Water Conservation in Kansas:
An Introduction to the Master Irrigator Program

Benefits of offering a Master Irrigator *Lite* Workshop

Adapting a regionally successful model of a Master Irrigator program can help provide effective training and can enhance access to tools and technical guidance. Results can catalyze and support broader water-use adaptations critical for this region's resilience and vitality. Offering a full Kansas Master Irrigator Program may offer a unique opportunity because this structure will support the co-learning of producers and processors across the beef and dairy supply chain — two of today's fastest growing sectors of Kansas agriculture.

The Ogallala Aquifer supports two-thirds of the state's irrigated acreage, but its decline threatens the future of food and fiber production in the region. This program is an important step toward reducing that decline. Master Irrigator works to establish an enhanced peer-to-peer learning system within the state by helping participants gain knowledge of effective irrigation management and encouraging stakeholder collaboration around data sharing, best practices, and new technologies. The Kansas Master Irrigator Program is essential to ensure the stabilization and efficiency of each unique farming operation.

The idea behind starting with a 1-day, introductory "*lite*" session is to develop an initial steering committee and to agree on a base curriculum. The day promotes the event to future participants and financial supporters. The Master Irrigator *Lite* concept is a critical first step toward establishing a full-fledged program in Kansas. By gaining a better understanding of these conservation-oriented methods, strategies, and tools, farmers and ranchers can make efficient use of the aquifer to produce more crop per drop.

Master Irrigator is an annual program offering more than 30 hours of intensive education about topics including:

- Conservation-oriented methods
- Water management strategies
- Tools in irrigated production systems

Master Irrigator *Lite*: Participants who represent Kansas Farms

bison cow/calf
ALFALFA
CORN COTTON
TRITICALE
potatoes HAY
COW/CALF
WHEAT
SORGHUM SILAGE
DAIRY HEIFER
sorghum

**reported crops grown by participants*

Present for the day's presentations in Ulysses, Kansas, were 22 producers who represented both row crop and livestock operations. These producers reflect the wide variations of Kansas agriculture, from those farming less than 600 acres to others with more than 9,000 acres in production. On the livestock side, participants again described a wide range of farming situations: from 100-head cow/calf operations to 90,000-head feedlots. It's important to note that each farm operation (no matter the size) comes with its own unique set of problems and solutions. While the crops, production, and farm size differed, those seated around the table agreed on a common goal: management practices that can support their economic sustainability while conserving their farms' natural resources.

The other 17 participants attending the Master Irrigator *Lite* session represented a supporting group of partners from various organizations, such as Kansas State University, Kansas Geological Survey, Natural Resources Conservation Service, Kansas Water Office, Groundwater Management District 3, and the Kansas Department of Agriculture. These participants brought two perspectives to the table, as many of them also have their own farming operations.

Producer perceptions

Results from the pre-event survey indicate that producers had clear expectations for the Master Irrigator *Lite* program. Farmers were asked to describe their goals for the day, and there was a consensus among the responses. The top three recorded goals were:

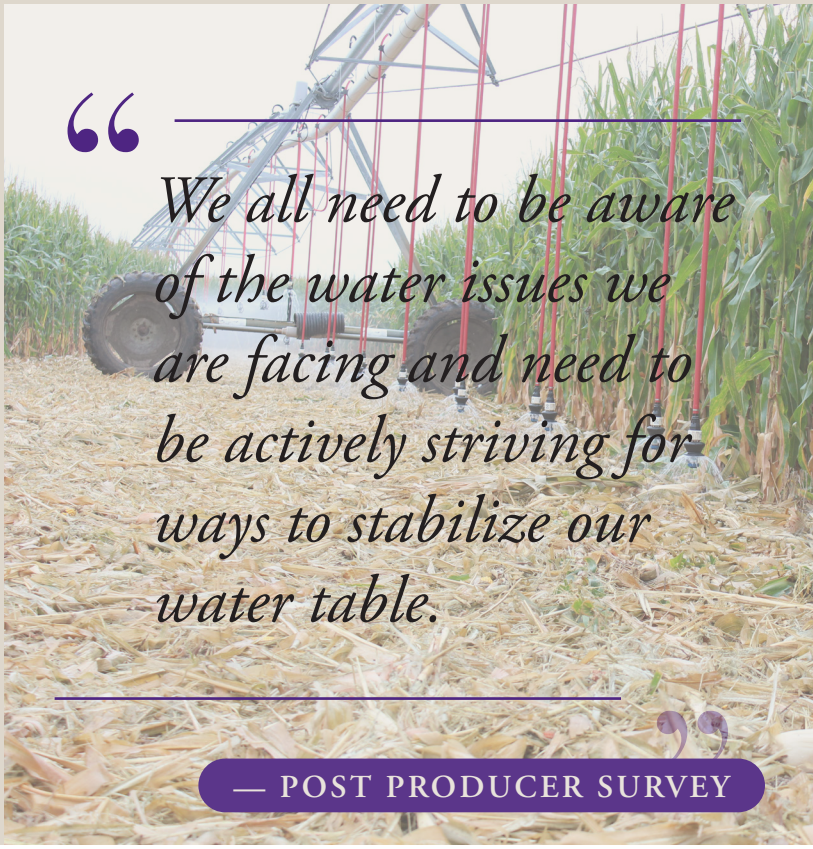
1. to promote water conservation and efficiency;
2. to engage in peer-to-peer collaboration and instruction; and
3. to learn about existing and new irrigation technologies.

Other goals included learning more about the Master Irrigator program in general and finding more information about alternative crops.

Although the Master Irrigator *Lite* program represents only a small fraction of the content of the full Master Irrigator program, participating farmers indicated that they hoped to leave the one-day event with the following:

- enhanced understanding about water conservation,
- opportunities for networking, and
- improved knowledge about irrigation.

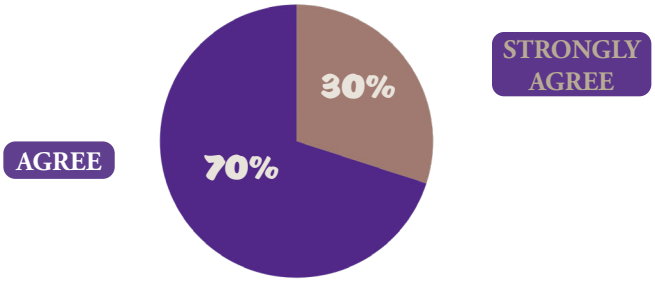
These pre-event survey answers indicate that the participants' goals and needs were aligned.



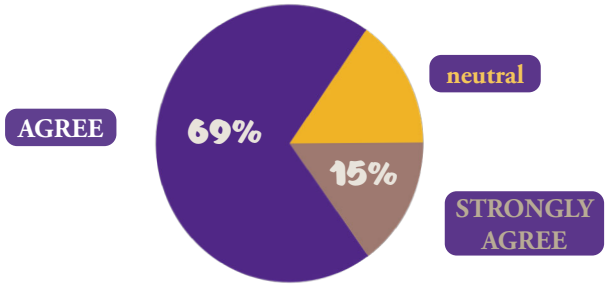
Post-event feedback

Producers who participated in the Master Irrigator *Lite* event responded to the day-long program with a post-event survey, similar to the one they completed when registering. From their responses, the agenda of the Master Irrigator *Lite* program met the goals and needs they indicated in their surveys prior to attending.

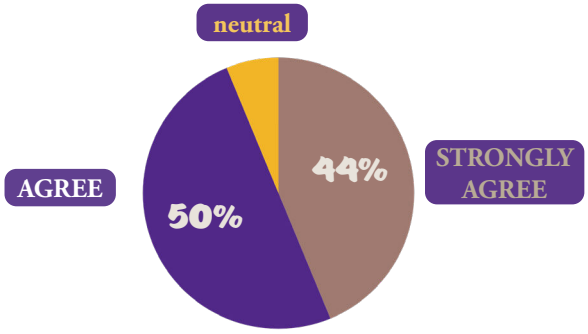
This event helped me learn more about local hydrology and how water use impacts the Ogallala Aquifer.



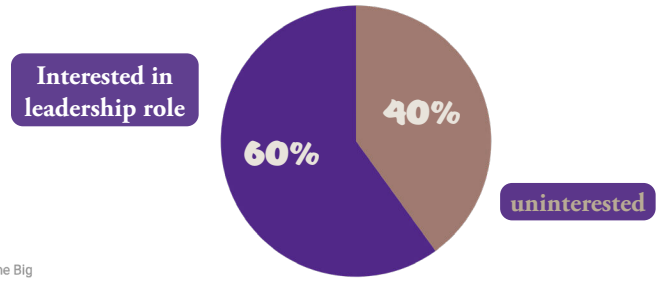
This event helped me expand my knowledge of irrigation and water management tools.



I was encouraged to express my ideas during the program.



Perhaps the best indicator of the success from the day was the expressed interest in serving on an advisory committee to develop and plan the full Master Irrigator Program in Kansas. More than half of the farmers who attended indicated interest in assisting in this leadership capacity.



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