#### C30-Lancaster Farming, Saturday, October 11, 1980

## 4-H

#### (Centinued from Page C29)

stated, "They were a good group, very compatible. They learned they had to rely on one another. They put up their own tents and we checked them."

James agreed, "We had no problems between two people. If someone couldn't do something, someone else volunteered to help. One of the surprising things was that the girls did such a nice job."

The two leaders got some of their experience together as Boy Scouts in Lancaster, then progressed to backpacking about eight years ago. They have hiked many miles together and have confidence in their ability.

Rob says, "If the project is run right it has potential. Gus and I know what we can do, and we had to find out what the members could do. We decided we'd rather start with low mileage than start too high." Both men agreed that they wanted the experience to be a good one for the members and they remained flexible in their goals.

James, a science and math teacher in junior high at Rising Sun, Maryland, has had a lot of experience in working with young people. He also coaches football.

Gianopoulas works with his father at Andy's Catering Service, so his involvement with 4-H'ers has been strictly as an observer at some of their events at the Farm and Home Center. For him the experience was new, but fun. He said, "I really enjoyed it. I enjoy going out anytime. It tired my patience sometimes, but they were easier to handle than I thought. It made me aware that I could communicate with them."

One of the points stressed in the preparation was that members didn't have to go out and purchase expensive equipment. "We told them to borrow if they could or to use things they had at home. For instance, they could use belts instead of expensive straps," Gianopoulas

related. Many did buy packs, but instead of expensive boots found adequate sturdy shoes. Sneakers were not recommended.

Despite their reference to the checklist, Rob said, "Some people forgot things they really needed, or came with one quart of water. They saw how fast it went in the hot weather." He estimated that members' packs weighed about 25 pounds and the leaders' about 35-40 pounds.

Gianopoulas carried a little stove, a first aid kit, a repair kit and extra pins and rings. The leaders also had extra water, so despite the forgotten things, they agreed that the overnight hikes went well. Gianopoulas said, "Mostly they had what they needed."

With the experience of one project year behind them, the leaders remain optimistic about it. They learned some things to incorporate next year. For one thing, there will be a lower age limit, and the members will have to do more of their own cooking. Gianapoulas ended up doing most of the cooking, but he said philosophically, "Then I didn't have to clean up."

They relied heavily on prepared foods, but not the specially freeze-dried foods designed for backpackers which tend to be very expensive. Breakfast was pancakes made from a mix and dinner was spaghetti made with ready-made sauce. The spaghetti dinner was made special when James produced two loaves of Italian bread which he had packed along.

For the noon meal. members provided their own sandwich and snack foods. "We tried to have them bring something that would give them a little nutrition." Gianopoulas said.

Along with the actual hiking experience, the leaders stressed conservation. Gianpoulas related, "We don't like to leave anything behind. We teach them that they pack out what they pack in. We brought a whole garbage bag

#### Newark, Del. -- A Delaware researcher is studying a microscopic fungus that may someday have practical benefits for commercial producers of nursery stock and flower and vegetable seedlings.

Wallace Pill is innoculating seedlings with mycorrhiza, a fungus which is naturally present in field soils but is not found in the sterile, soilless growing mixture typical used in commercial greenhouses.

Scientists believe that the strands of the fungus attach themselves to the plant's roots, increasing the root surface area and thereby enhancing the plant's ability to take up water and minerals, especially phosphorus. This should increase the plant's growth. However, scientists in other states who have been experimenting with mycorrhizae in soilless growing media have not always achieved the expected increase in plant growth, Pill explains, because there is still much to

be learned about the fungus' growth requirements. Still in the early stages of his research, Pill is hoping to achieve not only an increase in plant growth rate, but also

full of trash out with us that was left behind by others."

James added, "There are so few places to hike and much of the Appalachain Trail is over private land. We feel it's important to be considerate or those landowners may close those areas."

These experienced backpackers are confident they have instilled some worthwhile values in their young charges. James said. 'We figure if we show them the way we backpack, the way it should be done, if they go by themselves they'll be alright."

And while they agree the project has potential for other clubs, they caution only experienced that backpackers should consider serving as leaders.--SBB.

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reduced need for а phosphate fertilizer.

Phosphorus fertilizer is becoming increasingly expensive, Pill explains, and supplies are finite. Mycorrhizal fungi, on the other hand, are a renewable resource.

A major task is that of determining not only the best combination of host plant and mycorrhizal fungus, but also the correct combinations of light, temperature, growth medium type and fertility.

If Pill's research shows it is feasible to infect seedlings with mycorrhiza in place of some of the phosphate

fertilizer normally applied, this could be an economic boon to growers.

"We're still at the stage of research," basic Pill

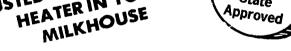
stresses. "Although the work *•* looks promising, we have a long way to go before we're ready to apply these principles commercially."





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