Greetings, Colleagues!

Our Spring iSEE Quarterly (iQ) is chock full of major news from the Institute on our research, education/outreach, and campus sustainability missions.

The biggest news of all came in mid-March, when the U.S. Department of Energy renewed the iSEE- and IGB-led Center for Advanced Bioenergy and Bioproducts Innovation (CABBI) for five more years and $147.5M! One of the world’s major challenges is to provide sustainable sources of energy that meet societal needs as the population continues to grow, and the University of Illinois Urbana-Champaign is uniquely qualified to help lead that challenge along with its 20 partner institutions nationwide. Read the full news release.

Here is more from the past few months:

**IN RESEARCH**

- iSEE’s [RFP for $300k low-carbon transportation solutions research](#) received 11 applicant teams, and a May 8 workshop allowed interested participants to discuss team building and future directions.
- Two [Campus as a Living Laboratory](#) projects earned [seed funding](#) this spring: a computer-modeled classification of waste (and eventual automated sorting); and a study of automating high tunnel urban farming. More recently, the high tunnel project received a [975,000 grant from USDA NIFA](#) to supplement iSEE seed funding.
- iSEE Affiliate Jonathan Coppess outlined a new College of ACES/iSEE Agricultural Policy Design Center in an article for [FarmDoc Daily](#).
- From the Agroecosystem Sustainability Center and [SMARTFARM project](#):
  - Team members earned a [650k grant](#) to study (from space) tillage effects on yields, emissions, and nutrient loss.
  - Team members published a [paper](#) on cover cropping effects and the tradeoffs between soil organic carbon benefits and row crop yields.
  - View a [video](#) on one SMARTFARM team making unprecedented field measurements.
  - Team members published papers on [accurately mapping tilled land](#), as well as [predicting nitrogen drainage under various management scenarios](#).
  - Lead Investigator Kaiyu Guan earned [GroundBreaker Prize](#) and was featured in [AgFundNews](#) in a Q&A discussing ag technology.
- From the Leverhulme Centre for Climate Change Mitigation:
  - LC3M launched [RockFACE](#) at Illinois; read U of I student Megan Allen’s [blog post](#) about it.
- From [I-GUIDE](#):
  - The Center was featured in [Directions Magazine](#).
  - Read a [feature](#) on Pranjali Borse, a U of I graduate student who applies her civil engineering lens to climate change and sustainability.
- From the [SCAPES agrivoltaics project](#):
  - Check out the new [overview video](#).
  - Planting at the U of I’s Solar Farm 2.0 started this month!
  - Team members earned a [Reimagine our Future prize](#).
  - Arizona researchers received a [1.2M funding boost](#).
- From the **Illinois Regenerative Agriculture Initiative**:
  - Read about a seed-funded Basil Harvest project: [The Microbiome Connecting Thread](#).

- From **CABBI**:
  - Director Andrew Leakey answered 17 questions during Earth Week for The Science Coalition.
  - CABBI was part of a multi-Bioenergy Research Center study on the leaf microbiome in miscanthus fields, and the Center published a paper from all three of its themes on a new wastewater process for enhancing biorefineries.
  - Check out media coverage on the five year, $147.5M renewal from *The News-Gazette*, *Illinois Public Media*, and WAND-TV as well as regional and national sites like *Crain’s Chicago Business*, *FarmWeek Now*, and *Yahoo News*.
  - Read a feature on new Conversion Co-PI Melanie McReynolds and Penn State.
  - CABBI’s Ernst Cebert and Xianyan Kuang were featured prominently in a new article from *Southern Science* about Alabama A&M University’s contributions to ag and climate science.

- From the **Illinois Geothermal Coalition**:
  - Team members installed a geothermal battery on the Energy Farm.
  - IGC published a white paper on geothermal in the Midwest.

- From the **Energy-Enhancing FEWS project**:
  - Conversion of manure into asphalt binders and fuel was featured on Chicago's *WGN Radio*.

- **Seed-funded project updates**:
  - Graduate students on the Next-Gen Model for Urban Sustainability project led by Lei Zhao received the Andrew Slater Award from the U.S. National Center for Atmospheric Research. iSEE seed funding also partly funded three new papers by project members in *Nature*, *Environmental Research Letters*, and *Journal of Hydrology*.
  - An iSEE project led by Xiao Su recently published a study in *Nature Communications* that demonstrates energy-efficient capture and conversion of nitrate pollutants into ammonia.

- The new **ICOVER** grant was covered in *Farmweek Now* and *MorningAgClips*.

- Meet Heidi Leerkamp, new iSEE Proposal Development Lead.
IN EDUCATION & OUTREACH

- iSEE published two videos about the Sustainability, Energy and Environment Fellows Program: one recruiting students for our campuswide honors minor; the other featuring Busey Bank and Tovala to recruit partners for research projects in our capstone course.
- Congress 2023 drew 320 attendees over two keynotes and four panel sessions. Coming soon: A Critical Conversation on climate-smart commodities in Fall ’23.
- CEW and Q Magazine, which published Volume 5, Issue 2 this spring, recently opened the annual Janelle Joseph Environmental Writing Contest for all undergraduate students.
- The Spring 2023 Environmental Leadership Program featured 25 students who proposed policies in Springfield and to local city councils; read five entries our blog by a student cohort member.
- Levenick Teaching Fellow Samantha Lindgren taught the course she developed, EPOL 471, a second time this spring.

IN CAMPUS SUSTAINABILITY

- During EARTH MONTH, iSEE and partners’ events drew: 75 volunteers for a trash pickup that totaled 160 pounds of waste and recycling; 71 participants in our Energy Conservation Challenge; 40 at “Kindness Rocks” on the Quad; 92 at our clothing swap; and 75 at the Green Globes ceremony to honor student groups. Green Quad Day attached more than 40 environmental organizations visiting with hundreds of students about sustainability opportunities.
- Our popular Illini Lights Out program drew record numbers over 10 dates during 2022-23: 1,450+ volunteers flipping off 42,574 bulbs in as many as 38 campus buildings, saving as much as 73,400 kwh and $6,477 — and averting up to 47 tons of GHG — over those weekends!
- iSEE Associate Director Jennifer Fraterrigo visited the White House this spring to discuss sustainability; a University Birmingham contingent visited Illinois as part of exchange of decarbonizing ideas, and we returned the visit this month.
- Greener Campus updates: 1 office, 3 chapters, and 26 events were certified this spring.
- Records were set at the Zero Waste basketball game March 2: 92 students collected 1,280 pounds of recycling (28% diversion) — 340 lbs aluminum, 500 plastic, 440 mixed material. COMING IN FALL: A ZW football tailgating effort.
- Read our features on the 20th anniversary of the campus green fund; Arbor Day and campus tree efforts; the Sidney Lu Mechanical Engineering Building (numerous sustainable attributes); and a Q&A with new Zero Waste Coordinator Daphne Hulse.