Solar energy eyed for broiler industry

COLLEGE PARK, Md. — Despite its relatively high costs, solar energy will reduce the amount of liquefied petroleum (LP) gas used in the U.S. poultry (broiler) industry, University of Maryland scientists say.

The scientists are part of a multidisciplinary Maryland Agricultural Experiment Station team studying the use of solar energy as a replacement for conventional fossill fuels in the broiler industry.

"Finding alternative uses for overflow energy...and reducing fixed costs of solar facilities are the keys to economic feasibility of solar energy in broiler production," says a conference report by agricultural and resourse economics professor Jarvis L. Cain.

"We've already done some work on cost reduction," Cain explains. Excess energy produced by the experimental solar power system could be used for heating farm houses and buildings or drying grain, Cain says.

Adapting broiler management procedures to use the solar energy system a greater portion of the year and modifying the system to reduce fixed costs are additional possibilities, Cain says.

His economic analysis of the heating cost of raising broilers under a solar energy system as opposed to a conventional LP gas heating system revealed that the cost per 1,000 birds was $54.43 under the first and $13.54 under the second.

While preliminary findings indicate that solar energy is a costly alternative, Cain and his associates are convinced that the use of the sun's energy for poultry production and other farming activities looms as a future possibility.

"I think we can look forward to the increased use of solar energy in agriculture" says research team leader Kenneth E. Felton, associate professor in the department of agricultural engineering. He says researchers working at the environmental research broiler facilities at the university's poultry research farm near Salisbury, Maryland, are considering a number of approaches aimed at lowering the cost and improving the efficiency of solar energy systems.

Felton says skyrocketing costs and growing scarcities of conventional fuels are other critical factors that will speed the adoption of solar energy on the nation's farms.

The poultry-related energy research is funded by the Maryland Agricultural Experiment Station, the U.S. Department of Energy, and Delmarva Poultry Industry, Inc. The studies are a phase of a more than five-year effort by university researchers to find ways of stemming rising energy costs in poultry production.

Maryland broiler producers spend $43.5 million on heat, light, and power to produce 397 million broilers in 1978. Energy added 11 cents to the cost of each broiler produced.

University researchers believe energy can be conserved and used more efficiently in poultry production without sacrificing product quality.

Earlier experiments at the Salisbury farm have improved the functional efficiency of the experimental solar energy system. The system initially used hot water to store and transport collected energy, but has been modified to a heated rock storage and air transport system.

Increased energy efficiency resulting in savings of more than 78 percent of the LP gas normally used by the facility occurred when limited area brooding (raising the broiler in a reduced area) was combined with solar energy heating.

Researchers also have experimented with modifying the energy used to light and ventilate broiler growing facilities. Some of the tests have resulted in substantial savings without adversely affecting the health or growth of the broiler.

Group to compete in square dancing

READING — Competing in the 23rd Annual Folk Dance Contest at the Pennsylvania Farm Show in Harrisburg on Tuesday evening, January 8, is the Marion Grange group from Berks, reports County Agent J.F. Haldeman.

The contest, which is open to all clubs, groups and organizations in Pennsylvania, should prove a very colorful spectacle. Groups from 18 Counties have been accepted in the competition.

The Marion Grange group has been practicing the numbers which the entire 60 sets in the competition will be performing together.

The Danish system of judging is to be used, which may result in more than one set finishing in the Blue Ribbon Class.

In order to win cash awards, the sets will first perform enmass, then the judges will select the better dancers to compete for Blue, Red, and White ribbons in each division.

Any number of sets may be placed in each category by the judges.