier (Reuters) Brazil's ethanol production could double by 2030, boosted by growing investments in the sector due to the government's RenovaBio program aimed at boosting the use of renewable fuels, according to a ...

[The Digest's Top 10 Innovations for the Week of July 11th](#)

July 11, 2018 by Jim Lane (Biofuels Digest) The pace of invention and change is just too strong, we've realized, to highlight annual or even quarterly or monthly rankings and summaries of significant product and service advances. For now, ...

[The 10 Green Chemicals Driving a Disruptive New Biobased Industry](#)

July 10, 2018 by Jim Lane (Biofuels Digest) A Petro Brexit (a/k/a, British companies exiting petroleum for the sustainable bioeconomy) : New report highlights how to ensure Britain becomes a world leader in bio-based chemicals In the UK, a recent ...

[From LanzaTech to Sierra Energy and the Latest Research, Syngas Is on Fire](#)

July 9, 2018 by Helena Tavares Kennedy (Biofuels Digest) Syngas, or synthesis gas, is on fire lately, with new technologies making the most of waste products like CO₂ or low-grade biomass and converting them into useful hot stuff like ...

[More than 100 SC Farmers Apply for Permits to Grow Hemp](#)

July 6, 2018 by Lisa Weismann (Live5News) ... The South Carolina Department of Agriculture will select 40 farmers to receive industrial hemp permits. These permits will allow farmers to grow up to 40 acres of hemp.

...

Hemp can be used to make ...

[BETO Issues Workshop Summary Report On Performance-Advantaged Biobased Chemicals](#)

July 6, 2018 by Lynn L. Bergeson (Bergeson & Campbell/Biobased and Renewable Products Advocacy Group) On June 27, 2018, the U.S. Department of Energy's (DOE) Bioenergy Technologies Office (BETO) issued a new report, Moving Beyond Drop-In Replacements: Performance-Advantaged Biobased Chemicals ...

[5 Minutes With... Dhivya Puri, Senior Technical Lead at Fiberight.](#)

July 6, 2018 by Dave Songer (Bio-Based World News) "The milestones and professional growth I've achieved in this role are above and beyond what I could have accomplished in academia within the same time frame."

Fiberight is a UK- and ...

Requests for Speakers, Posters, Presenters

For information about conferences seeking speakers, posters and presenters, [click here.](#)

Grants

For information about [grants, click here.](#)

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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](mailto:info@AdvancedBiofuelsUSA.org)

or call 301-644-1395

Help Us Continue to Provide Outstanding Service. Make YOUR Contribution Today!



Advanced Biofuels USA, a 501(c)3 nonprofit educational organization (NOT a trade organization) relies on Individual Contributions, Corporate Donations, In-Kind Donations and the Work of Many Volunteers to enable this organization to promote the understanding, development and use of advanced biofuels and to inspire action.

You can now make a secure donation to Advanced Biofuels USA via PayPal by clicking on the "[Donate](#)" button below. It's quick, easy and safe. Make it a year-long gift by making monthly installments automatically.

You can make your gift in memory or in honor of someone special. Just let us know. Call (301-644-1395) or send an email: info@AdvancedBiofuelsUSA.org. We'll send a special card acknowledging your gift.

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