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Saving Water for the Future

Visit our Web Site at
www.hidcc1.org



Irrigation Catch Basins are now available at Harlingen Irrigation District.

Harlingen Irrigation District began manufacturing irrigation catch basins to meet the demand for poly pipe friendly irrigation turnouts in the Valley. These catch basins are designed to be installed over a typical alfalfa valve and provide a perfect way to attach polypipe to the turnout. The basins are made from 30" corrugated HDPE pipe with a single discharge or double discharge 180 or 90 degree configuration. The discharge sizes are 12" to accommodate 15" polypipe and 15" to accommodate 18" poly pipe. Other sizes and configurations are available upon request. To place an order or request more information contact the Harlingen Irrigation District office at 956-423-7015 or email info@hidcc1.org.



Keep up with the latest news and projects affecting your production with the

Harlingen Irrigation District Newsletter

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2.8 Million Dollar Water Conservation Project Complete

In 2004 the Harlingen Irrigation District began a 2.8 million dollar water conservation project. This project was funded with moneys from the Bureau of Reclamation and NAD Bank along with matching funds from the district. The project included replacing over six miles of canal with pvc pipe, lining two and one half miles of canal with impervious liner, and installing a flow measurement and telemetry system. As of last month the Dis-



36" PVC pipe installation

trict has completed all task related to the conservation project and is quite please with the results. The replacement of canals on the north side of the district has enabled more efficient water deliveries as



Firestone liner installation

well as corrected many maintenance issues. The telemetry system has become the backbone that other projects have been able to build upon (see related 2025 article inside). The Water Conservation Project is one of the many projects under taken to increase water delivery efficiencies and improve delivery to the end user. For more information on our conservation projects visit our website or call the office at 956-423-7015.

Visit us at www.hidcc1.org

Results of an ADI Program Survey from the Perspective of Participating ADI Growers

Texas A&M University-Kingsville, Citrus Center
Shad D. Nelson, Ravi Adla and Heriberto Esquivel

The Agricultural Water Conservation Demonstration Initiative (ADI) program led by the Harlingen Irrigation District and Drs. Shad D. Nelson and Juan Enciso have worked with 17 farmers (collaborators) in the Lower Rio Grande Valley (LRGV) since 2005. The work presented here evaluates the progress of the ADI program. The approach used was through a 30 question survey sent to all 17 collaborating participating growers, of which 13 responded to the survey (representing a 76% response rate).

The collaborators were asked to choose their preferred irrigation method for the different crops. As shown in Fig. 1, most of them preferred furrow irrigation for vegetables and field crops. Border flood is the preferred type for citrus (50%), followed by flood (31%) and drip (19%) irrigation. Microjet spray irrigation was not selected as a preferred irrigation method, although some citrus growers collaborating in the study are using this irrigation method. Irrigation preference is reflective of the prominent flood irrigation practices utilized throughout the LRGV as irrigation in this region was primarily set up to deliver only large quantities of water over a short period of time.

The collaborators selected their preferred method of communicating water conservation results from ADI demonstration sites to other growers. The results are summarized in Fig. 2, where the majority opted for one-on-one communication and newsletter dissemination, followed by visits by others to their on-farm demonstration sites. Surprisingly, workshops were not a preferred method of sharing information and may reflect grower's restriction in regards to time or

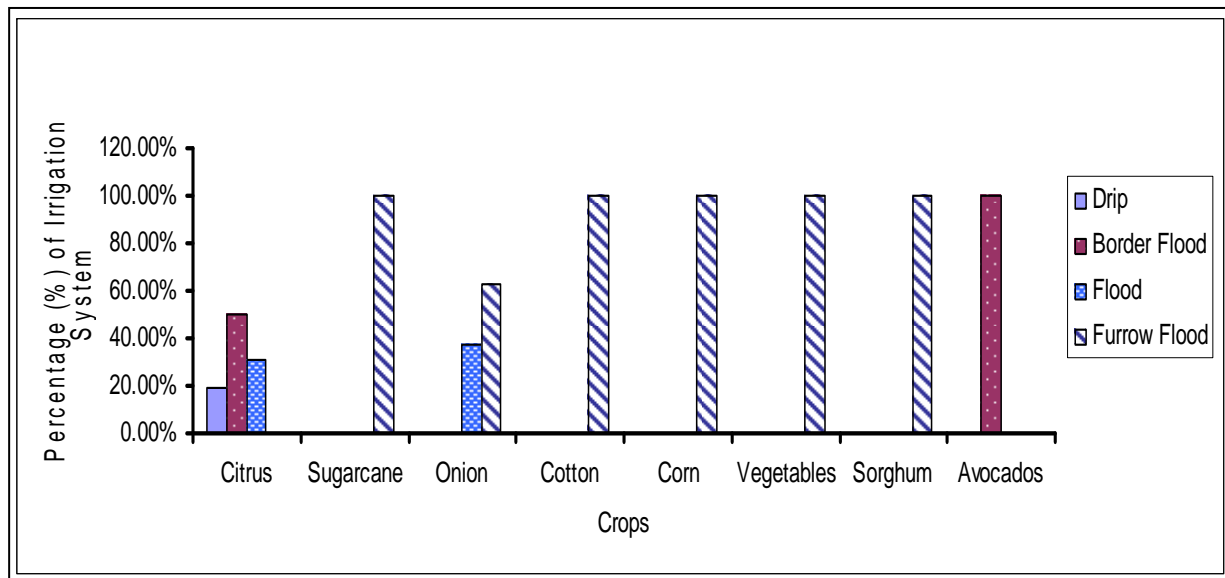


Fig. 1. ADI program collaborator's preferred irrigation system for various crops.

previous poor experiences with other workshops provide by other agencies in the past. These results should be taken into consideration for it may explain why some field-day workshops results in low attendance by growers in the LRGV.

Overall survey results suggest that ADI collaborating participants are highly concerned about water conservation as it relates to the future of agricultural issues. This can be attributed to the collaborators' knowledge regarding the necessity for water conservation, and is reflected by their willingness to participate in the ADI water conservation program.

(Survey results continued)

They feel that the direction of the program leaders is headed in the appropriate direction and have found participation in the program to be a beneficial experience. Collaborators participating in the FARM Assistance Risk Assessment program under the direction of the Texas Cooperative Extension have also found the information to be informative and useful for future on-farm financial decisions.

The entire results of this survey were published as a graduate research project by Mr. Ravi Adla, Department of Agronomy & Resource Sciences, Texas A&M University-Kingsville. These results will be made available to the public as posted on the ADI program website. We anticipate repeating this survey again in a couple years to evaluate whether growers' participating in the ADI program are resulting in a meaningful impact for future water conservation in the LRGV.

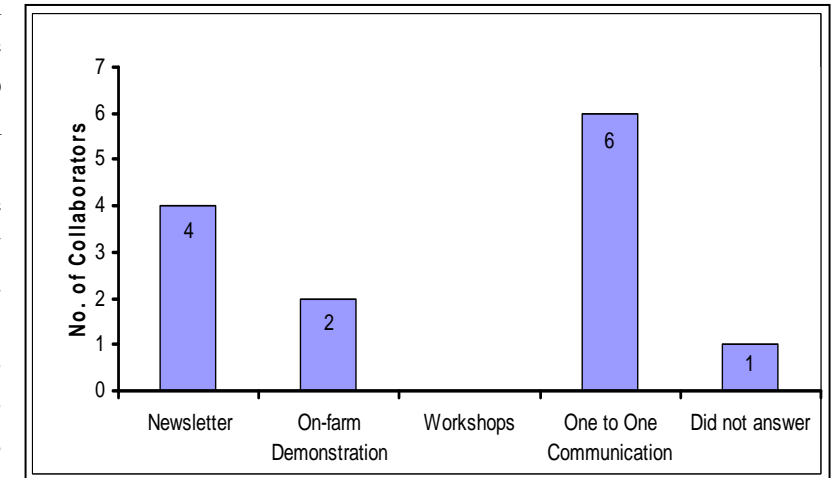


Fig. 2. The preferred communication method by the ADI program collaborators.

HID Completes Water 2025 Project

The district has completed a \$600 thousand dollar project funded through Bureau of Reclamation's 2004 Western Water Initiative Challenge. Our Water 2025 project goal was to purchase and install 225 on-farm delivery meters in the District. These meters would use the existing telemetry system, installed as part of the Lower Rio Grande Valley Water Conservation Program, as the backbone for the project and allow us to provide our farmers with real time delivery information all the way to their fields. As we began to install the original meters planned for the project we ran into consistency problems of water measurement. The meters selected were subject to fouling and would not give us consistent measurements. We began to experiment with a Siemens transit time meter



Siemens meter Installed in concrete pipe

that worked very well but was outside of our price range to complete the project. The district worked with Siemens to modify installation procedures and developed specialized tools that allowed for complete in-field installation by the district. This brought the price per meter down considerably but still did not meet our budgeted requirements. We then re-thought our methodology and mapped a way to monitor and meter various fields with fewer meters. We were able to cut our installations to approximately 100 meters and still be able to meter all of the same sites with a much superior meter and stay within the projected budget. These meters report to our office by way of an RTU sub network (developed by Axiom-Blair Engineering) and our installed telemetry system. The information will be available to our farmers through the district website on a real time basis. The secondary goal is to move the district toward volumetric pricing of water delivered to district water users. We will be running a pilot program of dual accounting this water season to develop and fine tune the metering process.