

**Urban Irrigation and 4R Plant Nutrition In-Service Training**  
**Clearwater, FL**  
**June 3, 2014**

1:00 – 1:20	Welcome and Introduction	Don Rainey Mike Thomas
1:20 – 1:45	Using Social Science to put Science into Action: Understanding How to Motivate Homeowners to Increase Outdoor Water Conservation	Liz Felter
1:45 – 2:05	Basic Calculation of Turfgrass Irrigation Requirements	Kati Migliaccio
2:05 – 2:35	4Rs and how they fit in with urban work.	Don Rainey
2:35 – 2:55	<b>Rate:</b> UF Recommendations – Soil testing, sampling and change from Mehlich 1 to Mehlich 3	Kelly Morgan
3:00 – 3:30	Coffee Break	
3:00 – 3:30	<b>Source:</b> N Loading research, N Release Curves, Turf Responses	Laurie Trenholm
3:30 – 4:00	<b>Place:</b> Fertilizer Application and Fate	Gurpal Toor
4:00 – 4:30	<b>Timing:</b> Overview of Warm-Season Grass Growth and Fertilizer Timing	Laurie Trenholm
4:30 – 5:00	Questions and Discussion	Don Rainey/Panel

# Agricultural Irrigation and 4R Plant Nutrition In-Service Training

## Clearwater, FL

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1:00 – 1:20	Welcome and Introduction to Irrigation Systems in Florida	Lincoln Zotarelli
1:20 – 1:50	Current situation and directions of the agricultural water demands and polices in Florida	Darrell Smith
1:50 – 2:15	What is needed to design and manage an efficient irrigation system?	Brian Boman
2:15 – 2:40	Technological advances for irrigation and soil water management in agriculture	Kati Migliaccio
2:40 – 3:05	Evapotranspiration, irrigation scheduling and nutrient movement	Kelly Morgan
3:00 – 3:30	Coffee Break	
3:30 – 5:00	Sections by irrigation system, division in three major groups	See table below
5:00-5:10	Final remarks and directions to GCREC June 4 <sup>th</sup>	Lincoln Zotarelli

Time	Seepage Irrigation	Drip Irrigation	Overhead Irrigation
3:30 – 3:50	Sanjay Shukla – Seepage irrigation and offsite movement of nutrients	Irrigation Sources, well installation and sizing – Dr. Jeff Ullman	Drought tolerance of crops under overhead irrigation management – Diane Rowland.
3:50 – 4:10			
4:10 – 4:30	Conversion of seepage to drip irrigation/plastic mulch. Charles Barrett.	Kelly Morgan - Basic calculation of irrigation crop irrigation requirements	Mace Bauer - Use of soil moisture sensors for irrigation scheduling
4:30 – 4:50	Lincoln Zotarelli - Seepage vs. alternative irrigation systems	Bob Hochmuth – the success history of the drip irrigation academy in north Florida	David Liu – the transition from seepage to overhead irrigation

**Agricultural Irrigation and 4R Plant Nutrition In-Service Training  
Gulf Coast Research and Education Center, Balm, FL  
June 4, 2014**

9:00 – 9:20	Welcome and Introduction	Jack Rechcigl or Craig Stanley
9:20 – 9:40	BMP goals, implementation and assessment	Darrell Smith
9:40 – 10:00	Development of TMCLs and BMAPs	Mark Clark
10:00 – 10:20	Goals of sustainable agriculture and 4R concepts	George Hochmuth
10:20 – 10:30	Coffee Break	
10:30 – 10:50	Practices supporting nutrient management and anticipated outcomes	Kelly Morgan
10:50-11:10	Crop Scouting and plant deficiency	Gene McAvoy
11:10 – 11:30	Soil testing, sampling and change from Mehlich 1 to Mehlich 3	Kelly Morgan
11:30-12:00	Plant tissue analysis and interpretation	Bob Hochmuth
12:00 – 1:00	Lunch (Provided)	
1:00 - 1:20	4R Performance indicators and nutrient use efficiency	Kelly Morgan
1:20 – 1:40	Development of 4R nutrient plans	Mace Bauer
1:40 – 2:00	Incorporating 4Rs into BMP education	Ruth Borger
2:00 – 5:00	FIELD DEMONSTRATIONS	
2:00 – 2:30	Drip irrigation design, part and components	Michael Alligood and Charles Barrett
2:30 – 3:00	Soil moisture sensors application, operation and how to conduct a demonstration trial on growers field	Mace Bauer, Mark Warren
3:00 - 3:30	Irrigation of vegetable crops, freeze protection of strawberries	Lincoln Zotarelli, Emmanuel Torres-Quezada, Tyler Jacoby
3:30 – 4:00	Citrus Irrigation and freeze protection	Kelly Morgan
4:00 – 4:30	Drip dye test	Bob Hochmuth
4:30 – 5:00	Soil and plant tissue sampling	Mace Bauer
5:00	Adjourn	