HYDROPONIC INTENSIVE WORKSHOPS
at the Controlled Environment Agriculture Center
March 2018

Lettuce Workshop
October 5th - 9th, 2019

Controlled Environment Agriculture Center
1951 East Roger Road, Tucson, AZ 85719

College of Agriculture and Life Sciences
Controlled Environment Agriculture Center

Arizoma
October 5th, 8:30am – 6:30pm

*Light Breakfast Provided*

**Introduction**

Tour of CEAC Campus & Analysis of Structures & Systems

**Common Questions**

**Greenhouse Basics**
- Greenhouse site selection
- Greenhouse designs & materials
- Environmental control – including sizing heaters & fans

“Greening the Greenhouse”
- Resource use Optimization

**Plant protection (Chapter 4)**
- Introduction to the pests: Insects, Mites & Diseases
- Integrated pest management (IPM)
- Control approaches

**Food safety & GHP/GAP certification (Lewis)**
- Safe production & handling procedures

*Lunch provided*
October 6th, 8:30am – 6:30pm
8:30am - Coffee & Previous Day Discussions

Deciphering your greenhouse – “Virtual Grower”
- Projecting heating costs
- Forecasting performance

Crop registration forms
- Data collection and measurements

*Lunch Provided*

October 7th, 8:30am – 6:30pm
8:30am - Coffee & Previous Day Discussions

Environmental control & system maintenance & monitoring
- Set-points and setup
- Monitoring methods
- System maintenance
- Plant/Environment Relationships
- Real-time monitoring – CEAC/tomatoes live

*Lunch Provided*

Propagation
- Substrate choices and starting materials
- Seeds and seeding
- Germination conditions
- Scheduling
October 8th, 8:30am – 6:30pm
8:30am - Coffee & Previous Day Discussions

**IPM, Disease, and Deficiencies**
- Common pests and treatment procedures
- Diseases common to production
- Nutrient deficiencies

**Growing Lettuce**
- Nutrition
- Spacing and layout
- Crop maintenance and monitoring
- Harvesting

**Post-harvest & Food safety**
- Post-harvest procedures
- Packaging, storage, and shipment
- Food safety procedures
- Safe production and handling procedures

**Certifications & GHP / GAP**
- GHP / GAP
- Certified Naturally Grown, Organic, and other labels
- Audits, check-ups, and maintenance of certifications

October 9th, 8:30am – 6:30pm
8:30am - Coffee & Previous Day Discussions

**Economics of production**
- Materials costs and consumption
- Operating costs
- Financials

**Business Considerations**
- Business planning
- Marketing
- Customers and Selling