



Special Edition: Realities of Growing Plants Indoors Short Course Combined with Investor & Business Forum (IBF)

Indoor Growing Short Course July 20 – 23rd

Reduced hotel room rate ends July 7th

Reserve room now at <http://www.wyndham.com/groupevents2014>

The 2014 *Realities of Growing Plants Indoors* Short Course will be held from **July 20–23** at the beautiful **Westward Look Resort**. The full course features **2 full days** of lectures (July 21st & 22nd) on the most current and innovative strategies used in successfully growing plants indoors (growth rooms and greenhouses). Day 2 will conclude with lectures focused on the financial side of growing by exploring production costs and what to do with crops post-harvest in order to have a successful business model. The last day of the course will feature a bus ride to the nearby UA-CEAC for tours of 4 indoor plant production facilities (see pg. 2 for details) and the Investor & Business Forum. Attendees will experience working controlled environments producing real crops and gain enhanced application of information presented with examples of many topics from the classroom lectures. See the complete course schedule:

https://cals.arizona.edu/ceac/sites/cals.arizona.edu/ceac/files/Indoor%20Growing%20Schedule_1.pdf

If you are interested in attending the 2014 *Realities of Growing Plants Indoors* Short Course, more information can be found on our website at:

<https://cals.arizona.edu/ceac/realities-growing-plants-indoors> or contact Aaron Tevik by email at atevik@cals.arizona.edu or by phone at (520) 626-9566. Registration is still open and seating is available!



Phil Sadler and Lane Patterson examining crops in the Prototype Lunar Greenhouse

Investor & Business Forum July 22 - 23rd

The **Investor and Business Forum (IBF)** is a special event within the **2014 Realities of Indoor Growing Short Course** organized by the University of Arizona Controlled Environment Agriculture Center (CEAC) on **July 23, 2014**. The purpose is to highlight and discuss **Opportunities for Success in Controlled Environment Agriculture Businesses**, by featuring a diverse panel of experts representing various critical aspects for the financial feasibility and success of the Indoor Growing and CEA Industry within a facilitated format for a limited and targeted audience (see pg. 2 for details of the panel members). The IBF will also explore different aspects of investment potential such as the team you must put together, market entry, positioning, financing, technology, and supply chain management. The IBF complements the first half of the course that focuses on growing the crops, by focusing on post-harvest marketing of the crops and obtaining a successful business model every step of the way. The IBF will be preceded by tours and interactions with 5 operating indoor plant growing systems at the UA-CEAC campus.

Business professionals and other attendees that do not have time for the full course can register for the July 23rd **Investor and Business Forum Option (IBF Option)**. Arrive Tuesday, July 22nd for a business lecture/discussion on the keys to a successful post-harvest at 3:30pm, followed by an evening reception, and then enjoy the morning tours, a hearty luncheon and the IBF on Wednesday, July 23rd at 12:00pm.

Please contact Aaron Tevik at atevik@cals.arizona.edu or by phone at 520-626-9566 with any questions.

Visit CEAC Indoor Plant Facilities at July Short Course

Students of the full Indoor Growing short course or the IBF option will participate in tours of CEAC **indoor plant facilities** the morning of July 23rd. No need for a passport!

Prototype Lunar Greenhouse - UA-CEAC, NASA and AZ business of Phil Sadler, Sadler Machine Co have developed a closed, lighted food production system. The inflatable/collapsible cylindrical structure 5.5 m long 2 m in diameter has produced 50 kg/m²/year (10 lb/ft²/year) of edible fresh vegetables. In UA-CEAC lab, no special clothing required.

Veggie Box - This 5.9 m² growing surface is provided by a vertically-stacked, multi-layer hydroponics and LED lighting system. The closed system provides maximized crop growth with elevated CO₂ (no release outside), heat pump controlled air temperature, for minimized electric energy use, and near 100% water use efficiency.

LED Lamp Demonstration – The light quality growth chamber was designed to test different light spectrum for the growth and development of vegetable transplants and leafy greens. This facility has the capability to provide different blue, green, and red photon flux ratios using light emitting diodes (LEDs). In addition, the facility also has a CO₂ injection system with the option to test different concentrations of CO₂. Presently, we are growing vegetable transplants such as tomato and cucumber.

South Pole Food Growth Chamber (virtual visit via classroom internet) - The SPFGC, an automated hydroponic plant growth chamber located inside the NSF Amundsen-Scott South Pole Station, has produced fresh vegetables, and provided bright light, high humidity and calming green plants for station personnel. Diesel-powered generators provide radiant energy for plant growth with a unique water-cooled HPS lamp system.

Greenhouse Hydroponic Crop Production – A Traditional, commercial-style greenhouse tomato and lettuce production with sunlight, and hydroponic nutrient delivery systems. Enjoy fresh tomatoes!

IBF Panel Members (Not all shown)



Robert Colangelo is the President/Founding Farmer of Green Sense Farms in Portage, Indiana. He is an entrepreneur with over 25 years of experience in the environmental industry and has founded several leading environmental organizations including the Environmental Planning Group (EPG), Environomics Communications, Inc. (ECI), Green Sense Farms, among others.

Paul Hardej is currently the Chief Technology and Development Officer at FarmedHere, which has a high-tech vertical farm located in the Chicago Suburb of Bedford Park, IL. He is an architect by trade and vertical farm technology-developer by experience. Mr. Hardej has gained a unique knowledge and experience in developing and operating an indoor organic farm in an urban setting.



Gary Jinks is currently the President of GLJ Group which provides business and product development planning, guidance and resources. He is also the Founder and Managing Director of South Valley Angels providing private investment and guidance to early stage startups. Gary's Agriculture experience comes from working with *Got Produce?* over the last 18 months, as a business advisor and consultant.

To see the all of the speaker bios, visit our website at <https://cals.arizona.edu/ceac/realities-growing-plants-indoors> and click on "Speaker Bios."

Announcements: To learn more about the short courses and CEAC activities, please visit our website at <http://ag.arizona.edu/ceac/public-courses> or email us at ceac@ag.arizona.edu.

Visit the CEAC Facebook page and stay current with CEAC news:

<http://www.facebook.com/pages/University-of-Arizona-Controlled-Environment-Agriculture-Center/152950294760506>



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