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Reaching Rural Audiences at Home Using On-line and Portable Extension Water Courses

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Abstract:

Penn State Cooperative Extension has eight dedicated water quality Extension educators working to provide state programs across 67 counties. The price of gas, dwindling number of meeting participants, and the lack of educator time has required the development of new methods to reach the rural audiences of Pennsylvania. As a result, statewide Penn State Extension Water Courses now offered include On-line Pond Management, Private Water Systems and a new portable CD course entitled Natural Gas Extraction and How to Protect Your Private Water Supply. Program delivery approach enables Pennsylvanians to interact with Extension water quality educators without having to leave home or attend a meeting. These courses are all done at the convenience of the clientele.

While program impacts for the first two online courses will be discussed, the focus will be on an emerging education tool - Natural Gas Extraction and How to Protect Your Private Water Supply, with a release date of October 1, 2008. This topic is critical and timely for Pennsylvanians' particularly those located within the Marcellus Shale region of the state where rapid development of natural gas resources infrastructure is occurring. The course consists of two lessons focused on 1) the resources and processes of natural gas extraction and 2) the rules and regulations of gas extraction in Pennsylvania as it relates to protecting water resources. Each chapter is designed as a photo stories highlighting: Pennsylvania water resources (quality and quantity), Marcellus Shale, private water systems, how gas wells are drilled, the hydro-fracing process, methane contamination of water, and homeowner strategies for water protection. Worksheets are provided that enable dialogue between the user and the Extension educator and specialist team. The development of a clientele-driven database of Frequently Asked Questions has been created with responses from the team of Extension educators.

Impact Statement:

Penn State Cooperative Extension has approximately eight dedicated water quality extension educators trying to reach 67 counties. The price of gas, the dwindling number of meeting participants, and the lack of educator time has forced the development of new methods to reach the rural audiences of Pennsylvania. In 2005, three extension educators and Bryan Swistock, Extension Associate on the School of Forest Resources collaborated to develop an On-line Pond Management Course. It consisted of six lessons. For each lesson the participants visit a central website and read a series of worksheets about subjects such as getting to know your pond or aquatic plant control. The participants complete a worksheet that is based on the fact sheets and at the bottom they have the opportunity to ask their own questions about the information

presented or their own pond resources. They email the completed worksheet to the coordinating extension educator, who shares their questions with the team of instructors. Then the coordinator develops a combined answer and sends the worksheet answers back to the client. Clientele can respond to the answers on the next worksheet, so they have six opportunities to correspond with the team. We learned to limit their responses after the first worksheet answers were sent out in the pilot course and email responses from the participants became unmanageable. The sixth lesson is a series of actual Pennsylvania pond case studies that the participants choose from and they must be the manager and decide what to do with the pond. At the end of each course, the questions asked are organized and added to the Frequently Asked Questions section to be shared with future participants. This course won the 2007 Web Based Course Gold Award from the National Association of Natural Resource Extension Professionals.

The On-line Private Water Systems Course operates in a similar way, but there are eight extension educators involved.

There have been a total of 114 participants in the pond course and 29 participants in the On-line Private Water System Course.

Evaluation Data from both of these on-line courses will be combined and shared as well as the lessons learned from using all of the educational methods. For example, in the spring of 2007, seventeen people completed the on-line pond management course evaluation. Twelve (71%) of the respondents stated they got a great deal out of the course and would enthusiastically recommend it to others. Nine (53%) stated they tested their pond water quality during or after the class and six (35%) stated they measured their pond fish population structure as a part of the class.

The Portable Extension Classroom on Gas Well Drilling and Private Water Supplies is a smaller version of the On-line course, which is being placed on a compact disc. There are two lessons and two worksheets provided on the disk. The clientele can choose to be interactive by completing the worksheets and returning it to the water extension educator who provided the disc. They have sixty days from purchase to implement the interactive portion of the course. There are eight extension educators cooperating on this team. One of the goals of this program is for extension educators at the county level to be able to generate cost recovery dollars to support future extension water programming efforts. This class will be offered on October 1, 2008, and impact statements, evaluation comments and lessons learned to date will be shared.

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