

# Hands-On Education Tools: The FUNdamentals of Agricultural and Urban Non-Point Source Pollution

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## Situation:

Most people enjoy strolling along, fishing in or just watching small fish swim in a clean stream. However, when that soda bottle and Styrofoam cup floats down the stream or that muddy plume clouds the water everyone starts pointing fingers. To help alleviate the finger pointing, the Agricultural Pollution Prevention (AgP2) program at The University of Georgia has developed a hands-on educational program for all watershed citizens to explain sources of non-point source pollution and how each person in a watershed contributes.

## Objective:

The objective of this program is threefold:

1. Provide citizens with an active learning educational experience other than the typical lecture or on-screen presentation.
2. Use hands-on educational methods that allows citizens to get a better understanding of how their actions along with the actions of others in a watershed contributes to the overall environmental condition of the watershed; and
3. Provide a better format for the formation and explanation of questions.

## Partnerships:

With this program, partnerships have developed with farmer organizations, teacher groups, non-profit groups and local communities. The partnerships provide opportunities to educate persons that may not use the Extension Service on a regular basis.



**P2AD**

## Methods employed and products produced:

The methods employed in this program consist of hands-on educational tools to demonstrate how the contribution of one person can positively or negatively impact a stream or entire watershed. Some of the tools used to illustrate these affects are surface and groundwater models, a tabletop rainfall simulator, "Low-Cost" water monitoring kits, and various other activities to get the citizen involved.



Demonstrating Groundwater Flow Model to teachers in summer program



Poultry litter spreader calibration to assist farmers in applying proper amounts of nutrients



Student using water monitoring kits to determine macroinvertebrate population in a local stream



Discussing rainfall simulator and the impacts of cover to control erosion



Demonstrating surface water model to a 4-Her that further used model to teach other 4-Hers

## Integrating research, education and outreach:

Through use of the models, some of the methods being researched can be "installed" on the models to provide citizens with a visual and dynamic look at how they look and react to protect water quality. The program provides education and outreach in a fun, hands-on method that allows the citizen to be involved and thereby aids in their ability to learn what is being taught.

## Leveraging Funds:

The program was not developed to leverage funds; however, through the use of the models, other education based programs, County governments, and others have purchased models or have requested plans on how to build the models.

## Outputs and Outcomes:

These tools allow participants to be actively involved in evaluating water quality impacts and visually seeing what things affect water quality. These tools allow us to use active learning rather than lectures to explain non-point source pollution sources and solutions.

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