EDIBLE LANDSCAPES

8:00 – 9:00 am  Backyard Orchard Culture
Tom Spellman, Dave Wilson Nursery

Backyard Orchard Culture is a concept based method of home growing fresh, tree ripe fruit. Concepts discussed will include controlling tree size for ease of management, growing successive ripening varieties so home growers can harvest small amounts of fruit throughout the year, growing varieties that are adaptable to your growing area and varieties that the family will use and appreciate, understanding your individual microclimate, multi planting and multi grafting, using fruit plants for function, form and ornamental appeal, and container culture of fruit plants. Additional topics discussed include mulching, irrigation, fertilization, pest and disease control.

Tom Spellman has over 45 years of experience in the southwestern nursery industry with 38 years focused on the production, sales and distribution of fruiting plants and grafted ornamental stock. Since 2001, he works as southwestern sales manager for Dave Wilson Nursery and before that he worked for 20 years as general manager of La Verne Nursery. Tom sponsors and assists with experimental projects throughout the Southwest testing the concepts and limits of home fruit growing. Tom lectures, conducts workshops, writes on home fruit growing as well as doing video, radio and television work on backyard orchard culture.

9:10 – 10:10 am  Selection and Care of Dates and Figs
Dr. Glenn Weight, UA School of Plant Sciences

Selection and care of dates and figs – Can anyone tell them apart anyway? Dates and figs may appear to be similar, but there are some real differences. This talk will highlight the adaptability, botany, variety selection and care of date and fig trees for Arizona. Additionally fruit storage, nutritional benefits, and processing will be discussed.

Dr. Glenn Wright has a Ph.D. in Horticulture from Texas A&M University. He joined the University of Arizona in August 1992, and is located at the Yuma Agriculture Center. He works with the commercial citrus, and date palm industries in Southwest Arizona and with other fruit-bearing crops, such as pomegranates and olives. His research interests encompass all horticultural and post-harvest aspects of these crops. Dr. Wright has developed a course titled Citrus and Date Production taught for the University of Arizona teaching program in Yuma, and he teaches citrus, date and fruit tree culture to master gardeners and the general public across the state.

10:25 – 11:25 am  Design with Edibles
Jason Isenberg, REALM

Design with edibles will feature how edible plants are incorporated in landscapes. Designs focus on multiple approaches for sustainable and environmentally sound landscapes.
Jason Isenberg is the owner and founder of REALM, a certified APLD Landscape Designer, certified arborist and certified with ALCA’s Sustainable Landscape Management.

12:15 – 1:15 pm  **Pomegranates for Arizona**  
Dr. Ursula Schuch, UA School of Plant Sciences

Pomegranates have been cultivated since ancient times and were introduced over 200 years ago into the Southwest. Prized for their tolerance to arid climates, low water requirements, and nutritious fruit there is great interest in exploring different cultivars. This presentation will report on the performance of 32 pomegranate varieties grown in different locations in Arizona. The characteristics of different cultivars, yield, and pest and disease issues will be discussed.

**Dr. Ursula Schuch** is a University of Arizona Extension Specialist and Professor with statewide responsibility in environmental horticulture. Dr. Schuch received a Ph.D. in Horticulture and a MS in Forest Science from Oregon State University. She presents seminars and workshops for professionals in the green industry and conducts research to address relevant issues in horticulture production practices and landscape management. Her research interests include irrigation requirements of trees and shrubs, abiotic stress affecting landscape and other plants, and minimizing inputs in nursery production and landscape management. Current research projects include cultivar trials of pomegranates, identifying the causal agent of palo verde broom, and salinity tolerance of plants.

1:25 – 2: 25 pm  **Berry Nutty! Growing Pecan or Grape in the Arizona Landscape**  
Joshua Sherman, Cochise County Cooperative Extension

Of course you can grow a nut tree or grape vine in your Arizona landscape! This session will discuss the “need-to-know” basics for the large nut-producing shade tree and berry vigorous vine. From elevation, soil, fertilizer, water, cultivar/varietals, rootstock requirements, and disease or pests to watch and control. You can grow the optimum and healthiest nut or grape clusters to take from your landscape to the culinary endeavors in the kitchen.

**Joshua Sherman** is the Area Agent of Commercial Horticulture for Cochise, Pima, Santa Cruz and Graham counties, providing leadership for Extension programs in commercial fruit and nut trees, vines, and small-scale acreage or specialty crop production. Some of his current projects include: Mineral nutrition of pecan, salinity tolerance of pecan rootstocks, efficacy of fungicide chemistry on controlling cotton root rot, use of pre-emergent herbicides in pecan and pistachio orchards, and phenology of fruit and nut crops in Southeast Arizona micro-climates

2:35 – 3:35 pm  **Plant the Unexpected: The Surprising Edible Trees that Grow in Arizona’s Desert**  
Ann Audrey, LEAF Network

People living in Arizona’s deserts can grow a wide range of edible trees—over 40 native and cultivated trees yield fruits, nuts, seeds and pods that suit human palates. The seeds of native ironwood, palo verde, oak and walnut trees augment mesquite pods as important native food sources. Cultivated jujube, persimmon, hawthorn and sapote trees add color, variety and tasty fruits to desert landscapes.
The LEAF (Linking Edible Arizona Forests) Network provides free information to help people plant, care for, harvest and celebrate Arizona’s edible trees.

Ann Audrey has a master’s degree in Water Resources Administration from the University of Arizona, advanced training in sustainable design and extensive experience in rainwater harvesting and habitat restoration. She is the Chair of the LEAF Network Steering Committee, overseeing the development of a website, guidebook and database to help people choose, plant, care for and harvest edible trees throughout Arizona. This work is supported by a grant from the Arizona Department of Forestry and Fire Management.

PLANT HEALTH

8:00 – 9:00 am Common Insects of Trees and Shrubs
Peter Warren, AZ Department of Forestry and Fire Management

Common insects of trees and shrubs will cover the basic types of insect problems, how to diagnose them, and how to manage them. A selection of commonly seen insects and integrated pest management tactics for each will be discussed in greater detail as well as some exotic invasive insects that we are monitoring across the western states.

Peter Warren is the Forest Health Program Coordinator for the Arizona Department of Forestry and Fire Management. His areas of education and expertise are entomology, integrated pest management, and plant problem diagnosis. For 18 years, he worked as a County Extension Agent for Virginia Tech and the University of Arizona in the areas of agriculture, horticulture, and natural resources.

9:10 – 10:10 am Organic Weed Control
Dr. Bill McCloskey, UA School of Plant Sciences

Weedy plants are persistent invaders of residential landscapes that draw the ire of homeowners for multiple reasons. How weed seeds and propagules move across regional landscapes and the concept of a soil seed bank will be discussed to provide knowledge basic to residential weed control. The focus will be on organic weed control tactics such as sanitation (avoiding importing weed seeds), hand weeding and mowing, the use of propane torches and organic herbicides. Selected organic herbicides will be discussed along with their limitations and how they work.

Dr. Bill McCloskey is a University of Arizona Cooperative Extension Specialist in the School of Plant Sciences in the College of Agriculture and Life Sciences. Dr. McCloskey obtained MS and Ph.D. degrees in Plant Physiology (Weed Science) from the University of California. His Extension programs and supporting research have focused on economically managing weeds in Arizona’s irrigated crops and invasive species using sound ecological principles and a variety of control tactics. These have included using precision guidance technology (GPS), optical and electronic sensor technology, computerized application technology and mechanical cultivation in addition to traditional chemical tools. Bill is also developing management tactics for the weeds associated with new crops such as guayule and is working on the management of invasive species such as buffelgrass, Russian knapweed and saltcedar in rangeland and natural or wild landscapes. Bill presents numerous lectures and workshops on weed...
management to audiences involved in Arizona crop production and weed management in urban, range and wild landscapes in support of Cooperative Extension educational programs.

10:25 – 11:25 am  **Controlling Diseases of Fruit and Nut Trees and Grapes**  
Dr. Alex Hu, UA School of Plant Sciences

*Xylella fastidiosa* is a pathogen on numerous host plant species in Arizona and the cause of established and emerging diseases. This pathogen causes Pierce’s disease on grape and bacterial leaf scorch on pecan as well as leaf scorching on oleander and chitalpa. This presentation will cover symptom expression, disease transmission, pathogen characteristics and detection, as well as common management strategies.

**Dr. Alex Hu** is an Extension Plant Pathologist in the School of Plant Sciences since September 2016. He is developing an extension and research program to address plant pathology needs in central and southeastern Arizona. He has more than 18 years of experience in applied research on disease management on tree crops and field crops. Before joining the University of Arizona, he worked on disease management on emerging plant diseases such as citrus black spot and citrus greening (HLB) at the Citrus Research and Education Center at the University of Florida.

12:15 – 1:15 pm  **Green Options for Pest Management**  
Peter Warren, AZ Department of Forestry and Fire Management

Green options for pest management will cover the basics of integrated pest management with an emphasis on least toxic methods for managing pest problems. Scenarios for a few common pest problems will be discussed to highlight the ways integrated approaches can work to solve problems.

**Peter Warren** is the Forest Health Program Coordinator for the Arizona Department of Forestry and Fire Management. His areas of education and expertise are entomology, integrated pest management, and plant problem diagnosis. For 18 years, he worked as a County Extension Agent for Virginia Tech and the University of Arizona in the areas of agriculture, horticulture, and natural resources.

1:25 – 2:25 pm  **Pruning in the Urban Forest**  
Dave Herman, Parks and Recreation, Town of Marana

Municipal pruning is a specialized field of arboriculture and urban forestry that deals with management of planned and naturally occurring green spaces on public land in communities. It involves planning, establishing, protecting, and managing public trees and associated vegetation. In some cases, municipal pruning may also involve trees on private property, for instance, if the tree poses a public hazard due to its height over a sidewalk or its interference to vehicle traffic, it will need to be pruned before the bus does it for you. Sidewalks, street, buildings and utilities all affect Municipal Pruning where as in the forest and backyard you would be pruning for structure and health of the tree.

**Dave Herman** has been in the green Industry for over 38 years. Thirty-five years was in golf, holding every position and achieving certified golf course superintendent status as Director of Greens and Grounds at Heritage Highlands Golf and Country Club. He opened that course to rave reviews winning
best new retirement golf course in 1997. For the last three years, he was Program Coordinator Senior for Plant Health and Landscape Manager at the University of Arizona. There he became a ISA Certified Arborist- Municipal Specialist with a Tree Risk Assessment Qualification (TRAQ). The University of Arizona was just named the most beautiful college in Arizona by Travel and Leisure. Just last month he was named Superintendent of Parks and Recreation for the Town of Marana where he will oversee construction of two new parks including the 13 acre Tangerine Sky Ranch.

2:35 – 3:35 pm  
**Protecting Trees during Construction**  
Dr. Tanya Quist, UA School of Plant Sciences

Healthy plants are central to all life on earth. Trees not only provide oxygen, and perform other life-sustaining environmental functions but also support us through the cost savings, social, cultural and aesthetic benefits they provide. However, to stay healthy is no easy feat for plants! They don’t have the luxury of moving themselves to more favorable situations when their circumstances become unpleasant. They must stand and endure a complex range of difficulties ranging from excessive heat, drought, high light, cold temperatures, pests and diseases. However, of all the stresses plants endure, urban trees suffer most at the hand of well meaning, even aspirational people – those who design landscapes, construct buildings and manage built environments. The damage resulting from human action (and inaction) has been aptly named “bulldozer blight”. The good news - it is perfectly preventable. In this talk, we will look at strategies and approaches to coordinate the design, construction and maintenance phases of construction projects, and special precautions that can be taken to preserve trees during construction so that their long-term health and capacity to support us is preserved.

Dr. Tanya Quist received a Ph.D. in plant physiology and molecular genetics from Purdue University’s Department of Horticulture and Landscape Architecture with a focus on understanding how plants respond to stress. Presently, as Associate Professor of Practice in the UA School of Plant Sciences and Director of the UA Campus Arboretum, her interests relate to arid adapted woody ornamental landscape plants with a focus on sustainable horticultural practices for urban forest ecosystems.

WATER

8:00 – 9:00 am  
**How to Increase Water Efficiency in the Landscape**  
Michael Ismail, Thrive and Grow Gardens

In this presentation, we will discuss the significant factors which affect irrigation efficiency in the landscape. While making a distinction between "irrigation coverage" and "irrigation efficiency", Michael will analyze the impact environmental factors, system components, maintenance, and management practices have on the efficiency of an irrigation system.

Michael Ismail is a local gardening professional who owns Thrive and Grow Gardens, which provides consultation and installation services for vegetable gardening and permaculture. He is also a Certified Master Gardener and Pima County Smartscape instructor. He is on advisory councils for the Pima County Master Gardeners as well as Conserve to Enhance. He also does regular segments discussing gardening and water conservation on the Weekly Green on KXCI and on the Morning Blend on KGUN 9 news.
This session will review the basics of irrigation design. Topics covered will include hydraulics, how to size the irrigation based on the available water supply, and how to design and implement a successful drip irrigation system. Participants will learn how to avoid or fix problems related to their irrigation systems.

Herb Hofmann is an electric engineer by degree having graduated from Arizona State University. Prior to working in irrigation industry, he held marketing and sales positions in the process controls industry including oil refining, chemicals, power generation, and food processing. He has worked for various irrigation manufacturing companies over the last 15 years including returning to Rain Bird after a several years absence. His specialty is central control and pump station applications.

Scott Calhoun has gardened in the American Southwest for over 20 years and is the author and photographer of six books about the region. Scott’s presentation on strategies for designing water-thrifty home gardens is not just about using rainwater, but about selecting plants suited to specific landscape situations. The talk will also focus on creating beauty in harsh situations through the use of bold color, surprising seasonal flourishes, and rugged rock work.

Scott Calhoun has gardened in the American Southwest for over 20 years and is the author and photographer of six books about the region. Scott is the recipient of the 2014 Phoenix Home & Garden “Master of the Southwest” award for garden design. His work has been featured in The New York Times and The Wall Street Journal. He writes a monthly column for Sunset magazine and freelances for numerous publications. Scott runs Zona Gardens, a design studio based in Tucson, Arizona. He designs, writes, and lectures throughout the United States. Find out more at www.zonagardens.com.

Given increased urban development and scarcity of natural resources in the American Southwest, it is increasingly important to develop science driven landscape designs – designs which optimize plant health and which maximize the ecological benefits the landscape provides. This session will connect principles of plant physiology and ecology to horticulture and design to prepare participants to develop sustainable landscapes supporting healthy urban ecosystems.

This presentation will discuss how to schedule irrigation for your landscape most efficiently throughout the year. Changing the irrigation clock to reflect the actual evaporation demand is important to save
water. However, plants vary in their water requirements throughout the year not only based on the weather.

Candace Rupprecht is a water conservation specialist with the City of Tucson. She has a MS in Hydrology and Water Resources form the University of Arizona and has been working for 10 years in the area of water conservation. Joaquim Delgado is a hydrologist by training and has worked for the City of Tucson in various capacities on water conservation.

2:35 – 3:35 pm Cacti and Succulents for Arizona
Greg Starr, Starr Nursery

Southern Arizona has a great climate for a diverse landscape plant palette and cacti and succulents have long been overlooked. Greg will show a wide variety of cacti and other succulents that are ideal landscape plants for Tucson and the rest of the mid- to low elevation desert regions of southern Arizona. Some plants are used for their shape and form while others are noted for their flowers or colorful spines. Come hear stories about how some of these fascinating plants came to be a part of the southwestern plant palette. Never one to take himself too seriously, Greg likes to inject a little humor into his presentations.

Greg Starr was born and raised in the Sonoran Desert although he did not become a true plant-o-phile until his college days. His fascination with desert plants for landscaping lead to his first book, Cool Plants for Hot Gardens, which went viral and is now out of print. His second book, Agaves: Living Sculptures for Landscapes and Containers, is a direct result of his long standing interest in those amazing plants. He recently co-authored the Field Guide to Cacti and Other Succulents of Arizona, funded by the Tucson Cactus and Succulent Society and private donors. He travels throughout Mexico with many recent trips to Baja California researching a proposed book on the Agaves of Baja California. Greg is an advocate of mixing flowering plants with cacti and other succulents and promotes this idea whenever possible. Greg has presented talks on agaves, cacti and other succulents, and desert plants in general throughout the United States and will be going worldwide at Australia’s Succulenticon 2018.