



CAN TEACHING  
SURVIVE  
IN ACADEMIA?

*by Rosa Eberly*



“What I find most frustrating about teaching is the fact that a lot of teachers aren’t given adequate time to prepare.”

*Each year, Penn State honors outstanding undergraduate teachers with the Christian R. and Mary F. Lindback Award for Distinguished Teaching or the AMOCO Foundation Outstanding Teacher Award. A check for \$1,000 accompanies each award. Since 1979, Lindback and AMOCO award recipients have been known as Master Teachers, a title given them by Robert E. Dunham, vice president for undergraduate studies. Six Master Teachers are College of Agriculture faculty members.*

Erskine H. Cash, associate professor of animal science and winner of the 1979 AMOCO award, says the high point of teaching at Penn State is seeing students excited about integrating what they have learned all through college. “In a 400-level beef production course, it’s a challenge to try to tie it all together and to make students see how they can use some of the things they learned in freshman- and sophomore-year biology and chemistry,” Cash says.

“If the students like the subject and are learning something, then I enjoy teaching. I can’t imagine teaching a course where the students don’t get into it,” he says.

But getting into it is not a problem only students have, Cash believes. “What I find most frustrating about teaching is the fact that a lot of teachers aren’t given adequate time to prepare,” he says. “And I’m not sure that colleagues and superiors always give teaching the credit it deserves. It seems like almost everybody that enjoys teaching is also committed to

doing a lot of other things.”

Along with teaching livestock production, management, and judging courses, Cash has coached the university’s Livestock Judging Team since he came to Penn State in 1972. Student members of the judging team do a lot more than the two credits they get for participating would indicate. “We spend a lot of Saturdays, a lot of evenings,” Cash says. “I guess it’s like any other competitive activity: you like to win – at least I do. Winning’s not everything but it’s a big part of it.”

Cash also developed a Livestock Sales Management course, offered in 1979 and 1982. Limited to dairy and animal production majors, the course culminates in a nationally advertised Angus beef cattle sale. “The course can only be taught when we have adequate numbers of livestock to conduct a sale,” Cash explains. Except for compiling the livestock catalog, everything connected with the sale is done by students; they prepare the cattle and sale facilities, and form food and decorations committees. Livestock sales have generated considerable income – \$146,000 in 1979 and \$190,000 in 1982 – and the course will be offered again when the university’s livestock inventory is high enough for another sale.

Three years ago Cash took on the duties of university farm coordinator, and since then he has had little time for his research, primarily in beef cattle nutrition. But when a new farms coordinator is hired, Cash will have more time for research or teaching. “And I really don’t care which,” he says. “I can enjoy either.”



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Professor of agronomy Joseph D. Harrington believes agriculture students from nonfarm backgrounds can do just as well in ag courses as students from farm families. “You don’t have to know how to milk a cow to understand the farmers’ problems,” the 1973 Lindback Award winner says.

Since joining the Penn State faculty in 1957, Harrington has taught Agronomy 28, Principles of Crop Management, to over 4,000 students. Harrington says the fact that 74 percent of all students in the College of Agriculture now come from nonfarm backgrounds has not caused him to treat anyone differently in the classroom. “I operate on the thesis that everyone’s at the same level and I build on that basis.”

Harrington says some students are more used to the terminology of agriculture than others are – for example, the distinction between hay and straw. “But I’ve kept records,” he says, “and the kids from the country don’t do any better than the kids from non-farm backgrounds.”

Although Agronomy 28 covers basics, Harrington says he does not like to teach the course the same way twice. “You don’t change the basics a whole lot. You’re still teaching what alfalfa looks like. But method, technique, how you do things – every time I

teach there’s something different I do.”

Besides teaching and attending all the lab sessions for Agronomy 28, Harrington keeps busy as Ag Progress Days’ general manager. In 1983, the three-day event boasted 292 commercial and nearly 40 noncommercial exhibits, along with displays from departments in the College – all of which Harrington oversaw.

Harrington says one of Ag Progress Days’ strongest features is that it draws agricultural experts from all parts of Penn State to one place – the Rock Springs Agricultural Research Center – for three days. “The scientists are there,” he says. “And if a person has any troubles, he can talk to specialists eye to eye. Specialists can get back to the guys that are doing the basic work, and that is a real plus factor.”

Penn State’s Ag Progress Days is one of the largest and best events of its kind in the East. In 1982, the event drew over 85,000 people. “We beat football!” Harrington beams. “It took us three days but we beat football!”

But Harrington vows he will never be quite satisfied. “That’s how we keep getting better. ‘Cause I keep saying, ‘We’re not perfect. We’re good, but we’re not perfect yet.’ It’s like teaching: keep going forward. Let’s get it perfect.”



“There’s a hell of a lot of people  
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When professor of plant pathology William Merrill Jr. wrote “Innovative Teaching of Plant Pathology,” one of more than 170 articles he has published, he declined to recount the time he took his electric guitar to class and sang “The Doug Fir Butt

Rot Blues” and “Dutch Elm Disease Took All My Trees Away.”

Like other Master Teachers, Merrill, 1976 Lindback Award winner, says good teaching is vital. And, like others, he believes teaching is sometimes not given the attention it merits. But Merrill goes a bit

farther. "In spite of all the lip service, I don't think we're really a teaching institution. We're a research institution. There's a hell of a lot of people in the university who are excellent teachers but who don't get tenure because they're not doing the research."

Merrill teaches four courses: theory and concepts of plant pathology, diseases of economic plants, forestry ecosystem protection, and introduction to research. In the research course, students are required to write a research proposal, similar to an experiment station proposal, and later defend it during a one-hour oral exam given by Merrill and a colleague. "Students are going out of here as College of Agriculture graduates, and they ought to know how research is conducted. It's part of being an educated person," Merrill says.

As professor-in-charge of the plant science major, Merrill advises many students. "I think advising is crucial, and it's unfortunate that it is given short shrift in virtually all departments and majors in the university," he says. "If you don't have good advising, the students are going to leave here very embittered."

Merrill says he is not certain why over half of the students who had one of his plant pathology courses during an academic year said it was the best course they had taken at Penn State. "I'm not sure to this day why they said that. I totally alienate maybe 7 to 8 percent of the students. They hate my guts at the end. There's another 8 to 10 percent who think I walk on water a little above and ahead of Christ himself. And the others are someplace in between. It's the normal curve."

During his 17 years at Penn State, Merrill's research has centered on diseases of forest trees and wood deterioration. Since 1972, he has concentrated on Christmas tree disease research. "You can't sell a Christmas tree without needles, you know." By working closely with Christmas tree growers – often giving Extension presentations in areas where growers also cooperate with his research – Merrill says he has learned that research and Extension go hand in hand. "If you want grower cooperation with your research, you have to give the growers something back," he says.



"I have become and remained  
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Professor of dairy science Paul R. Shellenberger believes teaching should be given higher priority at Penn State. So the 1975 Lindback Award winner is hard at work chairing a College of Agriculture advisory committee on resident education. "We want to go on record that we have a mission in resident education that all can agree upon," Shellenberger says.

Since 74 percent of Penn State agriculture students now come from nonfarm backgrounds, the committee is concerned that College of Agriculture graduates might not be receiving as diverse an undergraduate education as they need. Shellenberger believes the college should consider integrating such topics as ag history, ag ethics, and communications skills into existing courses taught by college faculty members.

Shellenberger teaches Animal Science I, basically a biology course in which students study animals that provide food and fiber for humans. Shellenberger teaches about those animals, their products, and their biological systems by giving students hands-on experience with laboratory animals – rats, mice, and chickens. He says that when some students discover they will learn about cows and sheep by looking at rats and mice, they get upset. "Some students say they want to

work with beef cattle or other farm animals right off the bat. But it is more important to learn the concepts behind animal science and then apply them to any animal," he says.

Shellenberger also coordinates Animal Science 290, a course designed to inform students about career opportunities in animal agriculture and related fields. Penn State graduate students and alumni from various agriculture-related areas are invited to "discuss coursework and experience a student should have for entry-level positions in those areas," Shellenberger says.

During his 16 years at Penn State, Shellenberger has concentrated his efforts on teaching. "I have become and remained a good teacher by making it my main concern. My strong suit is in working with students – both teaching and advising," he says. But PS-23, the university's promotion and tenure policy adopted in 1974, requires faculty members to be active not only in teaching and advising, but also in research, scholarly activity, and public service. "Under the new system, I might not have made it," he says.

"Most of all," Shellenberger says, "I would like teaching to be given equal emphasis in mission to research and service."

## How does tenure work?

The University's policy statement on tenure and promotion, PS-23, applies to all full-time faculty members holding regular appointments. Its aim is to ensure that academic quality determines whether academic personnel are granted tenure and promotion.

Tenure is considered the keystone for academic freedom and excellence. The University provides a six-year review period during which untenured faculty members must demonstrate academic excellence. Tenuring a candidate means providing permanent employment up to retirement, unless subsequent academic incompetence or moral turpitude clearly can be demonstrated. Tenure safeguards "the right of free expression and risk-taking inquiry," rights that are considered beneficial to society.

"A well-designed tenure and promotion system attracts capable and highly qualified

individuals as faculty members, strengthens institutional stability by enhancing faculty members' institutional loyalty, and encourages academic excellence by retaining and rewarding the most able people. Tenure and promotion imply selectivity and choice; they are awarded for academic and professional merit, not for seniority." (Preamble, PS-23)

Tenure and promotion decisions are based on four criteria: (1) teaching ability and effectiveness; (2) research, demonstrated through publication, or creative accomplishment, demonstrated through exhibition or performance; (3) scholarship and mastery of subject matter, including evidence of continuing professional growth; and (4) service to the University, the public, and the profession. Although tenure and promotion decisions are made separately, these general criteria apply to both.



"Students have only recently begun to realize they are consumers. They buy an education at Penn State...."

**F**ood science professor Manfred Kroger, 1983 Lindback Award winner, believes "students have only recently begun to realize they are consumers. They buy an education at Penn State, and they want to make sure they get what they pay for. Like any wise, educated consumer who kicks the tires on a car, who checks the weave on a cotton shirt, a student should also test the university," he says. "Will it give me my money's worth? Are the professors any good? Is the program any good?"

Kroger says Penn State has had to respond to heightened student consumer-consciousness. Thus he can understand why so much is required of university faculty members. "If you totally hide your light under a bushel," he says, "you don't deserve to be a professor. If you're not recognized, you're not a shining light. You shouldn't be rewarded."

But Kroger says trying to be a shining light did not initially leave him as much time for teaching as he would have liked. "I played according to all the rules to get promotion and tenure," he says. "And during

the last 10 years I've begun a more active teaching career."

Kroger teaches at every course level and in several departments, including the Science, Technology, and Society program, an interdisciplinary curriculum in which students can investigate the relationships among science, technology, and the human race. Kroger is also faculty advisor to the STS interest house in the dorms. "What good is a nuclear engineer who doesn't know about Chaucer?" Kroger asks. "What good is a Shakespearean scholar who doesn't know anything about genetic engineering?"

Kroger believes effective education requires a pact between teacher and students. Just like professors, students must shoulder their share of responsibilities. "There is nothing harder than teaching against a wall of bored faces that you can't even whip into enthusiasm by tricks," he says.

Along with teaching and advising, Kroger does research on pesticide residues in foods. He is a widely

recognized authority on yogurt, other fermented dairy products, and cheese. A native of Germany, Kroger says necessity initially led him to the dairy industry. "You had to be practical. I could have gone into a bank and suffered hunger. Or I could have gone into a dairy and cut a piece off a cheese every once in a while."

Kroger thinks university specialists have a duty to educate the general public, as well as students, about their fields. He is regional communicator for the In-

stitute of Food Technologists, a position that makes him accessible to the media for comment on controversial or confusing food-related issues. He also writes and edits for the American Council on Science and Health.

"I am a communicator of scientific fact, of the scientific story as it stands today," he says. "Scientific thinking and education can lead us out of this darkness of fairy tales and monsters and unexplained phenomena."



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Roger Pennock, Jr., the College's newest Master Teacher, takes his students to heart. "Quakers have this saying – I happen to be a Quaker – that is sort of the basis of the whole religion: There is that of God in every man; there is that of good in every person. I think students are the most important thing that comes out of this university. I honestly do. Research is important. Extension is important. To me, those kids are important.

"And there is no good measurement of that," continues Pennock, 1984 Lindback Award winner. "I don't think the state has any way of saying here is the dollar value we're getting out of Penn State in terms of people who will contribute to Pennsylvania. We can get information on a vaccine that prevents this or that chicken disease and what it's done for the state's economy. But nobody sits down and looks at the value of these individuals that are coming out of here. And I really think the students are getting shortchanged in a lot of cases. I'm not about to let that happen in my courses. The students are just too valuable."

For Pennock, associate professor of soil genesis, getting to know his students and improving his teaching go hand in hand. "Penn State hired me because I was interested in teaching. And one of the things I've tried to do is to get to know my students and to let them know that I am attempting to do that."

Besides teaching courses in soil morphology and mapping, forest soils, and soil and water conservation, each semester Pennock teaches Agronomy 200, a large survey course in soil resources and land use planning. His goal is to know each student in the course and to find innovative ways to present the ma-

terial. "Here I have a class of, say, 190 students. How do I get them involved instead of just straight lecturing?"

For starters, Pennock often uses "minidiscussions." In one lecture, after showing slides of soil profiles and explaining how to horizonate, or classify the layers, "I tell the students to introduce themselves to the people sitting right around them. I want them to discuss how to horizonate the profile that I'm projecting." Pennock then asks two students to draw the profile on the blackboard. "It's been super. Because what happens is, they'll make a mistake. And I'll say, 'OK. That's all right. I understand why you did that. But it's wrong. It is this.' And they'll see it. This approach clarifies the thinking of the whole class."

In addition to winning the Lindback Award, Pennock was named Outstanding Teacher by the Northeast Section of the American Society of Agronomy in 1980. His students nominated him as Golden Key Faculty Member of the University for 1981-82. "Getting the award is one of the highlights of my life because it came from the students, a choice by students."

ROSA EBERLY, who received a B.A. in English from Penn State in May 1984, won The Katey Lehman Creative Writing Award in journalism for this piece. Steve Lovelady, executive editor of the *Philadelphia Inquirer* and judge for the journalism entries, said: "The last thing I ever thought you could interest me in would be thumbnail profiles of Ag teachers. But this piece is informative and entertaining, and each professor sketched comes alive on the printed page."