

GIS Could Reveal A Lot About Your Farm

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MILLERSVILLE (Lancaster Co.) — Think this is science fiction?

In a year's time, using computer technology, if you're a farm insurance salesman, simply plug a disk into a computer, call up an area in the county, point and click, find all the farm buildings that are at least 500 feet from a stream, tell the computer to print out a mailing list, and market your policy to clients instantly.

In a few years' time, after wondering what that new structure is on a neighboring property, call into county offices by computer, call up the maps, point and click, and find out who owns it, when it was built, and how much it's worth.

If you think it's science fiction, you're wrong. It's all real. In 1996, you could purchase this technology, according to a senior planner with the county planning commission.

A. Jon Hallas, senior planner, administration and information services with the Lancaster County Planning Commission, demonstrated the new technology on Thursday afternoon to 50 individuals associated with conservation resource groups in the state.

Hallas spoke at the annual meeting and technical session of the Keystone Chapter of the Soil and Water Conservation Society at Millersville University.

Using a 486 laptop with Windows, Hallas demonstrated the Geographic Information System (GIS) software, called Arc View 2, developed by Research Inc., in Redlands, Calif. The GIS is a computer system for holding and using information describing places on the earth's surface, said Hallas.

The system, now in the third

year in development, uses information provided by "orthophotography." An airplane flies over the entire Lancaster County, taking aerial pictures of land. The pictures are "digitized" and converted to pixels. The software contains 640 tiles of such pictures, each representing an area measuring 5,000 by 9,000 square feet.

In an demonstration using a "mouse" device to point and click, Hallas retrieved information in detailed form, including five-foot contours, buildings, roads, ponds, streams, and other physical characteristics of a group of farms in the Quarryville area. Also, he was able to show parcels, perimeters, and maps. Soon, the database on owners will be complete, and with a simple point and click, the computer user can retrieve ownership and information on any type of land.

Hallas pointed out that this is all public information available at the county courthouse that was converted for use in the computer program.

Regarding some of the privacy issues owning such software could create, Hallas said, "I wouldn't be surprised if people have questions about accessing this data. But it's all public information available at county offices."

The software would be valuable to conservation districts in drawing out plans, for emergency services such as 911 and fire and rescue teams, and planning committees.

Eventually, for a price, information could be "customized" for commercial industry. The "intelligent" system could assemble mailing lists for those who want to market products to select clients.

Soil information could be digitized and also incorporated into the system. Memory size of the infor-

mation would determine the purchase price, according to Hallas.

The system will be used at the county Natural Resources Conservation Office (NRCS, formerly SCS). John Bert, of the county NRCS, told those attending that the five-foot contour features of the software is valuable for pre-planning terraces.

Also at the meeting:

Alan Musselman, of the Lancaster Farmland Trust, told those present that ag preservation has "become the backbone of protection of the countryside from growth and development."

Musselman spoke about the ongoing success of the Trust in its effort to work "one-on-one" with farm families to cultivate a long-term relationship with conservation easement.

The county's private, nonprofit Trust numbers 2,300 members. The county organization has a \$240,000 annual operating budget, with an additional land preservation fund to acquire farms and conservation easements.

In under six years, more than 1,110 land trusts have been established around the country, according to Musselman. Also, he provided successful examples of easements throughout the county in a wide variety of situations.

He said the Trust is working to help pass a law, similar to that used in only two states, to make farmland subject to conservation easement exempt from property taxes at the local level. The two states that have such laws are Maine and Maryland.

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resenting conservation-minded individuals, plans to have the activities and resources of the organizations branch out into the private sector. Included will be emphasis on natural resource conservation, including recycling, composting, and other issues. According to Zwally, featured will

be more emphasis on sustainable agriculture, organic farming, and other issues at the state level.

The association is open not only to conservation district and NRCS personnel but to farmers and agri-industry representatives.

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PSU Staff Complete 3rd Edition Dairy Manual

ITHACA, N.Y.—Wouldn't it be nice to have one book containing the most current information necessary to manage a modern dairy farm? Well, it's here!

Faculty and staff of The Pennsylvania State University have put together the third edition of the *Dairy Reference Manual*, a compendium of information about all facets of dairying—from young-stock to nutrition to housing.

The *Dairy Reference Manual*, NRAES-63, is designed to allow quick access to facts about such topics as balancing a ration, designing a natural ventilation system for a freestall barn, and identifying the causes of and control measures for mastitis.

The manual will be invaluable to extension agents, consultants, and farm planners for advising producers about a specific problem; veterinarians, engineers, manufacturers, and salespeople who want condensed information; and writers and educators who want to look up key facts—in short, anyone wanting a comprehensive, easy-to-use desk reference about dairy farming.

The 293-page, wire-bound manual contains thirteen chapters: farm management, dairy housing, handling and behavior, young-stock and dairy replacements, dairy nutrition, physiology and disease, reproduction, dairy cattle improvement, milking equipment, milk marketing policy, veal and dairy beef, dairy goats, and the 4-H dairy program.

Much of the information is con-

tained in 240 tables. Eighty-eight illustrations show freestall barn layouts and dimensions; designs for pens, ventilation systems, and handling equipment; and much, much more.

The chapters are supplemented by three appendices: one lists conversion factors, a second gives equations for calculating grain storage capacity, and a third gives advice about how to choose a dairy computer. A list of abbreviations and acronyms and suggested readings for each chapter conclude the book.

The *Dairy Reference Manual* was compiled by the following faculty and staff members of The Pennsylvania State University: Richard S. Adams, professor emeritus of dairy science; John W. Comerford, associate professor of dairy and animal science; Stephen A. Ford, assistant professor of agricultural economics; Robert E. Graves, professor of agricultural and biological engineering; C. William Heald, professor of dairy science; Arlyn J. Heinrichs, professor of dairy and animal science; William R. Henning, associate professor of animal science; Lawrence J. Hutchinson, professor of veterinary science; Virginia A. Ishler, extension assistant in dairy and animal science; Robin B. Keyser, former assistant professor of agricultural and extension education; Michael L. O'Connor, professor of dairy science; Lawrence W. Specht, professor of dairy science; Stephen B.

Spencer, professor of dairy science; Gabriella A. Varga, associate professor of animal science; and Robert D. Yonkers, assistant professor of agricultural economics.

The *Dairy Reference Manual*, NRAES-63, is available for \$40 from NRAES, Cooperative Extension,

152 Riley-Robb Hall, Ithaca, New York 14853-5701.

Postage and handling are included for U.S. orders only. Orders from outside the U.S. must be prepaid in U.S. funds. Quantity discounts are as follows: 10-49 copies, \$32 per copy; 50-99 copies \$28 per copy; 100-499 copies \$24

per copy; and 500 or more copies, \$20 per copy.

Please make checks payable to NRAES. Phone (607) 255-7654, fax (607) 255-4080, or e-mail nraes@cornell.edu for more information or for a free publications catalog.

Sustainable Agriculture Board Holds First Meeting

HARRISBURG (Dauphin Co.) — State Agriculture Secretary Charles C. Brosius chaired the first meeting of the Pennsylvania Board of Sustainable Agriculture.

The board will meet quarterly to assist the department in developing a long-range, sustainable plan for Pennsylvania's number one industry.

A sustainable agriculture plan would enable farms to function more efficiently and profitably by making the most use of supplies already on the farm. Farms would then be in a better position to continue operating by supporting themselves over time.

"Gov. Ridge and I want Pennsylvania's farming tradition to continue," Brosius said. "We can do that if we pay attention to our resources and profitability."

Act 129 of 1994 established the Board of Sustainable Agriculture to review and issue grant and loan

applications in accordance with guidelines set forth in the Act.

The board is exploring funding sources for a grant and loan program to help farmers develop and use sustainable agriculture practices.

The 16 members of the board and their affiliations include the following: Charles C. Brosius, agriculture secretary, board chairman; Senator Roger Madigan, Senate Agriculture and Rural Affairs Committee chairman; Senator Pat Stapleton, Senate Agriculture and Rural Affairs Committee minority chairman; Representative Raymond Bunt, House Agriculture and Rural Affairs Committee chairman; Representative William Lloyd, House Agriculture and Rural Affairs Committee minority chairman; Mary Ann Keith, agricultural administrator, Mid-State Bank; Dr. Elwin Stewart, Penn State

Cooperative Extension Service; Dr. Terry Schettini, Rodale Institute; Preston Boop, PA Association for Sustainable Agriculture; Garry Van De Weert, Bradford County farmer using sustainable agricultural methods; Allen Matthews, Washington County farmer using sustainable agricultural methods; Paul Shaw, Walnut Acres Farms, Snyder County; Dr. Steven Fales, The Pennsylvania State University; Robert Junk, President, Pennsylvania Farmers Union; James Benner, Pennsylvania Farm Bureau and Tim Bowser, Pennsylvania Association for Sustainable Agriculture.

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