Innovative Idea

Back to School: The Development of a Water College to Encourage Adoption of Irrigation Management Practices

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Introduction/Need for Innovation

An estimated $20 billion worth of the world's food and fiber is produced in the eight states that span from Texas to South Dakota above the Ogallala aquifer (Little, 2009). With approximately 36,080 square miles of the Ogallala aquifer located beneath West Texas, the region's agricultural operations receive much of its water source from the Ogallala aquifer (Guru & Horne, 2000). The necessary and intense use of this water supply combined with the slow recharge rate (Marsh, Peterson, & Williams, 2003) has placed a great emphasis on conserving the water in the Ogallala aquifer.

Established in 2006, the Texas Alliance for Water Conservation (TAWC), is a non-profit organization with the purpose of educating West Texas farmers and ranchers about the most efficient water management techniques and ultimately initiate a behavioral change in how these producers use water for agricultural purposes. To accomplish its purpose, the TAWC uses a variety of communication and educational outlets to inform their target audience about water conservation. These activities include Field Days, Field Walks, board meetings, agricultural conferences, radio programming, and educational tools and information (TAWC, 2016). However, the most popular and largest TAWC event of the year is the Water College. This event is unique in the fact that it is led by producers teaching other producers, just as the TAWC is a producer-led organization. It is innovative in the way these producers are able to tie together aspects of technology, economics, and agriculture in order to educate other producers on best management practices.

The design for this event is draws from Mezirow's Transformative Learning Theory, which is based on the principle that personal experience is an integral part of the learning process (Mezirow, 1991). This theory suggests that a learner's integration of the experience creates meaning, which leads to change in behavior, mindset, and beliefs (Mezirow, 1991). The Water College is geared toward applying the third dimension of the Transformative Learning Theory, which is to create a change in behavior through epistemic codes and critical reflection (Mezirow, 1991). The goal of the TAWC Water College is to provide a positive learning experience that is conducive to facilitating a change in farmer's and rancher's behavior toward water conservation practices in hopes of increasing conservation technology adoption rates.

How it Works

Water College is an instructional meeting for producers, agricultural businesses, and consultants on the most current irrigation management technologies and research available. Since 2015, this event has been held every January in Lubbock, Texas. Water College is a daylong event and includes breakfast with registration in the morning and lunch with a keynote speaker. Experts discuss a variety of topics including water management in corn, cotton and grain sorghum, research results from TAWC research sites, and implications for cattle ranchers. The event is approved for continuing education credits required to become a certified crop adviser through the American Society of Agronomy. Additionally, Water College features a trade show of exhibits

displayed by local supply companies, farm equipment dealers, farm credit businesses, commodity groups, and state and federal government agencies. Having a trade show in conjunction with the informational presentations allows attendees the chance to learn more about concepts or technologies speakers discuss.

One of the unique aspects of this event is the use of sponsorships from local, regional, and national agricultural organizations and businesses to fund the event. This includes commodity groups, seed companies, irrigation technology companies, and farm equipment dealers. Sponsors can choose from four different levels of sponsorship: Platinum, gold, silver, and bronze level.

Results to Date/Implications

The event has grown in the number of attendees and sponsors since its development in 2015. For the 2017 Water College, the venue had to be moved to a larger facility to accommodate this growth. The number of attendees has risen from approximately 50 in 2015 to almost 200 in 2017. Attendee demographics have mainly been male, middle-aged producers, along with a variety of different agricultural industry members such as crop consultants, representatives from seed companies, and extension agents. As the event grows, it has attracted a more diverse group of attendees and sponsors. As the number of attendees increases, additional space may be necessary to accommodate both the information sessions and the trade show.

Future Plans/Advice to Others

Future plans include incorporating presentations about sustainability, organic farming, soil biology, and more efficient practices for maintaining dryland crops. The TAWC is also beginning Texas Agricultural Water Manager certification program in partnership with Texas A&M AgriLife Extension. This certification program's implementation is an effort to recognize and distinguish producers who are making resourceful decisions with their water application. Water College will be one of the main events where producers can obtain credits required for the certification. Advice to others who want to provide this type of event is to feature speakers who will present the information in an engaging manner and to provide some kind of incentive or encouragement for participants to attend and apply information learned. The TAWC does the latter by offering the continuing education and water manager certification credits, lunch, and by inviting producers to join the project after the event.

Costs/Resources Needed

The primary costs and resources needed for this event are the rental of a venue that will accommodate attendees, a stage for speakers, an area for trade show booths, and an area to serve food. Other costs include the meals, production and printing of event programs, notebooks, handouts, and certificates. Additional costs to consider are speaker fees and travel expenses. Currently, attendees do not pay to attend the event. The costs are paid for through sponsorships from agricultural organizations and businesses.

References

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