

# Schuylkill Countians build solar water heater

**MARLIN** — Christopher Fried, Energy Consultant, demonstrated how to build a low-cost yet high-quality solar hot water heater to 50 participants who attended the two-day workshop held this past weekend at the south Vo-Tech building in Marlin.

All 50 people actually assisted in the construction of three solar hot water heaters. The system utilizes a 6 foot by 8 foot modular collector with copper absorber plates and fiberglass glazing.

The tank has a 50 gallon capacity and copper heat exchanger. The system is designed to provide approximately 50 percent of

the hot-water needs of a family of four.

A fractional horsepower pump circulates pure water through the collector, and is automatically controlled by a differential thermostat.

When heat is sensed at the collector, the pump is activated, and at the end of the day, when clouds are heavy, the pump shuts off. When off, all water from the collector drains into the storage tank, thus allowing nothing to freeze.

The installed material cost is roughly \$600.

The workshop was not only designed to show the people how to build a solar hot

water system; but also to encourage the utilization of other renewable-energy devices, convince people to carefully examine the ways in which they consume and waste energy and provide guidelines so that people can establish priorities among energy producing and conserving investments or actions.

The workshop was not only highly educational, but also brought people together with varied backgrounds and skills in a friendly atmosphere. The workshop was organized in cooperation with the Schuylkill County extension service.



Christopher Fried, energy consultant, explains the steps involved in constructing a solar collector to a capacity crowd in Schuylkill County.

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## Horse workshop to be held

**HARRISBURG** — The third workshop in a series of youth horse clinics and adult leader workshops, sponsored by the American Quarter Horse Association and the American Junior Quarter Horse Association, will be held May 10 and 11 in cooperation with the Pennsylvania Cooperative Extension Service and Pennsylvania State University, according to James P. Gallagher, Penn State animal extension specialist.

Horse Sense III will feature demonstrations and training sessions regarding competition in several AQHA youth events, such as Showmanship at Halter, Western Horsemanship, Hunt Seat Equitation, etc. Horse health care and

proper nutrition will also be presented, and educational and job opportunities within the horse industry will be discussed. Young people as well as adult should find the program interesting and informative.

The first clinic, Horse Sense '79, held September 22 and 23 at the University of Illinois at Champaign, proved to be extremely successful, as 250 people from nine states attended. Louisiana State University at Baton Rouge hosted the second clinic January 5 and 6 which welcomed 400 horse enthusiasts. Both clinics focused on horsemanship and management skills.

The series of workshops to be conducted across the United States will provide

educational opportunities to youth, regardless of their background or breed affiliation, and will serve to strengthen the understanding of the principles of horsemanship and equine management.

Anyone interested in horse is encouraged to attend.

Registration will begin at 8 a.m. Saturday, May 10 at the Pennsylvania Farm Show Complex in Harrisburg. A \$3 fee will be assessed each youth, and \$5 each adult. For more information contact Nancy M. Kadwill, County Agent, 400 Markley Street, Norristown, Pennsylvania 19401.

## Shorthorn Assoc. elects officers

**FREDERICK** — Henry L. Dodrer, Jr. of Littlestown was recently elected to the office of president of the Maryland Shorthorn Association.

The Pennsylvania man will be assisted in his responsibilities of the

association by Duane Harper, Gaithersburg, Maryland, who was elected to the vice-president's post.

Serving as secretary-treasurer for 1980 is Wayne Neely, Frederick, Maryland. George Bowman, Jr., West Friendship, Maryland and Thomas E. Smith, Frederick, Maryland were elected to a three-year term as directors of the association.

They will join Edwin A. Hevner, Union Bridge, Maryland and Raymond D. Ediger, Frederick, also members of the board.

Officers of the Maryland Junior Shorthorn Association are: Dennis Warfield, Woodbine, Maryland, president; Susan Dodrer, Littlestown, vice-president; Patty Bowman, West Friendship, Maryland, secretary-treasurer; Kristie Harper, Gaithersburg, Maryland, publicity; and George Bowman, West Friendship, Charles Seal, Gaithersburg, and Stephen Dodrer, Littlestown, directors.

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