## More women joining U.S. agricultural research programs

There's nothing unusual about market, armed with master's and that.

But the "micro" loaves of bread she bakes in her Hutchinson, Kansas, laboratory wouldn't go far at the supper table. Each weighs 10 grams, a third of an ounce.

Ely is a cereal chemist, a researcher who plays an important role in development of new wheat varieties which will help American farmers meet increasing demand for high-quality food grains. She tests and evaluates milling and baking qualities of experimental wheats developed by Pioneer Hi-Bred International, Inc., plant breeders.

Ely also is one of the growing number of women who hold top positions in agricultural research. Female representation in agricultural research and development programs is on the rise today, just as it is in other farm-related occupations.

There are several reasons why university officials believe this trend will continue.

More women are working outside the home, increasing the pool of available workers for jobs in all sectors of American education, business and industry. Legal and cultural changes that have occurred in the past two decades also have opened the doors for women to enter "non-traditional" careers.

On top of that, agriculture today is an attractive industry. Food production will take on increasing importance as world population grows; some experts believe that food will play the same role in the 1980s and '90s that oil played in the 1970s.

Finally, enrollment by women in agriculture-related college majors skyrocketed during the last decade. Women accounted for about 2 percent of the total enrollment in agricultural schools in 1969. The proportion had risen to 30 percent by 1977. Total enrollment in agriculture majors has declined since it peaked that year, but the percentage of women has remained nearly constant.

Those women who continued

CEDAR RAPIDS, IOWA — their studies at the graduate level Karolyn Ely enjoys baking. are starting to enter the job doctoral degrees and prepared for demanding technical professions.

"We're just now beginning to see women apply for faculty positions at the Ph.D. level," says Louis M. Thompson, associate dean of agriculture at Iowa State University. "It will take five or 10 years before we really begin to see a significant number of women faculty members in agricultural schools.'

However, neither Thompson nor Rick Daluge, assistant dean of agriculture at the University of Wisconsin, foresee a dramatic increase in the number of women available for high-level research jobs, either at public institutions or in agribusiness.

"There simply aren't that many women doing advanced work in agriculture-related majors," Daluge says.

The numbers back him up. Though surveys show women now account for about 30 percent of total agriculture school enrollment, less than 5 percent of the ag school graduate students are women.

That's why there are relatively few women with agricultural research jobs like Karolyn Ely's. She is one of four women who hold high-level positions in the Pioneer Plant Breeding Division, the Des Momes, Iowa-based company's research and development unit.

"I've always liked plant sciences, but when I was going to school in the '60s my interests were in more traditional areas of study for women," says Ely.

A native of Kansas, she has a master's degree in food and nutrition research from Kansas State University. She joined the research staff at Hutchinson in 1970. Her job is the only one of its kind in the Pioneer research program, primarily because of the crop with which she works.

'Wheat is unusual among the major grains because it is used primarily for human foods rather than animal feed and must meet unique quality criteria," she explains. "Just as farmers are interested in yield, disease resistance and straw strength, millers and food processors are interested in protein content, test weight and flour yield."

Ely's job is demanding, especially because she has such small amounts of grain to test.

"We're examining wheats from breeding programs, so we often have only a small sample to work with," she says. "Many of our quality tests and the equipment we use are designed for these small samples, so we can begin testing during early generations."

Whether a new variety will continue in the testing program depends largely on Ely's quality assessment. If an experimental line can't meet minimum standards, there's little use investing time in further development. If processors can't use the new wheat, there's no market for it and farmers won't plant it.

'My work is challenging, and it's also very interesting," says Ely. "Every wheat line has its unique characteristics; I enjoy finding out what they are.'

Another Purdue graduate is Lou Nash, manager of the Pioneer alfalfa research station at Litchfield, Michigan. Nash, who is completing her master's thesis at Purdue, received a bachelor's degree in general science and education there and managed a laboratory for a chemical company in Omaha, Nebraska, for three years before returning to continue her post-graduate studies.

She joined Pioneer in March 1981 to establish the alfalfa station.

"My work involves testing and evaluation in the development of alfalfa varieties," Nash explains. "I have test plots at Litchfield, at Marlette in the Michigan 'thumb,' and at Tipton, Indiana. I spend a lot of time on the road, especially in the summer. I enjoy the mobility and flexibility of my job. I can be out with people when I want to be. but I also can work by myself when I want to.

Nash and the other researchers

say the fact that they are women in jobs traditionally done by men has caused them few problems.

"Sometimes mechanics at the local garage have a hard time believing I'm the station manager when I bring in the forage harvester for repairs," say Nash. 'But there's-no problem with the Companies. They accept you for your talents experience and expect you to do the job. And having people available as backup information sources is a big help."

"Whether you're a male or a

female is not an issue," adds Albertsen. "You're treated as another professional in the business."

According to Ely, "What's happening in agribusiness is a reflection of what has happened in society. People are taught to live up to their potential, and there's less emphasis on what were traditionally men's jobs or women's jobs.

"And that's the way it should be."

## **Red Rose announces judging results**

LANCASTER - The Red Rose 4-H Beef Club held their April 7 meeting at the Farm and Home Center to announce results of their practice judging meet at Penn State.

The junior team consisting of Michelle Dean, Fritz Frey, Carol Ginder, and Emily Weaver took first place

Carol Ginder placed second and third in individual judging.

Speaker for the evening was Gregg Cougar, former herdsman at Perdue University. His topic was "Feeding and Caring for Show Steers.'

The next meeting is scheduled for May 5.

## **4-H** exchangee goes to United Kingdom

DOYLESTOWN - Virginia Walton, 21, daughter of Mr. and Mrs. Harvey Walton, Doylestown, departed for the United Kingdom on April 15 as a selected representative of the International 4-H Youth Exchange Program.

Walton will spend six months living for two weeks at a time with approximately 12 different host families in England, Scotland and Wales, while gaining better knowledge of the customs and establishing good will relationships between people.

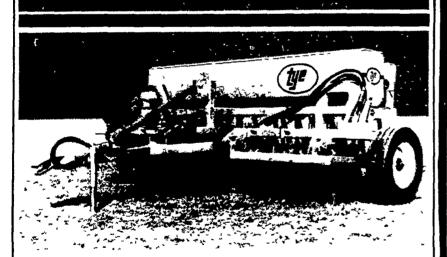
The International 4-H Youth Exchange Program is sponsored by the National 4-H Council, Washington, D.C. and the Penn State Cooperative Extension Service.

Locally, the Bucks County IFYE committee supports the representatives and raises money for the exchange. In the past 19 years, Bucks County has had 10 young people travel to foreign countries with this program.

Walton was selected as an IFYE representative on the basis of her leadership abilities and 4-H participation. A member of Danboro 4-H for nine years, Walton served as club president, 4-H camp counselor, and crafts teen leader. Currently, a nurse's aide at Doylestown Manor Nursing Home, Walton graduated from Central Bucks West High School, and attended Penn State University.

Walton will be returning to th United States on approximately October 25, after which time she will be sharing her experiences with community groups and organizations.





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