

NARA's Investment in Biofuel Education

One of NARA's goals is to promote bioenergy literacy among students, professionals and the general public. This action is intended to develop a future bioenergy workforce and informed citizens. Listed are programs that receive financial support from the USDA-NIFA through NARA.

McCall Outdoor Science School

MOSS is a K-12 outdoor school teaching kids about science, place and community. NARA's support helped Pacific Northwest teachers and graduate students include biofuel lessons into the classroom.

Result: Over 260 teachers and 20 graduate students participated in bioenergy workshops and 20 lesson plans developed. More than 13,000 students participated in energy literacy lessons through MOSS.

Learn more at <https://nararenewables.org/documents/2016/09/newsletter-1-august-2012.pdf>

Energy Literacy Principles Matrix

The "Matrix" is an online resource that provides educational materials to teachers and students related to biofuel solutions. All resources are aligned with STEM standards.

Result: Over 700 resources have been catalogued.

Learn more at <http://energyliteracyprinciples.org/>

Tribal Partnership Program

TPP provides research opportunities in the area of biofuel development to Native American college students.

Result: Of the 16 Native American scholars who have participated in the NARA TPP program, one Associate in Applied Science (AAS) degree, five Bachelor of Science degrees, and one doctorate degree has been awarded. In addition, four Native scholars are on tap to achieve their degrees this academic year.

Learn more at <https://nararenewables.org/documents/2016/09/naras-tribal-partnership-program-tpp.pdf>

Facing the Future

FTF creates interdisciplinary K-12 curriculum that equip and motivate students to develop critical thinking skills, build global awareness, and engage in positive solutions for a sustainable future. NARA supported the development of elementary, middle, and high school energy curriculum and accompanying teacher trainings.

Result: Over 425 copies of Fueling Our Future (25 elementary, 222 middle, and 178 high school) have been distributed to teachers and 272 free individual lessons (92 middle school and 153 high school) have been downloaded from FTF's website, reaching over 20,910 students.

Learn more at <https://www.facingthefuture.org/>

Imagine Tomorrow

Pacific Northwest high school students provide creative solutions to the world's energy needs at this annual event. NARA's support expanded the event to Oregon, Idaho and Montana students and instigated a biofuel challenge category.

Result: Ninety-one teams involving 316 high school students have developed projects that explore the development of biofuels.

Learn more at <https://nararenewables.org/documents/2016/09/newsletter-29-july-2015.pdf>

Summer Undergraduate Research Experience

College undergraduate students conduct research during the summer.

Result: NARA included 48 undergraduate students in project research ranging from conversion technologies to supply chain analysis.

Learn more at <https://nararenewables.org/documents/2016/09/newsletter-30-augustseptember-2015.pdf>

Integrated Design Experience

IDX is a course at Washington State University (WSU) for undergraduate and graduate students that uses real world projects to train students to participate in a sustainable future. NARA's support mentored students to develop a facility site selection process and designs that contribute to envisioning a supply chain that uses post-harvest forest residuals to produce biojet fuel and other co-products.

Result: Over 195 students (110 undergraduate, 82 graduate, and 3 Ph.D) from Washington State University and University of Idaho have participated in IDX NARA and Mass Timbers projects, and some are entering the bioenergy workforce.

Learn more at <https://nararenewables.org/documents/2016/09/newsletter-31-october-2015.pdf>

Review their work at: <https://nararenewables.org/supply-chain-analyses/>

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NARA

Northwest Advanced Renewables Alliance

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NARA is led by Washington State University and supported by the Agriculture and Food Research Initiative Competitive Grant no. 2011-68005-30416 from the USDA National Institute of Food and Agriculture.

