



## WHAT IS CONTROLLED ENVIRONMENT AGRICULTURE?

Controlled Environment Agriculture (CEA) is a technology-based approach to farming that aims to create ideal conditions for plant growth while optimizing the use of resources such as space, water, and nutrients within controlled environments. Advances in cultivation, climate control, and lighting technologies, combined with the need to reduce resource consumption in agriculture, are making CEA an increasingly critical component of our global food system.

## WHY CEA STANDARDS?

Despite the advantages of CEA compared to conventional field-based farming, CEA enterprises face a number of obstacles to maintaining both profits and consistent, high-quality yields. The CEA industry is still young, which means there is ample opportunity to influence the design and operation of CEA systems to be more efficient and profitable, as well as environmentally and socially responsible. These criteria are not tradeoffs - all can be accomplished simultaneously through good design, operation, and management strategies.

## ABOUT CEADS

### Objective

The Controlled Environment Agriculture Design Standards (CEADS) set industry benchmarks and guide CEA enterprises in improving the design and performance of their operations, considering economic, environmental and social dimensions.

### Mission

CEADS enable growers to become leaders in the CEA industry through recommending standard best practices for the design and operation of CEA enterprises.

## WHO IS BEHIND CEADS?

CEADS was initiated in September 2019 at the USDA/ NIFA Az-CEA Conference, where CEA professionals from the private sector, government, and academia recognized the need to define goals for the advancement of the CEA industry. CEADS members contribute their knowledge, expertise, and networks toward the development and implementation of CEADS.

**PROFITABLE**  
**SUSTAINABLE** | **CEA DESIGNED TO LAST**  
**RESILIENT**

## THE CEADS FRAMEWORK

CEADS encompass the management of energy, water, materials, byproducts, pests, safety, and finances. Growers can obtain recommendations in the following seven CEADS Domains:

- Utilities
- Materials & Waste
- Crop Quality
- Integrated Pest Management
- Automation & Labor
- Equity & Localness
- Profitability

## HOW DOES CEADS CERTIFICATION WORK?

CEADS are voluntarily adopted benchmarks and practices. The application process for CEADS certification involves self-reporting by the CEA enterprise of the facility's fulfillment and commitment to CEADS requirements. Based on the number of points achieved, CEA facilities can be certified at one of four levels: *Certified*, *Seeded*, *Rooted*, and *Cultivated*.

## BENEFITS OF CEADS CERTIFICATION

- Industry-vetted, peer-reviewed design standards
- Validations for the enterprise market
- Positioning of sustainability that improves reputation with consumers, retailers, and business partners

For more information on the CEADS project, our members, and how you can get involved, please visit our website: <https://ceads.ag>

## PAST, PRESENT, AND FUTURE OF CEADS

