

What is Master Irrigator Training?

Master Irrigator training is an irrigation management curriculum made up of 24 hours of intensive irrigation education conducted over four one-day sessions, all on consecutive Wednesdays. Perfect attendance is required to qualify for EQIP funding and to graduate from the course. The program is focused on increasing proficiency with the latest irrigation management tools, technologies and practices, as well as, understanding of how and why they work. Armed with this knowledge, you will be able to select tools and strategies that fit your operation and can be implemented to maximize your return on investment for every drop of water you use.

When:

Session I: Wednesday, March 22, 2017
Session II: Wednesday, March 29, 2017
Session III: Wednesday, April 5, 2017
Session IV: Wednesday, April 12, 2017

Where: North Plains Water Conservation Center
6045 County Road E
Dumas, TX 79029

Why Should I Be Interested?

A panel of producers, industry representatives and university specialists developed the curriculum by identifying irrigation tools and practices that would assist producers in cost effectively saving water. The curriculum covers a wide range of irrigation equipment and management strategies. Some of the topics addressed include:

- planting drought-resistant hybrids at appropriate seeding rates;
- monitoring field conditions using rain gauges, flow meters and soil-moisture probes;
- managing irrigation with planting date, eliminating or reducing pre-irrigation, controlling the pivot, switching to a variant of low-energy precision application irrigation or other high-efficiency delivery system, and using telemetry and irrigation scheduling tools;
- managing crop residue by using conservation tillage practices; and
- adjusting nutrient application to address reduced irrigation.

In addition, each session will include the economic implications of the strategies being presented.

Several founding principles make the Master Irrigator program effective. First, all the tools, strategies and practices are accessible and available to producers to use in their operations immediately. The solutions presented here are practical, not theoretical, and they are designed to help you start using less water while remaining economically viable, today. Second, combinations of teaching techniques are utilized to maximize the learning

experience including lectures, problem solving and in-field, hands-on application. In addition, each session will include a panel of producers using the technology/strategy to discuss pros and cons they have observed.

The program is taught by the best instructors available. Speakers are selected on the basis of their expertise and communication skills, regardless of university or industry affiliation. And finally, spreading the program out over a four-week period allows participants time to reflect on what they've learned, to ask follow-up questions, and for relationship building and networking.

Of the 2016 graduates responding to a survey, 100% said they planned to implement the information they learned in the course.

Master Irrigator Graduates Have Access to a Special EQIP Fund Pool

Through an agreement with the Natural Resources Conservation Service, those participants who complete the program and are awarded the Master Irrigator Certification will qualify for a special EQIP cost-share on approved conservation practices.

Each cost-share recipient will receive in-season technical support to ensure strategies are being optimally implemented. Participants will be required to work with NPGCD personnel in documenting the effectiveness of the practices employed.

How Is Master Irrigator Funded?

Registration fees pay only a small portion of program costs. The Master Irrigator program is financially supported by the North Plains Groundwater Conservation District in cooperation with USDA-Natural Resources Conservation Service.

Who Can Participate?

Any irrigator can apply. However, registration will be **limited to 25 participants, or until March 10, 2017**. In the case that more than 25 applications are received by the registration deadline, successful applicants will be determined by the date of application and location of the operation.

How Do I Register?

Register online at <http://northplainsgcd.org/masterirrigator>.

You may also complete the registration form and mail to:
North Plains Groundwater Conservation District
PO Box 795
Dumas, TX 79029

For more information or questions related to the registration process, please call 806-935-6401 or email kwelch@northplainsgcd.org.

SESSION I: Agronomics

Session I is devoted to the agronomics of efficient water management. Topics will include NRCS funding availability, soil health, tillage, residue management and fertility management.

Steve Walthour is the General Manager of the North Plains Groundwater Conservation District. He leads a team of professionals that manage groundwater resources for all, or part, of eight counties within the District. Walthour has over 30 years of geology and groundwater management experience.



Keith Sides is the State Irrigation Engineer for USDA-NRCS. He moved into that position in November 2015 after starting for NRCS as a field engineer in October 2009. Prior to working for NRCS, Keith worked in several positions in the irrigation industry. He worked as a salesman and designer for a local irrigation supply company before going on to work for a national manufacturer and then back as a designer for a local SDI installation company. He graduated from Texas Tech University in May of 1994 with a Bachelor of Science in Agricultural Engineering. He has been around irrigation all his life as he grew up in production agriculture just east of Lubbock.



Mike Caldwell is the Resource Team Leader with NRCS in the Dumas Field Office, which includes Dallam, Moore, Hartley, Sherman, and Oldham Counties. Caldwell graduated in 1988 from Texas Tech University with a Bachelor of Science in Range Management. Working at the Bushland Research Station from 1985-1988, he was on the Small Grains Research Crew. Caldwell started with the Soil Conservation Service, now known as the Natural Resources Conservation Service (NRCS), in June 1988 at the Follett Field Office, and transferred to the Dumas Field Office in 1992.



Fred Vosacek is Senior Laboratory Agronomist for Servi-Tech, working from the Dodge City location for over 30 years. His responsibilities to all three Servi-Tech Laboratories include helping to develop and improve services to laboratory clients (soil, water, feed and plant testing), technical training and special projects.



David Reinart is co-owner of Better Harvest Inc. located in Dumas, Texas and providing soil fertility consulting, moisture monitoring services and irrigation-related equipment sales and service. Reinart has been involved in the farming industry for 50 years, as a farmer for 24 years, and in fertilizer, chemical and seed sales for 30 years. He started Better Harvest Inc. 12 years ago, with a focus to improve nitrogen use and efficiency in corn.



SESSION II: Irrigation Scheduling

Session II explains the application of the irrigation scheduling tools. Participants will explore the costs and potential returns to irrigation scheduling and whether you should apply pre-water, or not? Presenters will discuss the variety of tools available for measuring soil moisture. Participants will learn about the many aspects of using capacitance probes, from installation to reading the data, and what to do with the information. Finally, there will be a discussion about bringing all the data together to make irrigation scheduling easier to use in your operation.

Dr. Stephen H. Amosson is a Regents Fellow, Professor and Texas A&M AgriLife Extension Service Economist-Management based in Amarillo. Dr. Amosson's program covers the economics of implementing the various water-saving strategies.



Dr. Jourdan Bell is an Assistant Professor and Agronomist for Texas A&M AgriLife Extension Service and Texas A&M AgriLife Research. Bell has spent much of the past 20 years working at the Conservation Production Research Laboratory near Bushland, first as a student technician with Texas A&M AgriLife Research, and then with the U.S. Department of Agriculture-Agricultural Research Service.



David Sloan is the Principal Agronomist with AquaSpy, Inc., and has over 20 years of experience working with soil moisture sensors for irrigation scheduling. Over the past five years he has been working with the North Plains Groundwater Conservation District to improve water-use efficiency of irrigated field crops through Strategic Irrigation Management. He has been teaching local growers how to use soil-moisture sensors to observe root growth and water infiltration and to put the right amount of water on at the right time.



Dr. Charles Hillyer is an Assistant Professor and Irrigation Engineering Specialist for the Texas A&M AgriLife Research and Extension Center in Amarillo. Dr. Hillyer most recently served at Oregon State University as an assistant professor. Dr. Hillyer has worked specifically on irrigation management for the last 10 years, focusing on variable rate irrigation (VRI), using zone control VRI in combination with other irrigation technologies to develop and refine water and energy-saving management methods.



SESSION III: Systems

Session III focuses on optimizing the most widely used irrigation system in the region, the center pivot system. Topics will include the economics of the center pivot and other systems, application efficiency, variable rate irrigation and pivot management, and monitoring and control, including remote pivot shut-off.

Leon New has more than 40 years of experience in conducting irrigation field demonstrations with growers. He is the Project Lead on the NPGCD's conservation demonstrations. New guided Texas A&M AgriLife Extension's in-the-field AgriPartner Demonstration Program, where annual irrigation and available seasonal water data were obtained in conducting approximately 650 demonstrations from more than 71,000 acres of crops in cooperation with about 450 growers on the Texas High Plains during the '98-'07 growing seasons. His professional career has been dedicated to helping farmers achieve increased crop production from less water.



Karlyle Haaland is the founder and CEO of PivoTrac Monitoring, specializing in remote pivot monitoring and control.

Farris Hightower has been the Regional Sales Manager for Lindsay Sales and Service, LLC covering southern Oklahoma, Texas, New Mexico and Arizona for over 20 years. He works closely with Lindsay/Zimmatic dealers on implementation of new products and techniques in water application and irrigation management. He holds a Certified Irrigation Designer designation by the Irrigation Association and serves as a committee member for the USDA-NRCS on the Texas State Technical Advisory



Committee. A 1981 Agricultural Education graduate of Texas Tech University, Farris is a past president of the Texas Agricultural Irrigation Association.

SESSION IV: Systems & Special Topics

The final session includes discussions of various topics related to irrigation management, including the 2017 profitability outlook for irrigated crops, the use of drones, other remote sensing techniques, variable frequency drives, and sub-surface drip irrigation.

Jeff Childs is a 1989 graduate of the University of North Texas. From 1990 to 2014 he worked as a Senior Applications Engineer for WinSystems in Arlington, Texas. WinSystems is a leader in 'American Made' industrial microelectronics that operate from -40C to +85C. In 2014, he moved to Yaskawa America as the Regional Sales Engineer for most of Texas and New Mexico. Yaskawa America has been building motor control equipment in the United States for 50 years.



John Gibson is a Precision Ag Specialist for Crop Quest based out of Dodge City, Kansas. Gibson manages the satellite imagery program utilized by Crop Quest, where they surpassed over 3 million acres of processed images this past season. He is also the lead on the UAV R&D project currently being evaluated at Crop Quest. Gibson also helps provide support for managing and utilizing yield, EC/EM, grid/soil sampling data and any other data types used to help agronomists and producers better manage their fields.



Bryce Howard is a farmer in Dalhart, TX who uses satellite imagery and drones in daily operations.

Jerry Funck is the owner of Professional Water Management Associates.

Industry Sponsors



Registration Form Master Irrigator Program - \$100

Register Online:

<http://northplainsgcd.org/masterirrigator>

Name: _____

Address: _____

Phone: _____ / _____

Fax: _____ / _____

E-mail: _____

Please specify information about your operation:

Location (county): _____

Occupation: _____ Producer: _____ Other _____

Commodities produced:

Crops (acres)

Corn _____ Wheat _____

Sorghum _____ Cotton _____

Other _____

What irrigation management tools do you currently use?

For questions or additional information, contact Kirk Welch at kwelch@northplainsgcd.org; or Steve Walthour at swalthour@northplainsgcd.org (806-935-6401). Web address: <http://northplainsgcd.org>

_____ Check (payable North Plains Groundwater Conservation District)

_____ Mastercard _____ Visa _____ Discover

Card Number _____

Exp. Date _____

North Plains Groundwater Conservation District

PO Box 795

Dumas, Texas 79029

Phone: 806-935-6401

Registration will be accepted for up to 25 qualified participants or until

March 10, 2017



**NORTH PLAINS
GROUNDWATER**
Conservation District



2017

The Master Irrigator Program

“We cannot stop doing better or we lose everything.”

-2016 Master Irrigator Graduate

Educational programs of the North Plains Groundwater Conservation District are open to all people without regard to race, color, sex, disability, religion, age or national origin.



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