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& Life Sciences



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COLLEGE OF AGRICULTURE
AND LIFE SCIENCES
CONTROLLED ENVIRONMENT
AGRICULTURE CENTER

USDA-NIFA Conference Announcement

Interdisciplinary Controlled Environment Indoor Agriculture R&D Roadmap and Coordinated Research Plan

The University of Arizona, Biosphere 2

September 9 – 12, 2019

Developing sustainable and strategic plans to feed the future in the face of growing global challenges will demand interdisciplinary vision, collaboration and innovation. Controlled environment agriculture (CEA) implemented as fully enclosed, multi-level indoor agricultural food production systems, Vertical Farms (VF), will complement future greenhouse (GH) plant production systems and will offer innovative technological solutions for issues at the food-energy-water nexus.

CEA systems are technology intensive and have unknowns in terms of economics, optimum plant production systems, and long-term sustainability to meet consumer food trends. Their complex properties will receive an integrated, cross-disciplinary, systems-based study that addresses stakeholder needs, meets challenges and identifies opportunities to grow the VF and GH industry sustainably to contribute to the U.S. agricultural economy.

The Conference

This conference will facilitate interdisciplinary discussions centered on several major thematic R&D areas for CEA/VF/GH, each of which will interface with the others to identify cross-disciplinary areas of synergy, opportunity and need. Thematic areas include:

1. Economics
2. Engineering
3. Production Systems
4. Plant Breeding
5. Pest and Disease Management
6. Food Nutrition and Safety
7. Marketing
8. Industrial ecology in closed systems

Conference participants are additionally welcome to join writing teams and collaborate on a proposal for a coordinated agricultural project (CAP) grant on VF that builds off of conference discussions. Writing teams may also choose to develop proposals for relevant funding programs at USDA-NIFA SAS, SCRI, NSF/USDA/DOE INFEWS, and NSF.

To Participate

Complete the Questionnaire indicating your area of expertise, and how you would contribute to the conference, and/or whether you are interested in joining a grant writing team. Conference attendance is not required to join grant proposal team.

CEA Indoor and Vertical Food Production Coordinated Research Conference is supported by USDA/NIFA award from the Agriculture and Food Research Initiative (AFRI) Competitive Grants Program. Priority A1102, "Foundational Knowledge of Agricultural Production Systems" Gene Giacomelli, Joaquin Ruiz, Murat Kacira (Co-PI's), Sarah Federman, Paul Zankowski, Kai Ling, Steven Newman, Kevin Bonine, John Adams (Key Collaborators).