

## Mapping farms, futures

### Dover high school program is gaining interest of students and emergency responders.

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**At bottom:** • [WHAT THEY SAID](#) • [PARTICIPANTS](#)

Jun 13, 2007 — What if there was a program that could help fight fires faster, improve transportation, spark an interest in kids who don't want to learn and produce high school graduates qualified to enter an advanced technological job market?

As idealistic as that sounds, Dover Area High School has created a tool to help make it happen.

It's based on a Geographic Information System, which stores and manipulates geographical data on a computer.

A few months ago, Dover Area High School agriculture teacher Ron Weaner and technology education teacher Charles Benton attended a G.I.S. workshop sponsored by Penn State University and the state's FFA and Department of Agriculture. A grant from Mantec Inc. will help reimburse the district for the training and related expenses.

In conjunction with Adventures in Technology - a program that partners schools with employers and encourages careers in technology fields - Weaner and Benton used the training to teach a G.I.S. pilot program to Dover students.

Students in Weaner's class obtained and compiled information from two farms. They used aerial photos and G.I.S. technology to create maps to be used by emergency officials.

The laminated maps show information including the location of water sources, pesticides and fuels and a key scale. They are put into a container that can be installed on a light pole at a farm and used by emergency responders.

Knowing the location of certain substances can determine how a firefighter extinguishes flames. For example, rather than using water to fight a fire near pesticides - possibly causing chemicals to run off into creeks - an alternate method could be used.

Benton's students learned to collect authentic data, solve problems and be aware of their environment and community.

It is important for students to learn about G.I.S. because it provides the No. 2 job opportunity in the U.S., Benton said.

"There is such a shortage of people who can actually use and have the skills necessary to produce the data and maps that will help our society," Benton said in an e-mail.

Linda Spahr is a Penn State York Extension educator and a member of the York County Animal Response Team. She acts as a resource person for emergency responders in agricultural settings.

"I love it," she said of the Dover mapping program.

Dover is the only school district in the county - maybe the region - to teach the farm mapping program, she said.

"It can save anywhere from five to 10 minutes to an hour when it comes to putting out the fire," Spahr

said. "Agriculture in York County is still our No. 1 industry."

The maps can also help firefighters who have never been on a farm, she said.

Spahr said she hopes other districts will follow Dover's lead, teaching the program and working with local firefighters and municipal officials.

Farmers should be receptive to the idea, she said. Information obtained for the maps is used only for emergency purposes.

Having the map could lower a farmer's insurance rates, Spahr said.

The pilot project helped usher the adoption of G.I.S. in the high school curricula, with the first class set for next spring, said Dover Area school board member Rob McIlvaine - who is also vice president of Mantec Inc.

"It's extremely exciting," he said. "G.I.S. is one of those bridging things. ... It's technology, but it can be applied to a number of different areas."

## WHAT THEY SAID

Dover Area High School students who took classes involving a geographic information system learned to use state-of-the-art technology to benefit firefighters, farmers and the community.

- "I never heard about any of this stuff until I took the class." - Zane Donnelly, 16, of G.I.S. and agricultural concerns firefighters must address.
- "It's pretty cool." - Josh Lamparter, 16. He hadn't realized how important the location of fuels, pesticides and water sources are to firefighters. "I thought they just put out the fire."
- "I work on farms in the summer." - Alan Glickman, 15. He said he will teach others on the farm about what he learned in the class.

[top](#)

## PARTICIPANTS

Dover Area High School students who participated in the G.I.S. classes:

Justin Barlup

Cory Crone

Kevin Reed

Alan Glickman

Zane Donnelly

Josh Lamparter

Markus Couch

Cody Miller

Brian Borrer

Dustin Smith

Kevin Kitlinski

Cory McCoy

Taylor Sealover

Jeremy Hubbert - an FFA student who made maps for area farmers for his senior focal project.

[top](#)

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