Better Irrigation Technology to Help Farmers Boost Crop Yields

In agriculture, every drop of water counts — and making more efficient use of irrigation has long been a priority for the Iraqi government, USAID-Inma and its beneficiaries.

In cooperation with Iraqi farmers and the Iraqi Ministry of Agriculture, USAID-Inma is providing equipment and training to improve irrigation practices with the goal of increasing crop yields and better managing water resources.

During the Oil for Food program from 1995 to 2003, the country imported agriculture produce and infrastructure, including about 3,000 center pivot units. These center pivots used Mid-Elevation Spray Application (MESA). MESA is an out of date technology that has been overtaken by more efficient systems. USAID-Inma began a program to introduce “Low Elevation Spray Application,” or LESA technology. LESA sprayers are closer together and lower to the ground compared to other types of drops. They use less water – and waste less – and require less energy than conventional irrigation practices. LESA is up to 25 percent more efficient than other systems.

Invited by USAID-Inma, an irrigation expert from Texas A&M University brought with him crucial fittings and other equipment, stashed in three large duffle bags weighing 160 pounds, to convert the center pivots. An irrigation expert from Anbar University, Ramadi, Iraq, also assisted in lectures and field training in Baghdad and Babil in mid-September, and later sessions ending October 9 in Erbil. The Texas expert said farmers immediately noticed the difference with the improved units.

“They were very surprised the new system operated at such low pressure. The systems used previously lost so much water due to evaporation and uniformity of application was very low due to wind drift,” he said.

So far 26 MoA extension staff and farmers have benefitted from the training, and sites in seven provinces, each to be outfitted with two LESA systems, have been identified for further trials. Farmers will receive sprinklers, drop hoses, pressure gauges and regulators and soil moisture content measurement devices and instruction on pivot operation and maintenance and irrigation scheduling. “The goal is to convert traditional practices to a more efficient process. With the same quantity of water you can irrigate more area,” a USAID-Inma field specialist said.

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