I've already mentioned, aimed at increasing financial stability for our food producers. But, as I also said earlier, we are not completely masters of our own fate in this regard. We are influenced by what the European Community does — by what the United States does. And beyond that, agriculture is a business that has always had its ups and downs. But people still have to

eat and those areas that have a climatic advantage will always be in agricultural production.

So, if you asked me my view of the future, I would say the long-term prognosis is good.

In closing, I would just like to say that I'm pleased to have had this chance to talk with you. And I hope you have an interesting and worthwhile three days.

The Challenges in Agricultural Education

H. VanderPol

The challenge in agricultural education is having the ability to produce professionals who can cope with the "real" world — a "real" world that includes all components of the modern enterprise. This presentation will attempt to provide one view point of this challenge.

Historical Perspective

In order to deal with the present and future it behooves us to, at least briefly, put a historical perspective on this subject so that a proper base can be established. To look at Agricultural Education from this historical perspective requires that we look as well at the evolution of agriculture, a look which for the purposes of this paper will restrict itself to the North American scene.

The interrelationship that has existed between agriculture and agricultural education is most complex. Suffice it to say that the needs of one have been manifest in the direction the other has taken. Unquestionably, the challenge over the years has been production, and consequently, agricultural education has focused, with limited exception, on this phase of our industry. This focus has served the industry well; as a matter of fact, currently there exists a very real danger that an overadjustment in focus might take place to the point that this ongoing integral component of our educational system will be relegated to a secondary role. This is something that is totally unjustified and, more importantly, inappropriate. North American agriculture will only survive and prosper in the long term if it is and remains technologically advanced and efficient. Historically, we've been able to achieve this objective and it must be maintained from an educational perspective; however, it is no longer sufficient as the sole component in achieving competitiveness as has been the case in the past. North American agriculture has survived on its productive efficiency and capacity; however, we must complement this with much more sophisticated utilization of other resources so as to develop a truthfully "most competitive" industry. It is not going to be enough to expect production technology to carry the day for North American agriculture. What will carry the day is

VanderPol is President, Roi-Land Farms Limited, Bienheim, Ontario. This invited paper was presented at the 32nd Annual NACTA Conference, Ridgetown College of Agricultural Technology, Ridgetown, Ontario, June, 1986.

an industry that provides those who choose to be part of it with the tools required to utilize all available resources to their fullest so as to put together enterprises that are and will remain "world class" competitive.

Today's Focus

Today, without question, the focus of agricultural education is changing — changing at a rapid rate. Unquestionably, in the last 10 years a significantly greater emphasis has been put on equipping our agricultural managers with the tools to become more efficient managers of financial resources. The current emphasis on integrating the management of financial and production resources is a significant and legitimate, long overdue, intermediate step toward what essentially will be the "full management package."

The focusing in on this management tool is the direct result of our industry's past follies with respect to production. We've seen what the green revolution can do and we've quite nicely managed to "out produce demand and under market supply." This naturally has shrunk margins and caused a demand to be placed on our agricultural education system to develop systems and individuals which can cope with this new phenomena. The traditional owner-operator in agriculture has been production oriented; however, today he has to be able to manage financial resources just as adequately as he has previously managed his fields and/or livestock. Even if he is equipped with the tools to do this successfully today, he will not be successful indefinitely unless he recognizes that he has not yet achieved the level of management expertise that will be required to survive and prosper in the future.

The next generation of managers are going to require the ability to manage a whole new group of inputs and outputs that will be part of the agricultural enterprise. These managers are going to have to have the ability to manage risk, in the form of physical and financial resource allocation; stress, in terms of the emotional component of human behavior, and people in terms of meshing functions with ability. This last component will more than anything else separate the truly successful from the just plain survivors.

Implications for Education

Let's then briefly look at what this means to agricultural education, and let's start by asking how this changing profile of the educational system's product can be achieved without destroying the system itself. The first impact this changing demand will have on the system will be the realization that in spite of what we've thought in the past, we're still basically training generalists in agriculture today — generalists who still have a large dose of production in their basic education. Unquestionably, there will continue to be a need for this type of basic education, but what will have to happen, if we are to meet the challenges ahead, will be a much more distinct form of specialization in agricultural education for those who choose the primary production sector as their career.

The system will have to continue to produce a product such as it has but with a "model" change to make it faster and more performance oriented from a production perspective. In other words there will be a need for more specialized production type graduates. This graduate will serve two functions:

- (1) He will or can become an integral part of a management team that will manage and not necessarily own a progressive profit oriented agricultural production unit — be it a super efficient commodity oriented business or a specialized agricultural production unit.
- (2) The individual with this type of specialized training will also have the opportunity to fill a legitimate consultative role to primary agriculture and will more and more be employed not by government but rather by the private sector. This role is evolving slowly; however, it will become more and more important and economically viable as professional managers take over the reins of the productive units in primary agriculture.

Obviously this type of graduate, also, is a prerequisite for post graduate work and as such must be well trained in the basic sciences. This training, as the agricultural sciences become more basic science oriented, will become even more important.

In addition, the educational system must realize that a whole new "model" of graduate must be built and marketed, and this is the professional manager who is conversant with the vagaries of agriculture. This product must be trained to be much more people oriented. To produce such a model will require dramatic educational program changes, but more importantly it will require major attitudinal changes in the educational hierarchy such as is gathered at these meetings.

The challenge before today's agricultural educators is, and ought to be, how can we produce a product that first of all can survive in the industry for the next 35 years and second, more importantly, how can we build a product that will in fact thrive, flourish and continue to lead our industry on its road to continued efficiency and prosperity.

To do this the system must recognize the legitimacy of the human behavioural sciences in a much more profound way. They are an integral part of

the successful manager's tools of his craft. Unquestionably, the greatest challenge that will present itself to agricultural management in the future will be the ability to manage people. It is such a simple reality of the natural evolution of the agricultural production system that it is unfortunate that this challenge has not been picked up by agricultural educators much earlier; however, it is not too late.

There is a very real need to direct new and additional resources towards this aspect of our educational system. It is not sufficient to just reallocate and refocus current educational inputs because (1) many current inputs cannot be redirected without major retraining and, (2) more importantly, this new focus must be complementary to those essential ones currently being stretched to the limit because of scarce and limited resources. It is absolutely essential that this new component add to, rather than replace, the other aspects of our agricultural education system. Our agricultural education system must become the source of that additional training that will be required by future managers in our industry. Without it, agriculture in North America will be faced with but two alternatives. One is to gradually regress into a protectionist enclave serving our domestic needs or secondly, gradually lose our international competitive edge and not even have the ability to serve our domestic markets because of our inability to compete with inports of all but a few basic commodities.

Conclusion

I have no reservations in saying that neither of these scenarios will be played out because the challenge to equip our managers of the future with the tools required and to train them how to use these tools will continue to be a recognized objective of our agricultural education system in the future. This challenge leads to many exciting opportunities for both educator and student — exciting opportunities that make being part of the system such a rewarding experience.

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