



# Evaluate the Performance of Your Irrigation System

**Y**our irrigation system works most effectively when it distributes the right amount of water uniformly. This fact sheet explains how you can use an evaluation to determine if your system is performing as well as it can.

## **What's involved in an evaluation?**

The main part of the evaluation is a field test of your irrigation system. With pressurized systems, trained Mobile Lab technicians will check the operation of your filters, and emitters or sprinklers. Pressures and flow rates are carefully measured throughout the field to determine how uniformly water is being applied to your crop. With this information along with observations made in the field, a report is generated that will be given to the grower when the evaluation is completed.

## **How long does it take?**

The Mobile Lab technicians will need only a few minutes of your

time to answer some basic questions about your system. After that, the technicians will spend several hours performing a careful examination of your system. Additional time is then needed to compile the information and assemble a report. After the report is complete, the technicians will need a few more minutes of your time to meet with you and go over the results of the evaluation.

## **How much does it cost?**

Thanks to a grant from the Department of Water Resources, the North West Kern RCD can provide its Mobile Lab Services at little to no cost to water users.

# North West Kern Resource Conservation District

## What does poor uniformity cost you?

*Too Much!* Poor uniformity means that your water bill is higher and your energy bill is higher. And, when water moves below the crop's root zone, the fertilizer moves too. This means that your fertilizer bill is higher also. Increased uniformity not only decreases costs, it increases your crop's growth, yield quality, and harvest profits.

## How can you get your system evaluated?

Call the Irrigation Mobile Lab at (661) 281-2729 and ask for Beth.

Beth Hilbe is the soon to be District Manager of the North West Kern RCD and the Mobile Lab team leader. She has trained under Brian Hockett who has over 36 years of experience. She has been performing irrigation system evaluations starting in 2023. Beth graduated from CSUB with a degree in Environmental Resource Management.

The Mobile Lab team uses a software program specially designed by Dr. Charles Burt at the Cal Poly Irrigation Training Research Center.

**To schedule an evaluation, call (661) 281-2729**

You can also drop by the USDA Natural Resource Conservation Service office at 5080 California Ave. #150. Bakersfield, CA 93309.

## Who Sponsors the Irrigation Mobile Lab?

The Irrigation Mobile Lab is sponsored and administered by the North West Kern Resource Conservation District. Support to help lower the cost of an evaluation is provided through these local water districts:

- Arvin-Edison WSD
- Belridge Water Storage District
- Buena Vista WSD
- Cawelo Water District
- Delano-Earlimart ID
- Kern-Tulare Water District
- Henry Miller Water District
- Kern Delta Water District
- Lost Hills Water District
- North Kern WSD
- Rosedale-Rio Bravo WSD
- Semitropic WSD
- Shafter-Wasco Irrigation District
- So. San Joaquin Municipal Utility District
- Wheeler Ridge-Maricopa WSD

The USDA Natural Resources Conservation Service is providing in-kind services for the Irrigation Mobile Lab by providing office space for the staff of the North West Kern Resource Conservation District and providing soil survey information useful to irrigation system evaluations. The NRCS also uses the evaluation within the context of their own Irrigation Water Management Program or EQIP.

**The Mobile Lab will test any kind of system. What are some potential uniformities?**

Furrows.....	85%
Border Strips.....	85%
Hand-move sprinklers.....	75%
Solid Set Sprinklers.....	75%
Micro drip/Fanjet.....	90%

**Kern County growers respond to irrigation system evaluations...**

- *"We have improved our linear system distribution from 67 percent to 85 percent. This is a direct result of recommendations from the Mobile Lab"*
- *"After I made the recommended changes to my drip system, the Lab returned to do a follow-up evaluation. The results of the follow-up showed an 11 percent increase in uniformity"*
- *"Results of the micro tests showed that uniformity and efficiency were up to 90 percent and 89 percent respectively, and the linear was at 90 percent and 96 percent respectively. This gives us a better idea of our operating status and how we can better manage our water."*
- *"The Mobile Lab came out and tested one of our flood-irrigated vineyards. It was an eye-opening experience to see how inefficient my irrigation practices were."*
- *"Brian (Hockett) has been very helpful in evaluating our drip systems, and has carefully explained and interpreted the findings to me."*
- *"As a result of their survey, I was able to see that with a little inexpensive maintenance, we could make better use of our water, get it where we need it and improve the fuel efficiency of our pumping engine."*