

Undergraduates Bring Energy To Labs

UNIVERSITY PARK (Centre Co.) — Throughout the academic year, many undergraduate students work in the laboratories of faculty as participants in the Undergraduate Research Program in Penn State's College of Agricultural Sciences.

During the past two years, more than 50 undergraduates have learned many valuable lessons by conducting research projects. Research experience helps them gain experience, develop contacts and recommendations, for graduate school and find career focus. Students return the favor by being unique assets to the research environment.

"One benefit is that they're an extra pair of hands that a graduate student can work with," said Robert Roberts, assistant professor of food science. In his lab, students usually start out doing clean-up and basic prep work until they demonstrate responsibility, Robert said.

When students move on to conduct experiments, they often begin by working on projects that are short-term, more applied and less scientific. "I'm able to give undergraduates pro-

jects that I know probably don't have a good chance of working out so we can get preliminary data without making graduate students worry about failing their thesis," Roberts said.

Undergraduate researcher Justin Comes, a senior in food science, agrees that undergraduates are ideal for conducting experiments that are not in-depth or involved enough for graduate students.

"Undergraduates can test the waters for future projects," said Comes, who is working on tomato compounds with Robert Beelman, professor of food science. "It's exciting. I get thrown a lot of new projects that may go on to become more sophisticated graduate student projects if they show promise. A lot of them don't work, though."

Comes's favorite part of research isn't the experiments, but the interaction with faculty. Many undergraduate research supervisors take pride in their

teaching skills and enjoy taking someone under their wing. "Just from personal experience, the lesson you get from faculty is that they're just as human as you—they make mistakes," he said. "It makes setting foot into the research world seem less intimidating."

The level of contribution that undergraduates bring to a labo-

ratory depends on the individual student's capabilities and personality, but in general students make the transition from course work to lab work fairly easily, said Daniel Fritton, professor of soil physics. "They're helpful and have a lot of energy, he said. "They're an extra pair of hands and an extra mind—that is always helpful."

Undergraduates do consume more time and need more guidance because they're not as advanced as graduate researchers, but most faculty members are very willing to have them in their labs.

"We don't have to have undergraduates in our laboratories," Robert said, "We do it because we want to."

Miller to Keynote Ag Republicans

HARRISBURG (Dauphin Co.) — Lewis Miller, executive vice-president of the International Association of Fair and Expositions (IAFE) will be the keynote speaker at the 19th annual meeting of the Pennsylvania Ag Republicans. His presentation is "Where to Now?" The meeting will be at 3 p.m., Jan. 12 in Room B of the Farm Show Building, Harrisburg, in conjunction with the Pennsylvania Farm Show.

Miller is a graduate of Southwest Missouri State

University, Springfield. Following service in the US Air Force, Miller served as farm service director of KWTO radio station until 1961. He worked for Empire Bank until 1966 where he created a farm credit department. Miller moved from that position to become general manager of the Ozark Empire Fair until 1979 at which time he accepted his current position with IAFE.

He is a recipient of FFA's coveted American Farmer Degree. Miller has served as presi-

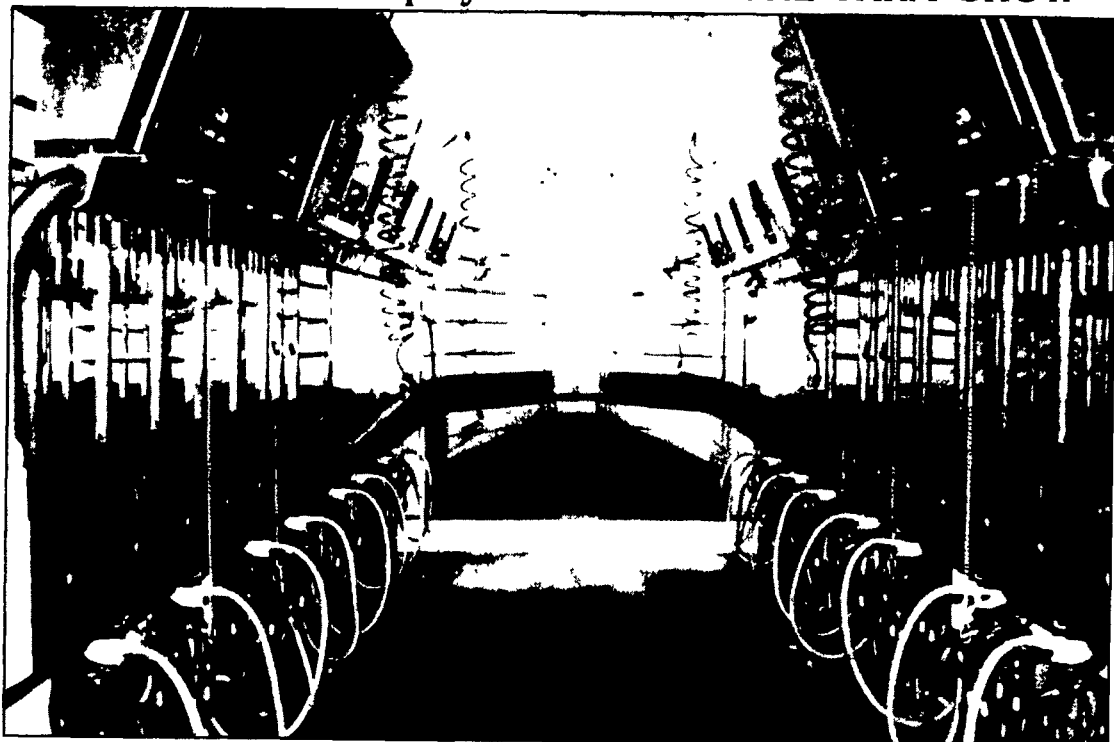
dent of the Missouri Association of Fairs, president of the Midwest Fairs Association and numerous other organization. Mill serves as a member of the advisory board of the Ozark Empire Fair.

Pennsylvania Ag Republicans is an organization affiliated with the Pennsylvania Republican State Committee to encourage Republicans involved in agriculture to be active in the political process of the state. For additional information contact: Beverly Gruber, chairman, at 610-767-5096

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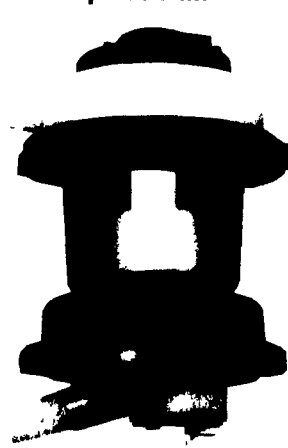
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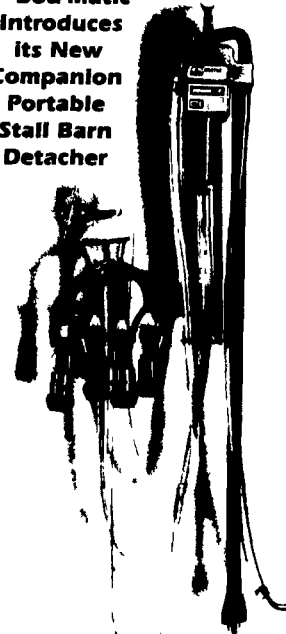
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