

Compost pile heats greenhouse

Felton woman part of federal experiment

By Ali Cheeseman
Delaware State News

FELTON — One Felton resident has taken composting to the next level and turned an unheated greenhouse into a federally funded experiment.

Kathy Brooks was awarded a \$2,744 grant through the U.S. Department of Agriculture's Sustainable Agriculture Research and Education program for a greenhouse heating system.

"A lot of people are struggling to pay for heating green-

houses and farm structures," Ms. Brooks said. "This is a possible solution to some of our energy problems."

Rising greenhouse heating costs have become burdensome, she said, and the experiment will compare the cost of constructing and maintaining a compost heating system to installing and operating a propane heating system.

"I knew I had to have some kind of heating system," Ms. Brooks said. "However, electric is expensive and propane causes allergies."

The compost pile uses wood chips, a winter cover crop, a small amount of manure and a metal reservoir filled with water

in the center of the pile.

A sump pump in the reservoir connects to plastic piping coiled within the pile to absorb heat in the circulating water, Ms. Brooks said.

The piping connects to hoses that enter the greenhouse, travel in a zigzag pattern under the growing tables and transfer heat to the plants and air, she said. The hoses form a continuous loop and exit the greenhouse and return to the pile to start the process again.

"I think the project will highlight how you can use waste products that are local, are readily available and are reusable.

See Compost — Page 4



Delaware State News/Dave Chambers
Kathy Brooks stands next to the compost pile used to heat her Felton greenhouse. Ms. Brooks is part of a federally funded experiment to compare the cost of constructing and maintaining a compost heating system to installing and operating a propane heating system.

Compost

Continued From Page 1

to heat a greenhouse," said Andy Wetherill, Delaware State University Cooperative Extension educator.

Mr. Wetherill was the technical adviser who worked with Ms. Brooks to write her grant proposal.

"It reduces the cost of production, especially during the cool periods of the year."

Ms. Brooks will have a head start to growing plants for her business, Misty Morning Herbs and More, due to the elevated temperature in the greenhouse, which she estimates will maintain a range of 115 to 140 degrees.

"This project will eliminate the need to move the plants daily and extend the greenhouse growing season, allowing for longer and more varied production," she said.

She came up with the idea because she was constantly moving seedlings back and forth between her house and the greenhouse, when low nighttime temperatures and cold days threatened to freeze the plants during the spring.

"It has the potential to increase farmers' profits because you could increase production over longer periods of the year," Mr. Wetherill said. "The nice thing is that it is cost-effective. Your energy cost is reduced significantly while you're able to increase production."

The project is still evolving, Ms.



Delaware State News/
Dave Chambers

Kathy Brooks of Felton shows off the heating system she has devised to keep her herbs warm inside her greenhouse.

Brooks said, with this being the research year.

As part of the grant requirements, she has and will be traveling to various places to educate people on her project through presentations and farm visits.

"I see more and more people doing it," Mr. Wetherill said. "It is a cheap way of heating the greenhouse and of using energy with locally available products."

"When people realize they can increase production while keeping their costs low they will eventually adopt it."

Staff writer Ali Cheeseman can be reached at 741-8250 or acheeseman@newszap.com