

# Teachers Attend Biotech Workshop



Ronald Frederick, Twin Valley High School, Elverston, was one of 22 teachers who attended a two-day biotechnology workshop sponsored by American Cyanamid.

PRINCETON, N.J. — Twenty-two high school agriculture and science teachers from across the U.S. recently attended a two-day biotechnology workshop sponsored by American Cyanamid Company's Agricultural Research Division in Princeton, N.J.

"The purpose of the workshop is to give teachers an opportunity to see, first-hand, how biotechnology currently affects and will continue to impact agricultural and science education," said Fred Stillwagen, educational consultant at Cyanamid and organizer of the event.

He said, "This workshop has continued to grow and expand into its present state because of the changing needs of education. More than ever, today's educators have to be prepared for the challenges of teaching students about

an increasingly scientific world."

The teacher not only saw science in action, but were able to conduct their own hands-on experiments using protocols specifically written for high school agriculture and science programs. These same experiments are suited for informing high school students of today's exciting world of technology and will be used when the teachers return to their classrooms this fall. Besides plant tissue culture experiments, participants tried their hand at procedures in chromatography, electrophoresis, and transferring DNA.

Chromatography is a process that separates plant pigments and helps scientists determine their function in a leaf. Electrophoresis can be used to separate nucleic acids, DNA, and RNA on the basis

of shape and size. It can be used to identify the structural forms of DNA and the size of DNA fragments, which is important in learning the function of a gene. Extracting and transferring DNA

from a bacterium allows both the physical and biochemical features to be examined.

These experiments were simplified so that instructors could learn how to teach the lessons to high school classes.

## Honey Harvest Fest Set

WESTMINSTER, Md. — The Hashawha Environmental Center, in cooperation with the Carroll County Beekeepers Association, is sponsoring the 8th Annual Honey Harvest Festival on Sunday, September 18, from noon to 5 p.m.

The festival, free of charge, features many exciting events, including hayrides for the kids, a chance to visit a real apiary, food concession, a beekeeper wearing a 'bee beard,' and numerous related country crafts.

Another highlight of the festival is the honey and honey cookery show competition with ribbons and cash prizes awarded to the winners.

Smokey The Bear and Buzzy Bee will greet visitors and pose with the kids for memorable pictures. The Bear Branch Nature Center will be open for the public with a glass honeybee hive and children's discovery room awaiting public exploration.

For more information, call Hashawha at (410) 848-9040.

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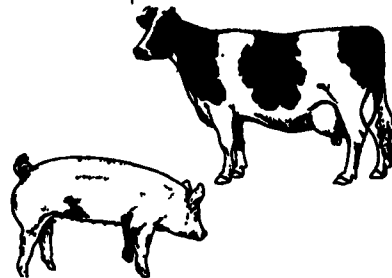
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