

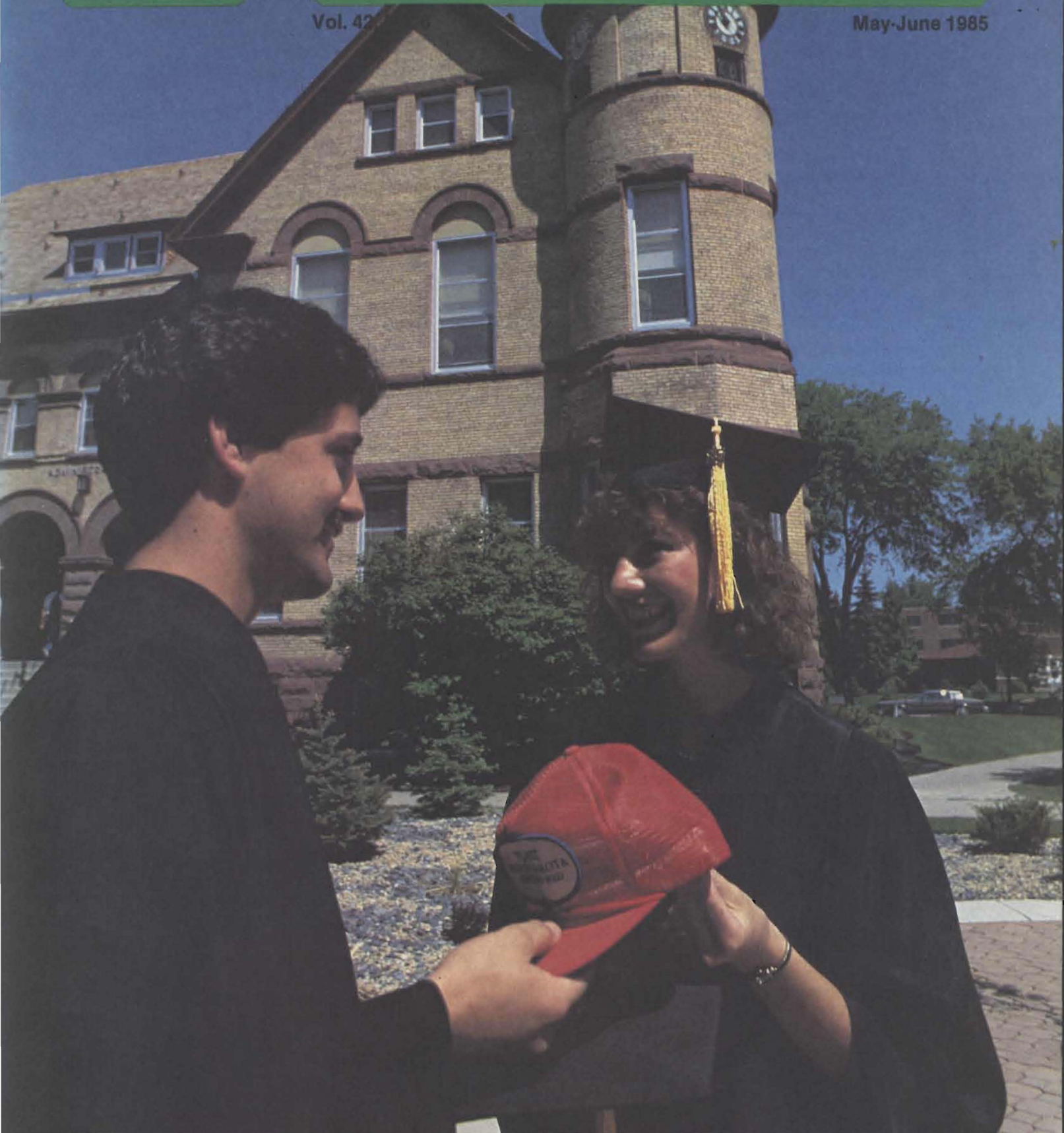


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Director's Column



R.D. Koob

Vice President for Academic Affairs

Two days before graduation from eighth grade I began a job as a stock/carry-out/clerk in my uncle's grocery store in our northwest Iowa farming community. What I learned in very short order was "whatever is good for our farmers is good for us." Thirty years later, as an employee of North Dakota State University, that lesson still appears to have been one well learned: if things are not going well on the farm, things are not going well for North Dakota or NDSU.

But one of the bright spots in a sometimes gloomy outlook portrayed in today's press concerning the "farm problem" continues to be the North Dakota Agricultural Experiment Station. There can be no doubt that the research done under the auspices of the Station has provided many benefits to North Dakota farmers, and, by my uncle's maxim, to the rest of us in North Dakota. The appreciation for the contributions of the station is evident from the enthusiastic support for the station's budget requests shown by members of the public during the recent legislative session.

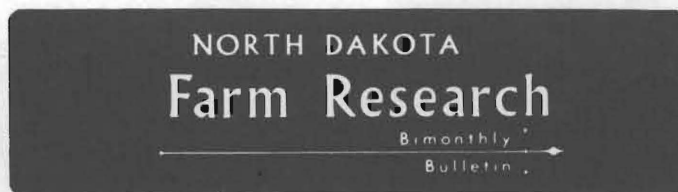
How does this "good thing" project into the future? No one needs reminding that the rate of change in our lifestyle is accelerating. Before 1980, I'd hardly used a computer; today, these comments were typed on one. The rapid onset of the "computer age," following quickly on the heels of the "space age," which rapidly replaced the "atomic age" and so on, reminds us that a decade from now we will be dealing with technologies which are presently unfamiliar to most of us. My own perception is that we are now entering the age of "bio" technology. The seemingly limitless variety of life forms offers tremendous promise for us to positively affect our future standard of living. And in the same way that the applied chemist has been at the forefront of materials development for the last half century, one may now expect the "applied" biologist to ascend to a role of dominance in the production of materials for the future. There is tremendous opportunity in this future for the experiment station scientist who is willing to think about his craft in more global terms than production agriculture. For it is the same kind of science that has made this country the number one agricultural producer in the world that will lead the way to emerging biotechnology.

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On the Cover: Two graduating seniors of the College of Agriculture Class of 1985 exchange their mortar boards for "ag caps" and prepare to leave the academic world to start their careers in agriculture. The graduates are Dan Weiler and Marilyn Artz. Photo by James Berg.



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hogs. In my absence from North Dakota, the state had become the leading state in barley production. Less barley was being fed to livestock than in the 30s. A bit of research on changing the physical form of barley rations by pelleting and improving the protein and mineral supplementation showed barley to be very competitive to rations based on corn. Synthetic lysine, the most limiting amino acid in cereal grains and cereal proteins, except soybean oil meal, became available at \$35.00 per pound (now less than \$2.00 per pound). Fortunately, a commercial company provided adequate amounts of lysine for research.

The lysine availability permitted the improvement of swine rations based on barley and proso. At present adding lysine to sunflower seed oil meal makes for a useful replacement for soybean oil meal in barley and corn based rations, particularly with the cost advantage. Research on barley, particularly on comparisons of barley varieties, is ongoing.

The many by-products of North Dakota crops, such as beet pulp, malt sprouts, and even screenings, were evaluated for use in rations.

Since little information was available on crops grown in this state for feeding to livestock, hard red spring wheat, durum, triticale, proso and even sunflower seeds were given attention in rations for both cattle and swine. This was made possible by the legislature funding the Research Center. The first research in that facility was started in 1960. Other research was of much interest. The ionophores, rumensin and lasalocid and others have been of tremendous advantage to cattlemen.

Three committee assignments have been very satisfying to me. The first was on the Scholarship Committee in the college of agriculture. It has been particularly gratifying to note the increase in money for scholarships provided by individuals and organizations for worthy students. The growth of funding has been fantastic since the early 50s.

The Project Committee of the Experiment Station was started in the middle 50s. The improvement in the proposals, methodology, and direction has been nothing short of fantastic. This is not to demean the greats that have gone on before, people such as Shepperd, Schalk, Amidon, Bolley, the Waldrons, Flor, Smith and others. This improvement reflects the improvement of facilities, equipment and training of the newer scientists coming on board the Experiment Station.

The third committee to give a challenge and satisfaction was the National Research Council - Sub-Committee Sheep. For 20 years all available world-wide publications had to be reviewed and evaluated in an effort to ascertain the minimum nutrient requirements for sheep production. The publication is now out of date. I hope that a revision of these requirements will be forth coming to allow for the change in type, growth rate and increased production of the present day sheep.

All these activities will be missed but the time has come to let a younger generation take over.

Continued from page 2

Education in agriculture must be similarly flexible as it, too, has much to offer a rapidly changing world. As the number of farms continues to diminish, there will be at best a stabilizing need for traditionally trained people in the traditional fields of agricultural education. But there is a parallel change going on in our urban areas. There has been tremendous pressure for workers in urban areas to find more rural settings in which to live. The first indication of this in post WWII America was the blooming of the suburbs; but the last decade has seen considerable movement beyond the suburbs. In other words, our future is likely a much closer blend of urban and rural needs and values. This trend offers a tremendous opportunity for agricultural educators as

the demands for the skills they offer in their traditional disciplines grow ever greater. These skills must be cast as a changed perspective—a perspective that recognizes that the “agricultural student” of tomorrow is as likely (more likely) to reside in a “rurban” community as on the farm.

It seems more likely to me that my uncle thought of himself as a practical businessman rather than a wise man. But the wisdom that grew from that practicality led to a maxim which has held true for many years, and, in a more global view of a changing America, will hold true for many years to come.

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