

Keynote Address

The Role of the Veterinary College and University in Educating Veterinarians with Emphasis on Food Animals

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Dr. Noordsy: Dr. Acker is the eleventh president of Kansas State. As President, Dr. Acker is administratively responsible for about 2,000 research and extension faculty located in more than 120 locations in an institution of about 19,000 students. Dr. Acker was reared on a 130 acre livestock farm near Atlantic, Iowa. I know that he was personally introduced to veterinary medicine early in his life because I am acquainted with his veterinarian. I know it's conceivable that his veterinarian, Dr. Schumann, might actually have been the person that steered him toward Kansas State, and a love for veterinary medicine. He received a Bachelor of Science degree in Animal Science and a Masters of Science degree in Animal Nutrition from Iowa State and a Doctor of Philosophy degree in Animal Nutrition from Oklahoma State. Upon completion of doctoral studies in 1955, Dr. Acker returned to Iowa State University to teach and to do research in the department of Animal Science. In 1962 he became Associate Dean of Agriculture, the director of Resident Instruction and Assistant Director of the Agriculture Experiment State at Kansas State. Now you talk about lend-lease, here's an example of lend-lease. Unofficially he left Kansas State in 1966 to become Dean of the college of Agriculture and Biological Sciences and Director of the Agriculture Experiment Station at South Dakota State University in Brittany, South Dakota. During the last several of those years he was director of Cooperative Extension Service. I alluded to the so called lend-lease arrangement because at the time he left Kansas State, Dr. James McCain at that time predicted to Dr. Acker that he could some day be a college president. In 1974, Dr. Acker became the first vice-chancellor of Agriculture and the National Resources at the University of Nebraska at Lincoln and the next year he became president of Kansas State University thus completing our lend-lease. Dr. Acker served as chairman of the Division of Agriculture of the National Association of State Universities and Land Grant Colleges and was Co-chairman of the USDA planning task force on quality of the environment. He is a member of the National Academy of Sciences. He is past president of Gamma Sigma Delta the international honorary society of agriculture. He's author of a textbook that is used in approximately 60 colleges. And in order to really find out what the grass roots of the education system are, he is teaching a class in freshman agriculture to see what the student really wants in the present day university system. I might also state that he was recently bestowed the national 4-H alumni award in Chicago, which is one of only 8 awards presented every year, and I understand a very select group as far as the world is concerned. He will be speaking this morning on the role of the veterinary college university and educating veterinarians with emphasis on food animals. It gives me great pleasure and honor to present to you a very dedicated and knowledgeable agriculturist, a college administrator, a teacher, a researcher, a friend of veterinary medicine and he happens to be my boss, Dr. Acker. (Applause)

Dr. Acker: Thank you very much, John. Yes, John Schumann did have a positive influence on me and it reminds me of the high regard and respect with which you and your colleagues are held in your communities. As a teacher of freshman animal science or in the past orientation courses in the college of agriculture, I often asked students what it was that prompted them to consider going to college. And nearly always the vocational agriculture teacher, the

county agent, the local veterinarian, the work unit conservationists, are mentioned as persons that gave them some encouragement, perhaps served as the ideal against which they matched what they expected of themselves. I think back following Dr. Noordsy's comments about Dr. Schumann and the respect in which he was held. Also, Dr. Jim Bailey who is now on the staff of South Dakota State University and another veterinarian in my home community. I remember way back, it must have been about 1938 or 39, when Dr. Schumann had first moved to our town. We'd gone to town almost before milking was done to watch the circus unload. And I remember sitting down on the curb just in front of the railroad depot and how proud my father was that he knew this new veterinarian in town and he introduced the rest of us to him and his family. Yes, you do occupy an important and a prominent professional and societal position in your individual communities. You are looked upon as leaders and we respect that very much. I appreciate it as one individual having been the beneficiary of some interest and attention on the part of some people I respected very much. I have been impressed as I take a look at the total conference program, the breadth and the depth of the topics covered, from the scientific proceedings to demonstration, techniques and also the art of veterinary medicine. I am pleased to see involvement by faculty members of a number of colleges' departments of veterinary medicine or veterinary science, and we are especially complimented to have a number of Kansas State University people in veterinary medicine and related fields as a part of the program and playing key roles in the total organization, including the planning. Yes, I want to talk a little bit this morning, if I may, about veterinary medicine and the animal industry, the relationship of the university to you and your profession and what I might call a positive attitude or positive approach to animal agriculture and veterinary medicine. I appreciated so much Mr. Sweet's comments and his reference to a positive versus a negative attitude. For several years while on the faculty of Iowa State University I had the responsibility of a winter short course. I went out across the state and visited the home farms of young men, and a few young women, who would be freshmen either in the four year program, the two year program or the winter quarter program at Iowa State in agriculture. I remember going up to the back door of a farm in southern Iowa. The mother met me at the door and I introduced myself, and said that I had stopped by to get acquainted with her son. She seemed surprised, maybe she was surprised, that a college professor would come visit. I said, "Your son is going to major in agriculture this fall at Iowa State," She said "Yes, but I really don't know why. Things are really not too good. Prices aren't the best, you know. If he does want to go on to school I don't know why he doesn't go and train in something else and then at least if he can't make it on the farm he's got something to do." And I

said, "Well, do you have a basketball program in your community?" I happened to know Iowa sports pretty well at that time and I knew they were pretty good. I said, in the fall of the year as the basketball season approaches, your coach doesn't say "Well, fellows, there's no use in practicing today. We just as well go down and shoot pool so we'll have something to do when we get beat in the sectional tournament."

In contrast to that conversation, I was back on the campus and a father came in from northwest Iowa. He was carrying with him a little brochure that described our winter short course, and telling me that he had a son that graduated from high school. He said, I've been reading this. Do you think it will do him any good? "Of course," I said I thought it would and that it would be a pretty good investment, relative to investment in fertilizer or protein supplement or what have you, and I talked a bit enthusiastically about it. He says, "Well, you know we're doing all right, but it gets tighter and tighter every year. A little more precision is needed in management, a little bit narrower margins. We have to handle a few more acres or do it a little bit more precisely." He says, "I use every thing that I have down here." He said finally, "You know my boy has a good opportunity. He can succeed, but he's got to be better than I am. If you think it will do him any good, he'll be down." He did come down and he took one winter quarter and then he took a second one and a third.

Yes, I believe in the positive approach. Let me talk about the meat animal business. In my judgement, we have a good future in the meat animal industry. Red meat and poultry consumption have continued to increase. In 1960 we consumed 161 pounds of red meat per person (carcass weight). In 1970, 185 pounds, in 1977, 194 pounds of red meat plus 53 pounds of poultry meat, again carcass weight, and the number for poultry meat have increased. We don't have an insatiable capacity to consume meat, but we have a capacity to consume meat and it has been increasing per capita.

Yes, Mr. Sweet mentioned the senate select committee and its recommendations. I have reason to believe and I am sure he does, and you do, that consumption of meat will remain at a high level and the report of the senate select committee will not have significant impact on meat consumption. Any strong public endorsement should it occur, and it is my strong doubt that it would occur, by any senate committee or any governmental body probably will not dramatically or quickly change food consumption habits or patterns. There is little evidence even that nutritional considerations would change food consumption habits, or that Americans would significantly alter their behavior to benefit their health even if that were an issue. A recent survey reported in the June 1978 edition of food product development concluded that predominant factors in food selection are cost, convenience, what a family likes to eat, social pleasure and the work involved in

preparation. In these issues, red meats come out well. With this understanding of human behavior and consumer behavior it is not likely that any public reaction or public endorsement of any dietary goals of any senate committee would dramatically or quickly alter food consumption habits. Even if we should consider that there might be legislation that would alter consumption behavior, legislation that would encourage people to change their consumption habits would likely not be consequential.

The 1964 Surgeon General's report linking cigarettes smoking with cancer and other diseases has not in the intervening 14 years appreciably altered the smoker's behavior. In 1960 before the report, 506 billion cigarettes were produced in this country. In 1976, 688 billion cigarettes were produced. Little significant change in smoking has resulted. What I am underlining here is freedom of choice. This is ingrained in each of us as U.S. citizens and is a basic and compelling reason for our behavior. We expect that the American diet will change only slightly. Yes, we do expect to see some changes in American meat animal production. But the industry has the capability to respond to those changes which consumers thrust upon us. It has changed before and it will change again. But it changes so slowly. The animal production systems in this country have demonstrated capability to change nutritional or quality characteristics of food in response to consumer demands and other influences and I might offer a specific example. I am suggesting here that as a result of the senate committee report and other awarenesses that we have, there may be changes in the nature of the red meat that we consume. We may move toward a more lean product. And we have been doing that for 20 years, but we'll probably not change sharply. If there will be a change, it might be a modest increase in the total quantity of red meat consumed, but let me illustrate the change in the animal product that can result in an industry, the increased leanness and the decreased percentage of fat in port during the 1950's and 1960's. Among the pigs from the Iowa Swine Testing Station slaughtered those years loin eye area increased from 3.22 inches to 4.90 inches and in ham and loin as a percent of the carcass from 32.3 to 43.3. Yes, the American animal industry has the capacity to change to respond to any consumer demand change that may exist. Yes, Americans likely will select leaner grades of meat. They likely will not reduce beef consumption in favor of grains, vegetables and fruits.

There is another reason why the animal industry, it seems to me, is in a good position today and will get stronger. The grass and crop residue that are available for animal utilization in the United States. Only 21% of the land area of the 50 states is cultivated. About 47% of the land area is pasture and grazing land. The enormous productivity of this vast acreage is apparent to all of you. But we have long studied and understood that ruminants for the most part are the major converters of grass to human food.

We haven't really increased our production of grass per acre very much in this century in the United States. We've utilized it well and it will continue to be marketed through meat animals. But the crop residue, the residue from the grain crop that is produced from the 21% of the land area that is cultivated, is massive. The residue of corn alone, the corn stalks and the husks is produced in great abundance and offers great potential for expansion of animal agriculture especially in cow numbers. In 1976, 84 million acres of corn were harvested in this country. There remained in the field about 2-3/4 tons of dry matter per acre, about 40-50% of the energy of the corn plant, the useable energy of the corn plant left in the field and for the most part nationwide not used except as organic matter for subsequent crop seasons. There were 231 potential million tons of cow feed not utilized. A major portion of this is not utilized, enough to winter by conservative estimates 70 million more cows if we just assume an average of 33 pounds per day, and if we assume a long wintering period of about 6 months. Mature cows are well adapted physiologically to utilizing such roughage. It's easy for us to see that we could double our cow numbers in the United States were we to concentrate on utilizing this roughage as well as the roughage of soybeans and the other grains.

Therefore I believe that we are in a positive time. We should have a positive attitude toward the future of animal agriculture and the role of the college of veterinary medicine. We're proud of the role of the veterinary medicine college at Kansas State University now officially called the Kansas State University Veterinary Medical Center. We were successful this last session of the legislature to establish a separate agency if you please, a separate line item for the appropriation for our college of veterinary medicine program. We think this has many distinct advantages. New facilities covering a little more than 11 acres under roof, constructed over the past 7 to 8 years, just short of a half million square feet. Something we are extremely proud of. About 75% of our graduates go into private practice, about 3-5% in governmental regulation inspection work, about 3-5% in graduate studies and others elsewhere in specialized services. About 45% of those who go into private practice go into mixed veterinary practices. I recognize that a good many K-state graduates are in this audience this morning. From where I sit, as a president and having worked very closely as a curriculum committee for a university and a curriculum committee in the College of Agriculture and the Department of Animal Science and a faculty member in the department of Animal Science and an advisor of pre-veterinary medicine students, as one who has taught applied animal nutrition to juniors in the college of veterinary medicine, yes, and in a few instances had the privilege of serving an extension role and handling extension type programs for practicing veterinarians in a few instances, I believe that I understand the role of a college of veterinary

medicine and I would verbalize it this way, to graduate persons at the highest professional level equipped to function with prescribed abilities and talents and with an understanding of those abilities and talents and as well an understanding of the limits of those abilities and talents. To graduate persons with an appreciation for other disciplines and talents that can be utilized for maximum professional service to meat animal producers. Yes, it is the role of the college of veterinary medicine to teach basic physiology, anatomy, histology and pharmacology. It is also to teach techniques and practices. It is the responsibility to provide or insure the provision of internship type experiences. It is the responsibility to instill the understanding that knowledge continually unfolds, and I would offer an illustration.

You know some say that knowledge and new knowledge is like the pages of a book, and we begin opening the book years and years ago and turning the pages and the farther through the book we go, the more difficult it is to turn each page because mother nature has a habit of locking the secrets a little more tightly. It takes longer and because it's more difficult to turn the page, we respect the new knowledge even more. Yes, and I believe it's the responsibility of the college through the individual faculty members to be so enthused about their discipline that this love of learning and the love of the discipline rubs off on the individual student to persist in them throughout their professional lifetime. Let me illustrate. A freshman came into my office a number of years ago, a freshman enrolled in the college of agriculture. I noted his background. His parents had been associated with the military. He'd lived mostly in urban centers, and only as a junior in high school had they relocated in Salina, Kansas. His father had been assigned to Schilling Air Force Base. As a senior, he had enrolled in Vocational Agriculture and then he had enrolled in the College of Agriculture at Kansas State. I asked what brought it about? What developed your interest in agriculture? "Well," he said, "when I enrolled in high school at Salina, through a buddy of mine I got acquainted with the vocational agriculture teacher and he said he was so enthusiastic about agriculture I figured there must be something there." That's the kind of enthusiasm that I'm suggesting is so important and so common in a professional college like the college of veterinary medicine.

It is the role of the veterinary college also to provide continuing education to the practicing veterinarian and as well to support our total extension education program, and in doing so to utilize not only the college of veterinary medicine and the disciplines therein but also the entire university. I believe that we should effectively utilize for the benefit of the practicing veterinarian not only the disciplines in veterinary medicine but also economics, business, animal nutrition, animal housing, genetics, waste management, financial accounting, communications and any discipline that is available on the university level that can augment the effectiveness and the

satisfaction of the practicing veterinarian. It is also the responsibility in my judgement for the college of veterinary medicine to provide continuing education support to the animal technicians who may be a part of the veterinary medicine practice. Or to see to it that continuing education assistance is available to other members of the staffs of the veterinary practitioner and the veterinary clinic. The total university should be available to our total clientele. The diagnostic laboratory, a unit that I see as so crucial not only to the effectiveness of a college veterinary medicine or veterinary science department but so crucial to animal agriculture in our individual states as well as to the entire United States. It is a backup for the practicing veterinarian. It is the line of secondary defense. You may say primary defense. It is the instrument on which the animal industry depends for service to the veterinary medical profession. Yes, usually at a land grant university it is supported in part by public funds for a very specific reason. It is important to the total economy of the state and its supported in part by fees because it does back up and make more effective and insure the effectiveness of the individual practicing veterinarian.

We recognize it on the university campus also as the eyes and ears, an important pair of eyes and ears, for problems that may surface in the state. A number of years ago, I picked out the 15 leaders of the poultry industry in South Dakota and I took about three days and visited with each of them. We were at a point in time when we were reviewing the future of our total poultry science program at South Dakota State University. I asked them four questions and one of these questions was what should the university be doing for your industry in priority order? The number one answer was, more feedcosting because feed is 80% of the cost of producing eggs in South Dakota. Number 2 was provide good backup in poultry diseases and poultry health and the first thing you need to do is inventory the poultry health status of South Dakota. The unit equipped to do that was the diagnostic laboratory, and at that point they were already engaged in doing just that. Yes, it is a good pair of eyes and ears for a total university program to support the veterinarian and the animal industry. Persons in the diagnostic laboratories must have the most available skills and the talents. It must be impenetrable. It must be accurate. It must be precise and it must have a good response mechanism if the diagnosis is known early. Yes, every veterinary science department, every veterinary medicine college has to have its own set of clearly delineated priorities in support of the veterinary profession and the animal industry.

I have not yet mentioned research and I should. Research on those high priority problems of the state or the region, not every unit can be doing all research and all disciplines. We are so thankful for the new Animal Disease Research Act and some of you may not be acquainted with that act which will provide some federal funds to augment research programs in

our colleges and universities, colleges of veterinary medicine and department of veterinary science. We are fearful with spending limitation concerns that this may not be funded on a continuing basis at the level that it needs to be funded. And we seek your communication with your respective congressman or senator. Beyond the college of veterinary medicine, there is a role to be played by the total university to help prepare the veterinarian and in continuing education and in diagnostic work, yes and in research. First of all the preveterinary medicine student. Yes, I know what these students want today. The students that I have in my introductory animal science course, a good many of them, want to enter the college of veterinary medicine and they are sure gunning, I'll tell you! Some of the roughest decisions that I have had to make the last four months have been whether to give a one point or not give a point on a essay question because I know how badly these students want a good grade to qualify for the college of veterinary medicine.

The basic animal production and production systems, food processing and distribution, economics, but also the business management of professional practice. Something I think that the university must make a contribution to is the training of a professional veterinarian. The philosophy and ethics of professional practice and education for the total life. A university is a scholastic and academic community and I want to be sure that the veterinary students not be removed from what goes on in the total university community. Some would ask today whether this good strong animal industry and the economy, the economics of our time, can meat animal production systems afford a veterinarian? Well, in my judgement a meat animal producer cannot afford not to use good veterinary service. Recent statistics show that every dollar spent in this country on veterinary service returns between 7 and 9 dollars. Yes, I know that individual producers make their own decisions. I've also observed that there has been an increasing tendency of good aggressive veterinarians to use and to spread their talents, their abilities more widely by more effective use of the para-professionals. We were proud during the time that we were in Nebraska of the program at Curtis, Nebraska, our two year school of technical agriculture at Curtis, and the animal technician program there which has to date graduated 289 students since 1970, 60% of whom are employed as animal technicians working with private veterinarians and diagnostic laboratories, in clinics, some in research and a few in medical schools. The average salary at \$625.00 per month ranging from 500-1200 means that they can be economically used to widen, to spread more widely the talents and abilities and capacities of a veterinarian or a total veterinary medicine clinic.

I am pleased and proud to see the degree to which the veterinary profession, more rapidly than the medical profession in some states, has adapted to the use of para-professionals. I think it was a wise move.

We are all part of the same team in support of the animal industry, you as a veterinarian, the veterinary medicine colleagues, the veterinary science department, the department of animal science, the department of agricultural economics, the department of entomology and parasitology, the organization may vary on your campus, the department of biochemistry supportive of the total animal industry and through the practicing veterinarian in many, many instances.

I believe that the future for the veterinarian is bright. You are able people, adaptive, you are well educated, you and your colleagues. You are appreciated by society, and industry badly needs you. You are backed up effectively by colleges of veterinary medicine, departments of animal science. And I might say that some of many of the real satisfactions that have come to me in my work as an administrator have come via the department of veterinary science at South Dakota State.

The department of veterinary science at the University of Nebraska, the college of veterinary medicine at Kansas State and the programs and the successes and the effectiveness that they demonstrate. The future for the veterinarian is bright because of the solid livestock industry. People want meat, they eat meat, they want to eat more meat, they can buy it and there is potential for growth in the animal industry. Yes, it's a bright business and the future for the veterinarian in my judgement is very

strong and very bright. In fact, I can have some envy for you. I can't go along on the ride with you—but I can have some envy for you. Especially those of you who recently graduated from Kansas State or some other college of veterinary medicine. Knowing these good things that I know about what surrounds you in your environment. Yes, I might be envious. I can't go along but I'll at least watch.

It's kind of like the young fellow from up in Holt County in northwestern Missouri. Up there in the bluffs along the Missouri River, he and his family had not had much chance to travel. He had an aunt living in Denver and when he graduated from high school she gave him a graduation present of a ticket to come visit her in Denver and to see the mountains and he was thrilled. He went down to the airport, he had a reservation, and he went up to the counter and he asked the gal behind the counter, "what time does the plane leave?" And she said, "12:00." "Well, what time does it get into Denver?" "12:01." Now up there in the bluffs, he hadn't paid much attention to the change in time zones and he was shocked, and his jaw dropped and he backed up a little bit and she said, "well, are you going?" He shook his head a little bit, and he said, "no, I don't think I'm going to go, but I'm sure gonna watch that thing take off." I can't go along, I've got some other things to do, but we're going to watch you young graduates take off. Thank you very much. (Applause)

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