



National Institute of Food and Agriculture
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Biomass Research and Development Initiative (And NIFA Activities)

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Biomass Research and Development Initiative

- Objectives
 - Advanced Biofuels
 - Bioproducts
 - Biobased chemicals
- Technical Areas
 - Feedstock Development
 - Fuels/Product Development
 - Development Analysis (LCA)



Process

- Broad eligibility
- Pre-application Review overseen by DOE
- Full Application Review overseen by USDA
- Awards made by each Department
 - No comingling of funds between Departments
 - No comingling of R&D and Demonstration



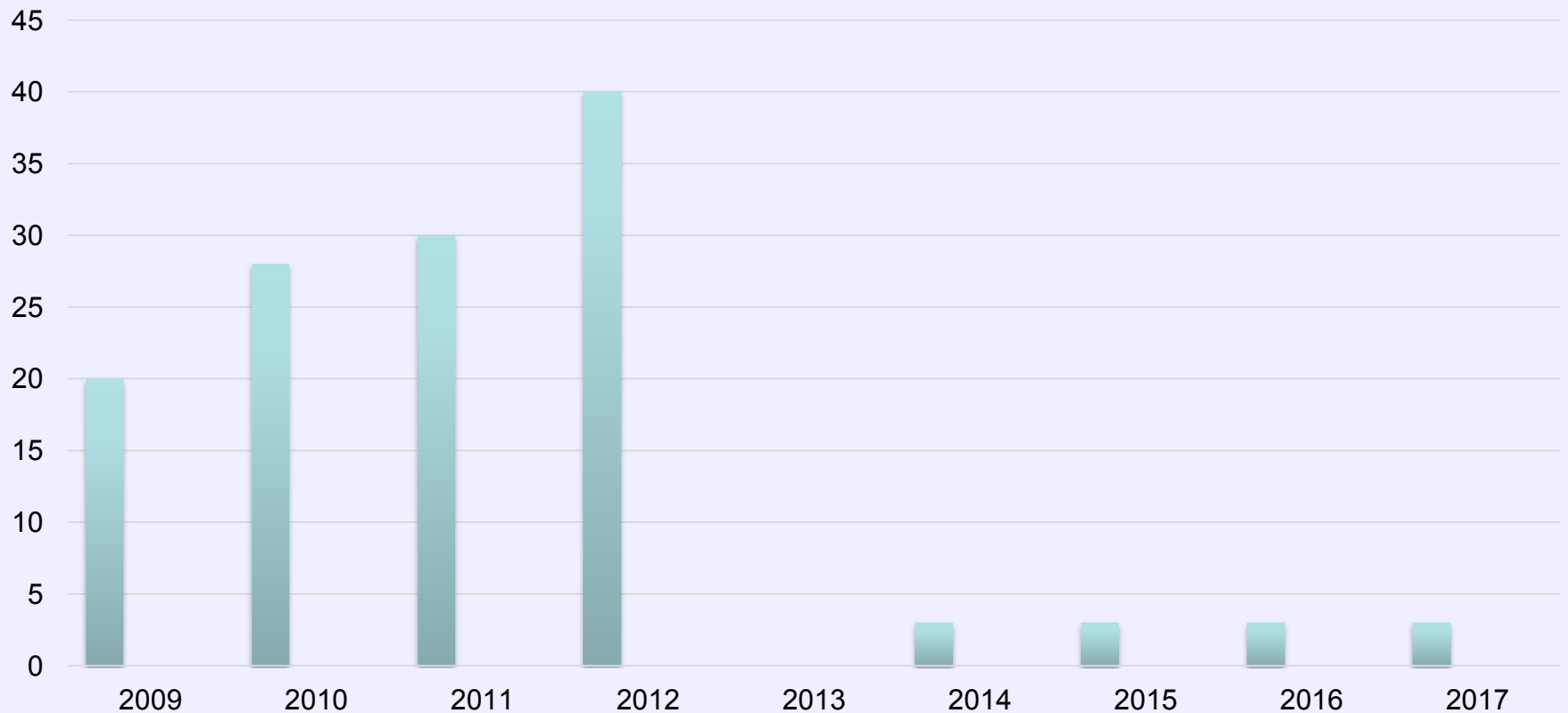
Cooper Tire

- \$6.9 M BRDI Grant
- 100% Guayule Tire
 - Genome and molecular breeding
 - Improved yield/acre
 - 1.7M miles road-tested (7 one way-trips to Moon)
 - “Green Across the Board” LCA





BRDI Funding in Millions





Applications and Budget

- ~ 370 LOI/Pre-applications
- ~ 70 Full Proposals
 - USDA Combined year budget ~ \$6 Million
 - DOE up to \$3 Million



Advances

- Using One Single Portal
 - DOE EERE-Exchange
- Yes, there have been hiccups
- On pace...Early 02/2018 decision



Committee Diversity

- Gender
- Ethnicity
- Professional Background
- Professional Growth



BRDI Beyond

- Proposal for Third Party Review
 - All projects funded/to be funded
 - \$100,000 OC-40 to Multistate Committee
- No FY 2018 Funding
 - Portfolio Review



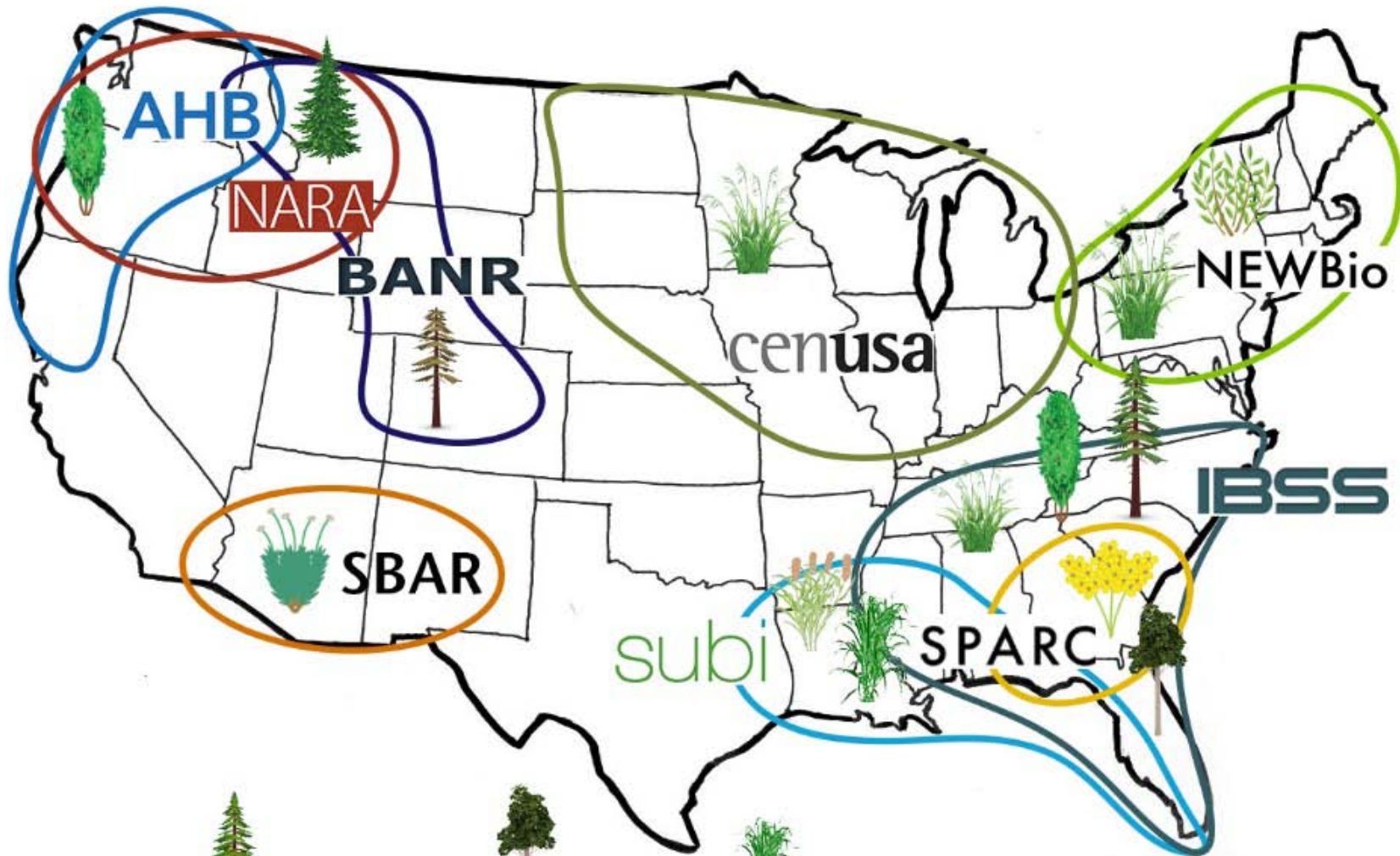
NIFA

- Extramural funding arm of USDA
- Research, Education, and Extension
- 4 Institutes and Center for International Programs
 - Institute of Bioenergy, Climate, and Environment
 - Division of Bioenergy



2017 Budget (~\$56.7 Million)

- Biobased Products
 - \$10.7 M
- Bioenergy/Biofuels/Analysis
 - \$40.5 M
- Education/Extension
 - \$5.5 M



- | | | | | | |
|---|--------------------|---|--------------|---|------------------------|
|  | Pine |  | Eucalyptus |  | Sugar Cane/Energy Cane |
|  | Forest Residues |  | Shrub Willow |  | Perennial Grasses |
|  | Beetle-killed Pine |  | Poplar |  | Sorghum |
| | | | |  | Carinata |
| | | | |  | Guayule |



AFRI Sustainable Biomass Education

- 3,394 Educators and Students reached
 - 30 states
 - 33% Minority
 - 38% teach where free/reduced lunch rate exceed 50%
- 30,240 Professional Development Credits



Outcomes

- \$1.6 Million grant for Anaerobic Digester
- Teacher of the Year
- New School Business
 - Tomato Mulch Mats
- Community College Certificates



Other AFRI Foci

- Co-Products Development
- Land-use Change
- Carbon Sequestration
- Wildlife and Pollinators
- Socio-Economics and Policy



Other NIFA Competitive Programs

- Biodiesel Education Program
- Joint Feedstock Genomics with DOE
- Sun Grant Initiative (ENDING)
- Critical Ag. Materials Program (ENDED)
- Forest Research Initiative
- Innovation at the Nexus of Food, Energy, and Water



Future Bioenergy at NIFA

- Hiring
 - NPL for Logistics
 - NPL for Behavioral Economics
- AFRI BNRE
 - Potential topics in logistics, feedstock management
- AFRI Nano/Cellulosic Technologies