

USDA Update

ASCENT Meeting
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USDA 2022 Partnerships for Climate-Smart Commodities

Examples of awards with potential relevance
to SAF production

USDA Partnerships for Climate Smart Commodities

- ▶ **\$2.8 Billion Program!!**
 - ▶ Pilot Projects up to \$100 Million
- ▶ Create market opportunities for U.S. agricultural and forest products produced using climate-smart practices and include innovative, cost-effective methods for quantification, monitoring and verification of greenhouse gas and carbon sequestration benefits.
- ▶ Pilot projects must focus on the on-farm, on-ranch or forest production of climate-smart commodities and associated reductions of greenhouse gas emissions and/or carbon sequestration.
- ▶ **Broad Eligibility!:** County, city or township governments; special district governments; state governments; small businesses; for profit organizations: Native American tribal governments; nonprofits that do or do not have a 501(c)(3); public and private institutions of higher education

SAF Feedstocks

- ▶ **The GEVO Climate-Smart Farm-to-Flight Program** (Links to the Sustainable Aviation Fuel Grand Challenge)
 - ▶ The project aims to **create critical structural climate-smart market incentives for low carbon-intensity corn** as well as to accelerate the production of sustainable aviation fuel to reduce the sector's dependency on fossil-based fuel. This project includes an **immediate market opportunity to sell climate-smart, low-climate-impact corn**.
 - ▶ **Lead Partner:** Gevo, Inc.
Other Major Partners: Southwest Iowa Renewable Energy, LLC, Google, Farmers Edge, EarthOptics, South Dakota State University, Regen Ag Labs, Yard Stick, Double H Ag Services, Farmers Edge, AgSpire, PrairieFood, Stine Seed Farm, Holganix, Trace Genomics, MidState Agronomy, Double H Ag Services, Colorado State University, Iowa State University, Standing Rock (SAGE) Renewable Energy Power Authority
Primary States Expected: MN, SD, NE, IA, Tribal
Major Commodities: Corn
 - ▶ **Approximate Funding Ceiling:** \$30,000,000

New Dairy and Forest Markets

► **NYS Connects: Climate-Smart Farms and Forests** (Links to USDA NIFA AFRI SAS CAP MASBio Mid-Atlantic Biomass Supply Project)

► Utilizing behavioral systems approach to break through social norms/barriers, this project will build on strong existing partnerships in the conservation and agricultural communities in NY state to expand climate-smart markets. This project will fund ag producers/forest landowners to implement multiple climate-smart agriculture (CSA) practices, utilize modern tools to quantify results of climate-smart agriculture, and build connections between landowners and companies with a demand for climate-smart commodities.

► **Lead Partner:** New York State Department of Environmental Conservation

Other Major Partners: NY State Dept. of Environmental Conservation, Dept. of Agriculture and Markets, Energy Research & Development Authority & Soil and Water Conservation Committee, Cornell, SUNY-ESF, other universities, small farms, social science NGO's.

Primary States Expected: NY

Major Commodities: Dairy, Forest Products

► **Approximate Funding Ceiling:** \$60,000,000

Sustainable Domestic Natural Rubber Industry

► **Building a Climate-Smart Domestic Rubber Industry and a Solution for Growers to a Water Crisis** (Links to USDA NIFA AFRI SAS CAP SBAR Guayule Natural Rubber Project)

► This project will **expand natural rubber production in the Southwest** with lowered greenhouse gas emissions, creating jobs in the region and for tribal stakeholders, and **building a climate-smart rubber bioeconomy based on climate-smart and sustainable practices.**

► **Lead Partner:** University of Arizona

Other Major Partners: University of Arizona, Bridgestone Americas, Inc., Colorado State University, OpenET, Eight REgional growers, Tohono O'odham Nation, Colorado River Indian Tribes (Mohave, Chemeuvi, Hopi and Navajo peoples)

Primary States Expected: AZ, Tribal

Major Commodities: Natural Rubber

► **Approximate Funding Ceiling:** \$35,000,000

Major Oilseed Crop: Soybean

- ▶ **Midwest Climate-Smart Commodity Program**
- ▶ This project will build markets and **provide funding to farmers via outcome-based contracts for the reduction and removal of carbon dioxide through the adoption of new climate-smart practices.** The remaining project funding will support farmer enrollment assistance, carbon quantification, technical assistance support, measurement, reporting and verification, and underserved farmer outreach and enrollment.
- ▶ **Lead Partner:** Iowa Soybean Association
Other Major Partners: ReHarvest Partners, PepsiCo, Cargill, Renewable Energy Group, Ingredion, Target, JBS, Coca-Cola, Mano y Ola, FarmRaise, Rural Community Assistance Partnership
Primary States Expected: IL, IN, IA, KS, NE, ND, OH, WI, SD, MO, MI, MN
Major Commodities: Corn, Soybeans, Wheat
- ▶ **Approximate Funding Ceiling:** \$95,000,000

Oilseed Cover Crop/Rotational Crop: Camelina

- ▶ **Climate-Smart Camelina**
- ▶ This large-scale pilot project aims to measure and validate the climate-smart advantages of *Camelina sativa* (L.) in both rotational and winter cover crop production systems and build associate climate-smart biofuels markets. **The project will accelerate farmer adoption of camelina as a non-food crop** grown on idle acres to produce more plant-based feedstock for renewable biofuels and chemicals with low carbon intensity and no land-use change while increasing carbon capture in the soil.
- ▶ **Lead Partner:** Global Clean Energy Holdings, Inc.
Other Major Partners: Sustainable Oils, Bakersfield Renewable Fuels, ExxonMobil, Farmobile/AGI, Davis Instruments, Pessl Instruments, EarthDaily Agro, Intelinair, Earth Optics, Yard Stick, ARVA Intelligence
Primary States Expected: ID, CO, KS, MO, MT, OK, OR, TX, WA, WY, Tribal
Major Commodities: Camelina
- ▶ **Approximate Funding Ceiling:** \$30,000,000

Update on National Institute of Food and Agriculture SAF Feedstock-relevant Coordinated Agricultural Projects (CAPs)

- ▶ IPREFER Pennycress Oilseed Cover Crop CAP
 - ▶ Genetically modified pennycress (native weed) >>> Golden pennycress (oilseed cover crop)
 - ▶ Produces oil for SAF or RBD, meal for livestock feed
 - ▶ Western IL U, CoverCress, Inc., Southern IL U
 - ▶ On the cusp of commercialization
 - ▶ 8,000 pilot acres planted Fall 2022
 - ▶ Strong farmer interest
 - ▶ Solid investment backing
 - ▶ Covercress purchased by Bayer (now a self-standing subsidiary)
 - ▶ Commercial relationship with Ag giant Bunge
 - ▶ Commercial relationship with REG (now part of Chevron)
 - ▶ Vast scaling potential in Midwest, upper Midwest

Update on National Institute of Food and Agriculture SAF Feedstock-relevant Coordinated Agricultural Projects (CAPs)

- ▶ SPARC *Brassica carinata* (Carinata) Oilseed Cover/Rotation Crop CAP

- ▶ Carinata non-GMO oilseed cover/rotation crop
- ▶ Produces oil for SAF or RBD, non-GMO meal for livestock feed
- ▶ U Florida, Nuseed, Inc., ARA
- ▶ On the cusp of commercialization
 - ▶ Strong GHG reduction potential
 - ▶ Solid agronomics and demonstrations
 - ▶ Strong farmer interest
 - ▶ Strong market in EU for livestock meal
 - ▶ First crop in a decade or more approved for RINS by EPA!!
- ▶ Solid investment backing
 - ▶ Nuseed signed commercial development agreement with BP
- ▶ Good scaling potential in Southeast crop rotations



Questions?

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