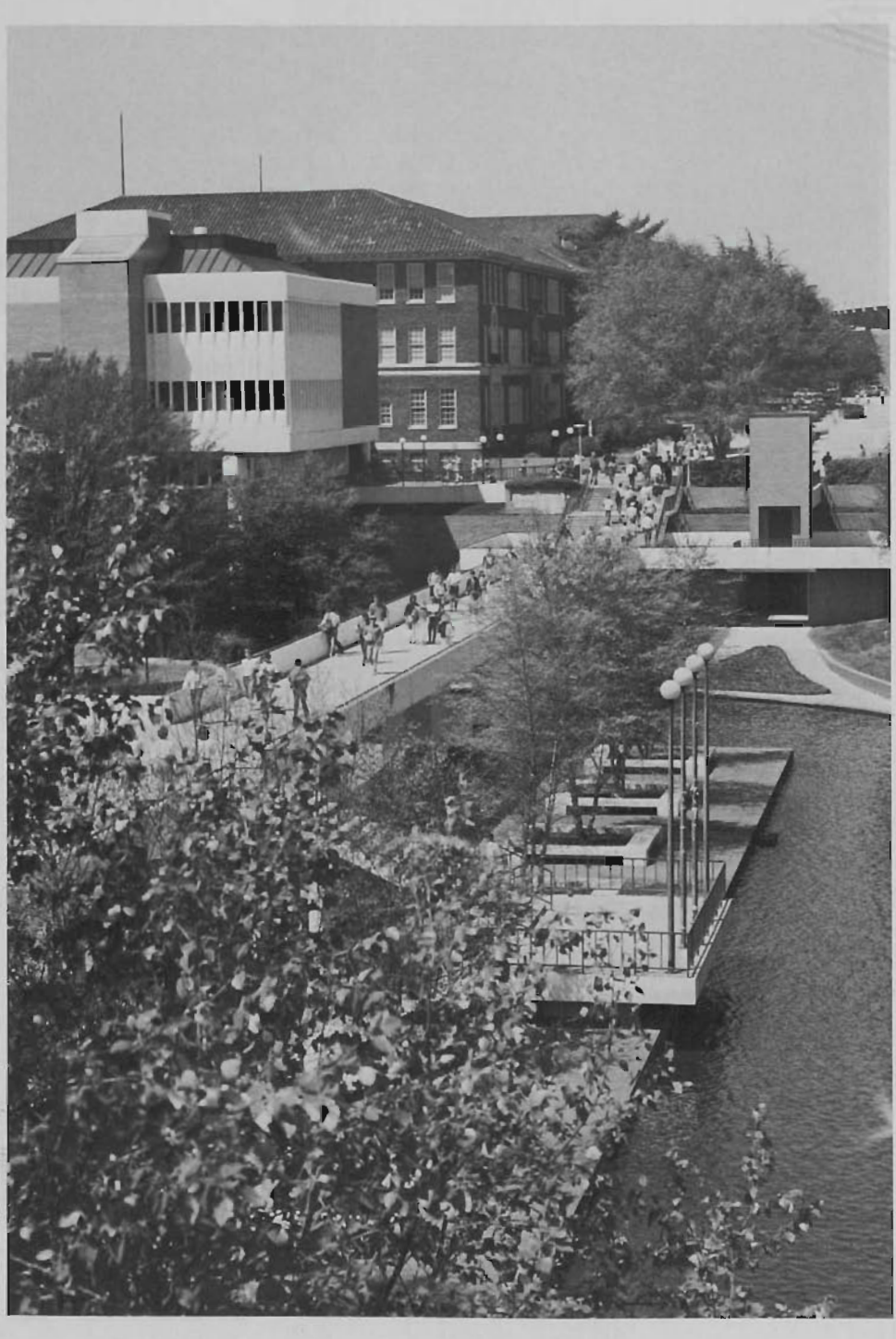
Some "Innocent" Questions for Land Grant Universities

by Max Lennon



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The 100th anniversary of the Hatch Act, the legislation creating the nation's system of agricultural experiment stations, will be observed in 1987. The land-grant education concept—combining research, teaching, and extension—was and is one of the most brilliant innovations in the history of education. On this important anniversary, however, CHOICES suggests that the celebration be accompanied by serious thought about how land-grant universities must relate to the current transition in agriculture. We think you will find this analysis by Clemson University President Max Lennon quite sobering.

Recently, at a civic club luncheon, a business executive posed some seemingly innocent questions. "With a growing population and, therefore, growing demand, why are American farmers losing money?" he asked me. "Why can't they make a profit?"

His question aroused quite a bit of conversation. Answers were abundant, including those we have heard many times. Corporate farming, government and the weather were blamed. Farmers were even accused of being lazy. By far the most often mentioned culprit was the farm credit system or lenders in general.

Having been involved in agriculture literally all of my life, I found the conversation by nonagriculturalists most intriguing. I also discovered that I was consciously trying to avoid being drawn into the discussion because I doubted it would be useful or productive. No such luck. "Max," they asked, "why is the American farmer having difficulty?" "What is wrong?" "What should be done?"

Max Lennon is President of Clemson University.

How would you have answered?

In my opinion, such questions open up some of the most important and complex issues of our time. And like so many complex issues, this one must be addressed through education. That is a truism, but it is also a cliche. It's easy to call for better education; it's harder to define what that is.

What "improved education" means to me is that everyone involved in agriculture—from student to agribusinessman—must know more, understand the world better and work smarter. The challenge to our educational institutions is, therefore, an intricate agenda that must be successfully managed if we are to have access to the economic prosperity we desire for everyone. To improve education, we must have an accurate understanding of the conditions affecting our society.

One World, Like It or Not

Perhaps the most significant factor controlling us today is that, whether we like it or not, we now live in a world. Developments halfway around the globe affect our businesses and industry—including agriculture—directly and daily.

For example, the largest economic event in history is now unfolding. The countries that lie in or are bordered by the Pacific Ocean are moving to center stage. The U.S. and western democracies no longer dominate the global economy. My question for U.S. agriculture: Are we ready?

We could just as easily ask the same question of the U.S. automobile industry, or of textiles, electronics, furniture, chemicals, and so on. Experts tell us that within a few years there will be more than 300 million high-quality, semi-skilled laborers *in China alone.* They are competitors for jobs, but they are also efficient producers of goods that can enhance our standard of living. They are also important potential customers for U.S. products, if we can effectively make the transition to a one-world setting.

Communications and advanced technology have made the world small, and made large the opportunities for success, and failure. How will we respond? Will we export jobs or products? Clearly, a global perspective must be applied not only in formulating questions, but, more importantly, in developing answers and related strategies, including those involving education.

In South Carolina, we believe we must position ourselves to compete, successfully, in a global economy. Yet far too many people in the United States—including important segments of U.S. agriculture—have not made the adjustments essential to economic prosperity in this era of global competition. The result of this failure to adjust will affect everyone involved in food, agriculture and natural resources. Historically, the nation has looked to its educational system for direction and for solutions to problems. Will agricultural colleges respond with visionary leadership to today's challenge?

In responding, we in education must not only understand more clearly the complexity of the issues. We must also recognize the urgency of stepping forward to shoulder responsibility for the tasks at hand.

Land-grant universities were formed because of a people movement. Economic and social problems seemed insurmountable. Significant numbers of people were without education and were being left behind as other parts of our society moved ahead. Only a continuing commitment to working together to seek new knowledge through research, and then applying new ideas to the problems at hand enabled U.S. agriculture to make the dramatic accomplishments that have been the envy of the world. In that same bold spirit, we in education must avoid circling the current debate in such a way that decisions are postponed and action never taken.

Now is not the time for defensive debate. Our record speaks for itself. Further, we do not need excessive tangential debate on subjects such as basic versus applied research, whether or not to publish, teaching versus research, and protecting one's discipline. Now is the time for vision that accepts the one-world complexities and the interrelatedness that they entail. Now is the time for

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developing a futuristic agenda. I suggest an agenda that adapts the time-tested basic elements in land-grant education—research, teaching, and extension—and successfully incorporates new elements to prepare our citizens for the 21st century.

Education: A Faculty Responsibility

Literally everything done in a land-grant university relates in some way to teaching in its broadest meaning. We are, after all, in the education business. All our activities, therefore, should be directed toward improving the quality of academic teaching, as well as extension education.

Given the dramatic global changes that have occurred, it is time for major curriculum reform. Many basic aspects within the curriculum should remain the same, of course, but there also are areas crying for improvement. For example, many agricultural colleges are over-departmentalized and too distant from other colleges within the university. Some do not require a foreign language, let alone a study of other cultures. Further, many college graduates are criticized for the inability to communicate. The list goes on. It should be readily apparent that a fresh look at curriculum is in order.

Without question, curriculum is a faculty responsibility. As faculty members develop and improve the curriculum, they should be aware of the importance of the global setting. But they must also relate to the grief associated with the loss of one's farm; of the depression of losing one's job; of the difficulties of providing modern, affordable services in rural areas; of the need to upgrade educational opportunities in rural America; of the growing number of homeless in the United States; of the complexities of the ghettos of our big cities. To disregard these realities in structuring the curriculum is to ignore the uniqueness of the land-grant mission—to relate especially to those that confront severe difficulties and are disadvantaged.

Research is the Key to Education

How can faculty members provide dynamic and effective teaching over a sustained period of time? Three ways are most obvious:

(1) Faculty can engage in their own creative work. Through their own scholarship and research, they can discover new knowledge, and thus the information they share more than likely will be on the cutting edge;

(2) As an alternative, faculty can become involved in consulting and, therefore, stay somewhat abreast of new needs and developments in their sciences or disciplines; and

(3) Faculty can stay relevant to some degree by extensive reading of others' work. Those in this group, however, will find it very difficult to stay current.

A land-grant university must have faculty whose research and consulting work transcend the spectrum from the most basic to the most applied activity. In each case, though, it is altogether appropriate and fair to expect the faculty member to be *creative* and to *actively seek ways to contribute more effectively to academic and extension education.*

Research in Other Countries Important

It is not easy for faculty members or for university administrators to meet this challenge. In many respects U.S. agricultural research was for many years largely self-contained in the land-grant schools and USDA. Admittedly, U.S. agriculture has long depended on other countries throughout the world for new plants and animals. And the research of European scientists has been important for many of our agricultural fields. But U.S. institutions were truly dominant.

Increasingly, however, agricultural research in other countries including the lower income countries is relevant to the United States. Industry has also increased its agricultural research. Consequently, land-grant faculty must not only create opportunities to learn about research by colleagues in U.S. universities; they must keep abreast of work under way in industry and in universities throughout the world.

This need puts pressure on deans and university presidents to demonstrate their commitment by developing the funding for international activities. This is a tall order, but it is the only way graduates of our land-grant institutions will effectively contribute to the transition of U.S. agriculture.

Education at the Crossroads

Extension education must also reflect similar understandings. Learning takes place in the classroom at our institutions and the crossroads of our rural communities. Part of the agricultural transition involves people in rural communities understanding the opportunities to acquire and the importance of acquiring new skills in order to obtain different work. Such extension educational opportunities may be as important for these adults as the university educational opportunities are for their children. In many cases they may be a prerequisite.

Many readers of this article—and many of my civic friends—will surely say, "But Max, you left out a lot of important points." They are correct—I did.

At the same time I remind all of the most important point—that we now live in a world. That land-grant universities combining research, education, and extension can provide leadership in the transition of agriculture into this new world. That to do so requires a global perspective in research, changes in curricula at our universities and education at the crossroads of rural America.

The challenge facing land-grant institutions is not a matter of changing mission. Our mission is as sound today as it was 100 years ago. The challenge is to keep our focus on the goal, while updating techniques, curricula and programs to serve a rapidly changing world. ■