spective. This is how we gain respect. If we do not display these qualities, then we can say with Rodney Dangerfield, "I get no respect around here."

I do not try to teach like anyone else. Over the years of attending teaching improvement seminars and conferences, I have utilized those methods, techniques, and procedures that work well for me.

We must demonstrate and communicate the qualities of character, honesty, and integrity outside as well as inside the classroom on a one-to-one basis. Then these qualities begin to be accepted by the students and spread from student to student. Now your interest on respect is really growing. With this ac-

ceptance comes the good feeling that you are doing a good job of "feeding minds to feed the world."

Then that student, whom you met as a weary and shy freshman, becomes a mature, graduating senior, and after several years returns to the campus and commends you by remembering you and the courses you taught that were valuable to him in his vocation. This is a reward that cannot be framed and hung on the wall. It cannot be deposited to your checking account. These rewards become living, loving, and perennial monuments of satisfaction that you, in a very small way, have used your God given talents for "Feeding Minds to Feed the World."

Agriculture in Pennsylvania: Responding to Changing Markets and Technology

Penrose Hallowell

There are many privileges of being a Secretary of Agriculture in Pennsylvania. It is, of course, a great state, and agriculture is a great industry made up of a lot of great people. I find that as I get around the country the same things holds true. I think the best people are in agriculture.

Another of the privileges I have is working for a Governor, Dick Thornburgh, who is an engineer and a lawyer by trade but has been converted to an avid supporter of agriculture. You have greetings from him in your kit, I believe. Since he has become Governor, Dick Thornburgh has driven tractors and has ridden in a Mennonite buggy. A while ago we had a trade group from Japan over here looking at Holsteins. We were trying to settle on a bull for about \$70,000, and we even got the Governor down to show the bull. The owner of the bull was new and on shaky ground and he asked the Governor to lead the bull. They took the bull out on the driveway, with no fence, no pitchfork, no baseball bat or anything — just a little chain on the end of the bull's nose. Against my advice the Governor took that chain and we took pictures of him. You may not know it, but he is up for election this year, and we think we got a pretty good picture of him leading the bull with the caption "Dick Thornburgh is bullish on Pennsylvania." He is also bullish on agriculture.

I'm a great believer in education, having benefiteu from it myself. I have four children and all four of them graduated from college, three out of four from Penn State, which is a pretty good batting average. All of them are, to some degree, in agriculture, from farming to propagating embryo transplants. I know my family and our family's farm here in Pennsylvania would not be what they are, would not have the future that they

The Honorable Penrose Hallowell is Secretary of Agriculture for the Commonwealth of Pennsylvania.

have, were it not for people like you. So it is really a privilege for me to be here and talk to you.

We in agriculture have a lot of challenges before us. In Pennsylvania, and throughout the northeast, we are often a forgotten cousin. When you talk to agricultural leaders in Washington or anywhere else they don't even know that there is an agriculture in the northeast. Yet agriculture in Pennsylvania, after many years of being second to steel and maybe tourism, is the number one industry again. That is because of the tools we have to work with, the land and the farms, but also because of the education our people get in our fine school system.

We have a lot of problems, of course. You may notice I'm wearing a button with the logo: "Pennsylvania Agriculture — we are growing better." It is not only a fact but it's an idea we are using to promote Pennsylvania products. Those of you who are from other states may not appreciate it as much as we do, but we think it is advantageous to Pennsylvania farmers and consumers to buy Pennsylvania products.

Farmers today are facing threatening problems, especially in the dairy industry. Like everyone else we're suffering the high cost of credit. And, most of all, we're suffering from the overproduction or the undermarketing of our products so that for what we produce in Pennsylvania we have surplus problems: in dairy, in mushrooms, in eggs, and in poultry. It is hard to believe that we are selling eggs and poultry to consumers today for the same prices they sold for in 1951. When I started farming in this area, I was selling eggs for 89 cents a dozen. We are selling them for the same price today.

Agriculture is big business and both nationwide and worldwide we recognize what a great asset this country has in agriculture. Were it not for our balance of payments in agriculture our national economy would be in severe trouble. This year the wholesale value of Pennsylvania's farm produce is about three billion dollars. Even more importantly, 20 percent of our people are working in ag-related industries and one-fifth of personal income is related to agriculture, a total of 25 billion dollars.

In the past four years we have passed in the state 30 bills to aid agriculture and to help preserve the land. Some of those bills help reduce taxes on farms and help market agricultural products. The General Assembly has passed this legislation because it recognizes the contribution agriculture is making in Pennsylvania.

Just to give you a look at things that happen in Pennsylvania to give you an idea of the kind of crises we face (and, hopefully, the progress that we are making), we have a railroad in Pennsylvania called Conrail. It used to be the Pennsylvania Railroad. The Pennsy went broke. Conrail has been losing money but it is struggling back now. Some time ago the railroad announced the abandonment of 750 miles of railroad track. About one-third of that is in Pennsylvania. In many areas those rural lines are serving agri-business by bringing in fertilizer and feed while taking out produce. One of these stretches slated for abandonment is located near Martinsburg. It's a seven-mile stretch for which agri-business - Agway Milling Company; Young, Inc.; and a food trading company raised \$86,000. They bought the seven miles of railroad track. The state came up with \$104,000 to put it in operating condition. It will no longer be part of the Conrail system, but it will be available to users and to future expansion in Blain County's Martinsburg area. The future looks a little brighter there than it did a year ago when it looked like that rail line would close and the area's farmers would not be able to get their supplies in or their crops out without a lot of trucks and vehicles coming up and down the highway.

Just two days ago in Bethlehem I was at an event at which a group of I.G.A. stores pledged themselves to buy more local produce. Local farmers are going to be raising more and that is definitely a change that is current.

Last year we were concerned about the med-fly. We were really concerned that California wasn't going to control the med-fly. We were a little concerned that perhaps the California government didn't have quite the attitude supporting agriculture that we have here. Finally the Sacramento government did see the light, but we were checking almost every shipment of food products from California. And in the middle of August at the food distribution center in Philadelphia we were amazed to find that fifty percent of the fresh produce — fruits and vegetables — were from California. That doesn't even take into account Texas and Florida who were shipping us produce too. That really amazed me. When I talked to the Secretary of Agriculture from California he said that will probably not be true in 20

years. By then, he said, California would be doing well to supply the West. That would mean that we in the East will have to produce our own vegetables. That's one of the challenges that we face, and I guess we are trying to face it as soon as possible.

Then just this last Saturday we visited a farmers' market in Easton. It is the oldest farm market in the state. We are allocating a new fund to provide low-cost money (at half prime) to farmers or groups of farmers who want to build direct-marketing facilities.

We have a lot of direct marketing going on already in Pennsylvania. In fact, Pennsylvania is first in the nation in number of roadside markets (1157), and first in the direct marketing of milk (250 million quarts for 86 million dollars). We are also first in total cash receipts from direct marketing (150 million dollars). We are second in pick-your-own operations (over 600 in the state), and we are expecting the number of open air farmers' markets to increase by about 100. I don't know which market you will visit today, but there are a couple here in Bucks County that are outstanding. One of them is now in the second generation of family ownership, and it is approaching two million dollars gross sales per year. That's the kind of thing that is going to help farmers, and probably help consumers as well.

One of the greatest things in agriculture is the opportunity to work with the youth. We have strong 4-H programs and F.F.A. programs that are just tremendous and of great value to everybody. And many times when I am speaking to groups of young people they ask, "How can we get started in agriculture?" I think there is a desire to get involved in agriculture among young people like never before. I think there is great opportunity for them if they plan ahead carefully. But I think one of the responsibilities that you enducators have is to give them an even broader education to show them that if we are going to produce something we must produce something for the market.

In Pennsylvania we do not have large supplies of grain or cotton or raw material to export. Just four years ago our annual exports were valued at only about 150 million dollars. They are up to 264 million dollars this year. But that is still a small figure compared to what it should be. The USDA has an inititative now to promote the export of value-added-products. These are not all grains but include such things as canned or processed meat products or poultry products that have jobs and dollars tied to them that will help us even more.

Over the years our exports have been dictated by a buyers' market. We really don't have the ability to compete with other countries that have government agencies supporting them. We need to take better advantage of opportunities to help ourselves with our exports. The Common Market, for instance, subsidizes exports of dairy products. We in this country subsidize the price



of dairy products. Right now, with the value of the dollar going up, we are really at an unfair competitive disadvantage because the Common Market countries are selling at lower prices than we are.

I was on a trade mission to Japan about a year ago and it really disturbed me that we are opening our markets to their cars and virtually everything else without any duty whatsoever; and yet, if we want to export cheese or meats to them, we face many import regulations. Their farmers have a lot of political clout. Just a few weeks ago we had a meeting in Japan to discuss opening their market to our ag products. Their farmers picketed the government and were successful in limiting any benefits that were derived in the negotiations on our part.

I wouldn't be surprised if you see me and about 100 other farmers start picketing the Toyota dealers. One thing the Japanese understand is hard trading. There has been some discussion about doing that. The United Auto Workers would be delighted to join in with farmers creating a farm coalition working against that kind of import. Unfortunately, that is not really what we want to achieve. We don't want to stop Toyota from coming in, but we do want the Japanese to open their markets to our products. Their consumers are paying 15 to 20 dollars a pound for beef, and 10 dollars for a cantaloupe. I think if we work hard we can get into that market.

I really think that farmers need to understand the export business better. Even though they are not involved in it, they have to appreciate the importance of it. If we are going to straighten out our dairy industry (which is producing ten percent more milk than we can consume) we have got to find something else to do with those acres and those bushels of grain.

In closing, you have a tremendous challenge, and you have a tremendous effect on our future. I think that the future of agriculture is great. If I were a younger man I would start in it again, and I have a couple of grandsons who I hope will be getting into it. I believe that because of what you will do to make agriculture better we will have the opportunity to grow better not only in Pennsylvania but across the country.

Sustaining The Land Ethic In Agriculture Education

Neil Sampson

American farmers are wasting the land upon which the nation's strength depends at an appalling rate. Between 4 and 6 billion tons of topsoil are moved each year by various forms of soil erosion. Not all that soil leaves the farm, of course, but probably about half does, and much of the rest is sorted into coarser, less fertile components which then bury better topsoils elsewhere.

Whenever topsoil is moved by wind or water erosion, there is a separating process that works much like a grain separator. The materials likely to be carried the farthest, and end up in a water body or on a mountain somewhere, are the clays and organic fractions that carry the greatest fertility and that are the most important to soil productivity. Thus any soil affected by erosion, whether topsoil is moved or sediment deposited, is likely to be degraded in the process.

How serious are the current rates of soil erosion? That is a hard question to answer with any certainty, but the indications are that on 12 percent of the current croplands and 17 percent of the range lands, soil losses are so severe that those lands will be unproductive within a few short decades. Add to that the lesser damages taking place on soils that are being eroded at lower rates, plus the damage to lands being buried under sands or sediments, and we have some general idea of the rate and extent of the damage.

Although these trends do not lend themselves to any certain predictions, they suggest that the equivalent of between 25 and 62 million acres could be lost in the next 50 years. In the past decade, an additional 10-20 million acres of land with excellent physical characteristics for growing crops were converted to urban, industrial, and other non-agricultural uses. Asked why these damage levels and losses were occuring, many farmers say that the financial crunch and technological treadmill they find themselves in today gives them no other choice.

In the rarified atmosphere of Washington, D.C., where I do most of my work, it is too seldom recognized that public laws, regulations, or programs don't save soil or manage water. Farmers do. They manage those resources as part of the day-to-day work of their private business. In soil conservation, as in crop, livestock, or family financial management, they do what they have the knowledge and skill to do, the finances and equipment to carry out, and what seems, in their own private calculation of costs and benefits, to be the "right" thing.

Sampson is Executive Vice President, National Association of Conservation Districts, and made this presentation at the Annual Conference of the National Association of Colleges and Teachers of Agriculture, Doylestown, PA, June 14, 1982.