**2014 Realities of Growing Plants**  
**Indoors Short Course**  

**Speaker Profiles**

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<th><strong>Dr. Gene Giacomelli</strong></th>
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| College of Agriculture and Life Sciences  
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*Dr. Gene Giacomelli* is the Director of the Controlled Environment Agriculture Center (CEAC) at the University of Arizona in Tucson, Arizona, and he is a professor in the Agricultural and Biosystems Engineering Department, adjunct professor in the Plant Sciences Department, and a member of Bio5, the Institute for Collaborative Bioresearch. He is currently developing a Controlled Environment Agriculture program at the University of Arizona, Tucson, which includes: educating undergraduates and graduate students in Engineering, Plant Sciences and Agricultural Education; researching controlled environment plant production systems; outreach through cooperative extension to the citizens of Arizona; and economic development with application of CEA technology.

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<th><strong>Dr. Murat Kacira</strong></th>
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| Agricultural and Biosystems Engineering, Controlled Environment Agriculture Center, College of Agriculture and Life Sciences, The University of Arizona, 1951 E. Roger Rd., Tucson, AZ 85719, phone: 520-626 4254, email: mkacira@cals.arizona.edu  
| http://ag.arizona.edu/research/kacira/ |

*Dr. Murat Kacira* is an Associate Professor in the Department of Agricultural and Biosystems Engineering and also a faculty member in Controlled Environment Agriculture Center program. He has been active in teaching and research related to controlled environment agriculture for the past 20 years with working experiences in academia and research institutions in the US, Turkey, and Japan. His research involves in the area of greenhouse and plant energy balance studies, design and development of computer vision guided autonomous plant health and growth monitoring systems, modeling and simulation for analysis of greenhouse aerodynamics. He teaches both undergraduate and graduate level courses at the University of Arizona and has also been participating in extension activities through lecturing in short courses, invited seminar presentations, and providing technical greenhouse tours to the public.
Dr. Merle Jensen has served as an academician and consultant to industry for over forty years, developing agricultural systems for businesses, communities and aerospace application. He was one of the early pioneers in the development of agricultural plastics for greenhouses and brought one of the first Dutch Venlo glasshouses to the U.S. Early in his career, he did extensive research on tomato viruses and mineral nutrition for both horticultural and agronomic crops. He developed many of the cultural systems for controlled environment agriculture in over 50 countries, including drip irrigation, growing media, solar energy, energy alternatives and conservation for greenhouse vegetable production. His programs of research served as a prototype for food support systems for aerospace application.

Through his fund-raising efforts, he was able to establish the Controlled Environment Agricultural Center at The University of Arizona which serves today as the only such research/education center of its kind for university students in the U.S. He has served as a consultant to a number of major corporations and organizations, among which are the American and Chinese Academies of Science, The World Bank, Walt Disney World Co., Tennessee Valley Authority, Desert Glory, Ltd, Eurofresh Farms, and continues today with companies through Central and North America using the system approach in all aspects of greenhouse vegetable production.

Email: smjensen1@earthlink.net

Dr. Chieri Kubota
Professor
Controlled Environment Agriculture Center, School of Plant Sciences, The University of Arizona

Dr. Chieri Kubota is a controlled environment plant physiologist. She obtained her Ph.D. in 1994 from Chiba University, Japan. After her post-doctoral trainings in Clemson University and Laval University as a research associate, Dr. Kubota served as a faculty member in Chiba University, Japan, for six years, followed by 13 years at the University of Arizona. As a member of Controlled Environment Agriculture Center, Dr. Kubota leads several research, teaching and outreach programs to promote CEA technologies locally, nationally and internationally.

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Dr. Ricardo Hernández is currently a Postdoctoral Research Associate at The University of Arizona with an expertise in Lighting in Horticultural Systems. He completed his Ph.D. under Dr. Chieri Kubota at the CEAC center in control environment agriculture. He also completed a Master of Science in Entomology/Integrated Pest Management from Texas A&M University and a Bachelor of Science in Agronomy/plant consulting from New Mexico State University. Dr. Hernández current research area focuses on evaluating plant responses to new lighting technologies including LEDs under both supplemental and artificial lighting. In addition to his academic appointment he is also co-founder of Grafted Growers LLC, the first closed-type production company specialized in the production grafted vegetable transplants.

MILAN KLUKO  
Founder, Green Spirit Farms LLC  
President, Fountainhead Engineering Ltd

Milan Kluko has been in the environmental engineering, alternative energy, and solid waste industry as an engineering consultant, developer, vendor and technology supplier. Over three decades of experience in these roles he has gained project based experience with a wide variety of environmental, alternative energy, recycling and composting systems beginning 1983. Throughout his career he has held senior positions with publicly traded companies as well as senior technical and management positions with national engineering and environmental services firms and has founded several companies.

Using over 30 years of project based experience across a wide technical spectrum Mr. Kluko a multi (international) patent holder founded Green Spirit Farms on 11-11-11. The primary purpose of Green Spirit Farms is to commercialize more sustainable and low cost “farming” systems that operate year round growing fresh herbs and vegetables using less water, less energy not in greenhouses. He focused on being able to deploy his preferred growing approach - the Vertical Growing Station or “VGS” in repurposed industrial or old vacate buildings (i.e. Brownfield sites) to grow a variety of vegetables with monthly harvests and maximize yields with ultimate food transparency and security. This approach would significantly reduce the existing agricultural supply chain – which would in turn reduce greenhouse gas emissions, provide for improved ecosystem performance and use renewable or distributed renewable energy providing locally grown fresh vegetables.

Mr. Kluko has gained extensive technical, regulatory and operational experience in several sectors of the energy, mining, solid waste and environmental industry through project based or applied experience and has provided professional legislative lobbying at the federal and state levels including work in EU member countries. This experience has been developed through participation in projects as a consultant or vendor in 41 states as well as Canada, Mexico, Southeast Asia, South America, Bulgaria, Croatia, Serbia, Poland, the United Kingdom, and Antarctica.

For more information visit www.FountainheadEng.com
Paul Hardej – FarmedHere:

Paul is an architect by trade and vertical farm technology-developer by experience. He studied Architecture at Warsaw’s Polytechnic University, Poland, and at School of Architecture at University of Detroit, MI USA and Interior Design and Merchandising at the International Academy of Merchandising and Design in Chicago, IL USA. Prior to becoming involved in Urban Agriculture, he designed and developed many award winning real estate projects including restaurants, offices and multifamily housing.

Paul has always been involved in many non-profit organizations. He served as a long term committee member of the Illinois Holocaust Museum and Education Center in Skokie, IL. He co-founded and served as a board member of Polish American Chamber of Commerce and has been involved in many local community organizations focused on revitalization of Chicago neighborhoods. In 2008 he received a Citibank Heritage award for his non-for profit community work. Mr. Hardej has a vested interest in promotion of the local food movement. He participated on the Chicago Mayor Daley’s task force on Vertical Farming.

Currently he has a role of the Chief Technology and Development Officer at FarmedHere, which is the first commercial scale urban aquaponic and aeroponic farm of its kind. FarmedHere operates two farms, an aquaponic greenhouse farm in Flanagan, IL and a high-tech vertical farm located inside a 90,000 square foot post-industrial building in Chicago suburb of Bedford Park, IL. Since 2010, Paul Hardej took a leading role to develop the first indoor Vertical Aquaponic Farm in the U.S. He has designed and constructed the first large scale, multi-level in-door aquaponic/aeroponic grow systems and developed all farm operating procedures, trained farm staff, designed the Vertical Farm infrastructure including the most advanced HACCP Food Safety Program for the Controlled Environment Agriculture.

The large focus of his work relates to the development and application of soil-less growing mediums in recirculating aquaponics and aeroponics grow systems and to the artificial grow lighting technology, including fluorescent and LED lighting with focus on building code compliance productivity and energy efficiency.

Mr. Hardej has also designed and implemented a revolutionary compostable paper packaging for leafy greens, which extends shelf life while reduces dependence on plastic in produce packaging. His designs has a pending patent at the US Patent Office.

Mr. Hardej is very involved in the local food policy work and has managed to obtain all regulatory approvals for the first Vertical Farm in the US at all levels: Federal, State, County, Township and local municipality. Under his leadership FarmedHere obtained the first USDA Organic Certification for an in-door aquaponic farm. The company is also developing job training programs for aquaponics and urban Ag. The farm’s locally grown produce can be found on the shelves of over 90 local grocery stores including Whole Foods, Roundy’s (Mariano’s), and the best local organic stores and top restaurants.

Through the affiliation with FarmedHere, Mr. Hardej has gained a unique knowledge and experience in developing and operating an in-door organic farm in an urban setting. Under his technology and development leadership the company has successfully challenged a centralized and outdated food distribution system, which lead to creation of over 40 local urban farmed jobs, where most are paid a living wage and above. Paul Hardej can contribute his knowledge of regulatory environment, building codes, municipal zoning ordinances and design expertise to the process of expanding the local urban agriculture.

Paul is a frequent public speaker and an advocate of the good food movement. He has developed partnerships with Windy City Harvest, FamilyFarmed.org, Whole Foods Market, Village of Bedford Park, Chicago City Farm and Resource Center, which all contributed to the success of FarmedHere. FarmedHere is the world leading vertical
farm company and is very proud to be located in its home State of Illinois, while providing an example on how to execute a successful sustainable local urban agriculture business to the rest of the World. FarmedHere has been published in BBC News, Associated Press, Forbes, Chicago Tribune and many more media outlets around the U.S. and the Globe.

FarmedHere is one of the 2013 Chicago Innovations Award winners.

Mr. Hardej has been invited by the Governor of Illinois to participate in the Governor’s Local Food, Farms and Jobs Council. Additionally Paul advises New York City Development Corporation and several other municipal bodies on the strategy to develop a comprehensive policy to ease the regulatory barriers of entry for future vertical farms.

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**Robert Colangelo – Green Sense Farms**

President/Founding Farmer  
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**Mr. Colangelo** is an entrepreneur with over 25 years of experience in the environmental industry. He has founded several leading environmental organizations including Environmental Planning Group, (EPG), American Business Center Nizhnevartovsk, Russia, Environomics Communications, Inc. (ECI), *Brownfield News* magazine and Green Sense Radio Show, Brownfield Development LLC, the National Brownfield Association USA and Canada and Green Sense Farms (the largest commercial indoor vertical farm in the US).

He is recognized as a national expert and an authoritative source on Brownfields and sustainable development. He is published author, has written numerous articles and has developed and taught over 50 workshops on *Building Sustainable Communities and Attracting Developer and Investor Interest to Municipal Brownfield Projects*.

He has appeared on TV and radio, been quoted in national and local newspapers on the issue of sustainability. He has testified in congress in support of environmental legislation, and has made numerous presentations at conferences throughout US Canada, Europe and the Former Soviet Union. He has been a consultant for both foreign and domestic government agencies regarding the creation of environmental policy and programs, and to Fortune 1000 companies regarding management and divesture of their surplus properties. He holds both a BS and MS from Northeastern Illinois University.
Gary Jinks – Investor:

Gary’s Agriculture experience comes from working with Got Produce? Over the last 18 months, as a business advisor and consultant. Gary Jinks has worked with a wide range of companies; from early stage startups to large corporate enterprises such as BAE Systems and Rockwell Collins. Gary 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 also mentors early startups and students through the Santa Clara University entrepreneur program, the Clean Tech Open and Silicon Valley VC community. Gary graduated from the US Army NCO Academy; Systems Engineering Analysis at Portland State University, and holds a BS in Business Management from the University of Phoenix.

Gary Jinks has excelled at business and product development across, defense, high tech, clean tech and industrial/automotive markets. He has worked with a wide range of companies; from early stage start-ups to fortune 500 such as BAE Systems and Rockwell Collins. Gary is currently the President of GLJ Group which provides business and product development consulting, he is also the Founder and Managing Director of South Valley Angels, providing funding and guidance to early stage startups. Gary is also on the board of advisors for several startups, chairs the Morgan Hill Economic Development Committee and is a board member for the Morgan Hill Community Partnership (a non-profit corporation focused on small business education). Gary also mentors companies and students through the Santa Clara University entrepreneur program, the Clean Tech Open and Silicon Valley VC community.

Although most of Gary’s education has come from 30 years of hands on experience he is a graduate of the US Army NCO Academy; Systems Engineering from Portland State University, and holds a BS in Business Management from the University of Phoenix.

Since 2004 Gary has been the owner and President of GLJ Group providing business and product development consulting and services. During this time Gary has generated over $300M in new business for his clients and developed products ranging from circuit boards, B2B eCommerce solutions to combat vehicles. In 2008 Gary received the coveted BAE Systems Chairman’s award for process innovation and management, rarely given to a consultant. Prior to GLJ Group Gary developed the strategic planning and direction for Rockwell Collins expansion into the Army ground systems market. Gary helped launch two DotCom start-ups where he was introduced to the venture capital business model. Gary began his career with FMC (later United Defense) and was a key team member contributing to the design and development of over 20 combat vehicles. Gary is a graduate of the US Army NCO Academy; Systems Engineering from Portland State University, and holds a BS in Business Management from the University of Phoenix.

Gary helps start-ups achieve success and companies maintain competitive advantage. Funding, partners, execution, technology. He also helps start-ups achieve success and established companies maintain competitive advantage. Strategies, funding, partnerships and product development and technology transfer.

“I believe grow local consume local is the agriculture model of the future and modern commercial hydroponics is the leading solution for broad climate applications.”
Darcy Landis – Whole Foods Market

Forager Darcy Landis heads up the Whole foods Market Local Program for Arizona, working with family farms and artisan producers not only supplies our customers with the freshest and tastiest products it also supports the growing community within Arizona to find local pathways for our foods. Darcy started with whole foods market in 1999. She has is passionate about supporting community and the unique flavors Arizona has to offer. Whole foods market has always been a part of the communities our stores are based in. When we saw a need for a locally placed advocate of the producers in Arizona, Darcy jumped at the chance to make the program a success. From ensuring that products meet our rigorous quality standards to mentoring potential vendors on the steps necessary to bring a product to market or working or to bring together community ventures Darcy loves local.

“I believe in food. I believe in its ability to create community, at the table in the market or on the farm. Connection with our food enlivens and inspires. We demand more of the sources of our food and of ourselves when we are connected to it. You understand the value of what we eat when you know how and by who it was produce. I want our customers to make that connection. Our local program gives them the chance to do that.”

Mark Cassius – SunFed Farms

Mark Cassius is Chief Innovation officer with SunFed Farms, based in Rio Rico, Arizona with over 30 years of Produce buying, selling and marketing experience in various roles in the produce industry. He received his BS degree from Arizona State University in Purchasing and Materials Management. After spending ten years working in the supermarket channel while attending High School and College, he joined Fleming Foods for three years as a senior produce commodity buyer before joining Del Monte Fresh Produce where Mr. Cassius spent ten years in numerous senior sales positions. In 2004 Mr. Cassius joined EuroFresh Farms as senior Vice President of Sales and Marketing during which time EuroFresh expanded its high tech Greenhouse capacity from 120 to 320 acres. When Mark is not in the office, traveling visiting with customers, or walking crops in Mexico, he spends his free time tilling the plot at the Tucson Community Garden with his wife Jennifer.