

Opportunities and Problems of International Meat and Milk Production

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Dr. Harris, bovine practitioners, ladies and gentlemen, Dr. George Mehren. People have been up here this morning and have welcomed you to California. This weather is certainly ideal for anyone attending a conference in this city. From my office, which is about 700 feet above Montgomery Street, it is so clear this morning you can see for about 60 miles at least in every direction and the rocks and moss out in the Ferrel Lawn Islands which are in the Pacific Ocean, 32 miles west of San Francisco, were very clearly visible this morning. But, you know, this has been known as the land of milk and honey, but rather than have this kind of weather, I wish to heck it would rain day after day. If we don't get some, we're certainly going to have less milk, and these flowers are going to be so dry our production of honey will be way off. I would rather have you folks have a miserable time in the rain than to lose our status as the land of milk and honey.

My discussion with you is not going to be nearly as scholarly as Dr. Mehren's. I just want to share with you some of the impressions I have gleaned from overseas, mostly in short visits, in mostly less-developed countries. There are no great conclusions that I want to draw from this but I just merely would like to share with you some of the impressions I have. Possibly out of this we'll have some indications of the opportunities there are for people in the veterinary

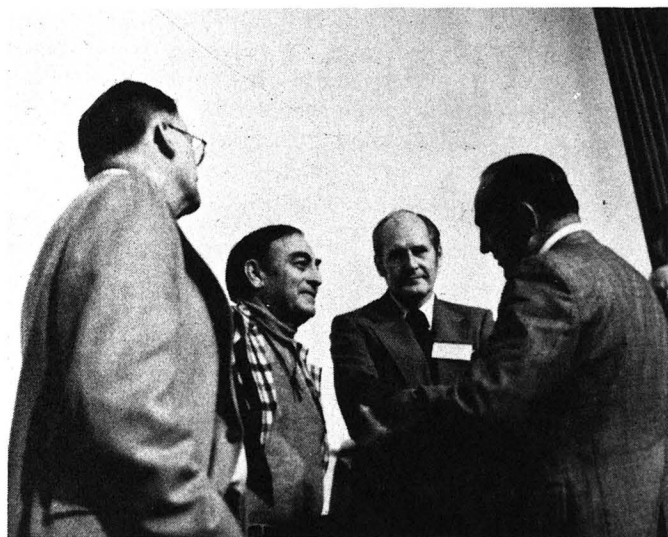
field for doing something to enhance world food production, particularly in the lesser developed countries.

Dr. Mehren made a very telling point when he discussed the significant changes that will be made in the production of dairy products, red meats, poultry, and the feedstuffs required to produce our total supply of meat. However, there is another fascinating aspect of the livestock business in the United States and that is, as he mentioned, this flexibility—the ability to react to either adverse or positive conditions. In fact, other facets of the agricultural industry, such as the economy, are even more flexible than the livestock industry which is tied in somewhat with its natural cycles. The U.S. farmer makes changes more quickly and these kinds of shifts that our growers make can immediately have an impact on the production of the commodity. Now, unfortunately, in almost all the other countries this degree of flexibility is nonexistent. This is a generalization but one that is true. When talking about the desirability of increasing food production, one has to recognize there are some very formidable obstacles in the food production systems of almost all countries that inhibit making substantial progress in the near term toward the increase of food supplies that are necessary for either internal consumption or to generate export currencies.

Let me just spend a few minutes talking with you about some of these inhibiting factors. For instance, many countries have surplus land available. There are certainly enough people and, in many cases, insufficient funds is not really as big an obstacle as it might seem at first glance. The need for increased food supplies is almost universally recognized. Well, if a country has enough land, it has enough people, it has a need and no serious real lack of capital, what keeps its people then from doing a better job of producing food, including meat and milk?

Here are a few of the defeating factors: inexperienced governments, external politics, internal politics, cultural problems, tribal warfare or tribal frictions, and/or the lack of some very basic infrastructure including technology and in some cases the lack of capital. Let me describe in a little more detail each of these adverse factors.

Inexperienced government: Many of the developing nations are relatively young. The majority have experienced a turbulent history. The movers and



shakers in these countries usually come from a very small segment of the population. For the most part they are young, bright and very eager. Very likely they've been educated in their own countries through the primary schools and then they received their secondary and advanced degrees in Russia, Red China, the Balkan countries, Europe, and some in the United States. But because their own governments have been so unstable, few of those real leaders have ever received any real experience after they have been educated, gone home and gone into government. The majority of them have been exposed to socialist and communist forms of government. And, so, when they do come home, the inexperience of the leadership in basic management and government begins to show through and, more importantly, it inhibits progress in doing the kind of thing they need most to do and that is improve the indigenous supply of foodstuffs.

External politics: The influence of external politics is easy to understand. One has only to look at the European economic community or the alliance of African nations or the OPEC bloc of oil-producing nations to recognize that very few decisions are made on a unilateral basis. Most of the decisions by those blocs are strongly influenced by what the other member nations feel about a particular question. Although the decisions made on a group basis may not be good economics, and I think Dr. Mehren can attest to that, many may not even be good politics. They may be the best decisions that can be hammered up at that particular time. However, this kind of awkward decision-making does inhibit the flexibility of the individual members of a bloc in proceeding to maximize opportunities in a particular direction such as food production and the exploiting of surpluses to generate foreign exchange.

Internal politics: This, of course, is a bearcat in almost every country and a major inhibitor of many of the less-developed countries which have rapidly increasing populations and short falls in food production are governed by people who have organized governments which are awkward, inept, and unwieldy. Many of the ministries overlap one another in responsibility and their occupants are trying for power, status and political position. Many governments are plagued with corruption. I add parenthetically that the food system in a less developed country is particularly vulnerable to the skimming of funds arising out of transactions in food. In-fighting among domestic department heads also inhibits development of the flexibility needed to maximize the production of foodstuffs. You know, when you go into some of these countries, for example, you can see that one ministry will insist on a program that might be designed to increase the supply of corn. Another department may control all the imports licenses needed to import better seedstocks, fertilizer, and pesticides that would promote the increased corn production. They fight among themselves and the result is that some of those things are not imported and you don't see any direct impact on corn produc-

tion. To greatly increase food production also requires a working system of technical assistance. However, the technicians in these less-developed countries are few in number and many of them are deskbound. This, I might add, is not universally true, but it certainly is true in a majority of the cases. In a few countries there are projects in progress that involve the creation of field stations, staffed with technicians and veterinarians who are teaching the local small holders how to take better care of their flocks, their herds and their crops.

A number of countries that have taken some of their bright young people and have shipped them abroad to further their educations have been very greatly surprised that their graduates don't always want to return home. The pay scales and the opportunities for meaningful work back home don't compare to the conditions and pay scales available in the United States and in a few other countries where they may have been educated.

Culture: We have some cultural problems but nothing compared with the problems in the less-developed countries. Culture is among the most serious drawbacks to doing much to improve food production or even improve the existing system of food handling in the less-developed countries. Originally, when you look at a map, many of these countries were chopped up without regard to natural boundaries and/or tribal boundaries. In Africa, for example, some of the newly emerged countries are made up of six or eight different tribes and many of these tribes have been divided by country boundary so that 50% of this tribe is in one country and the other half of this tribe is in an adjoining country. These tribes have sharply different social and cultural characteristics. They have an inherent distrust of people from other tribes due in part to the eons of warfare they've been carrying on, and these distrusts and apprehensions have not been eliminated simply because you set up an independent nation and gave the people their autonomous control of internal affairs.

Let me give you an example of a cultural inhibitor. In a country like Zambia, for example, there is an ample population of cattle. In fact, there are about two million cattle in a country of five million people. The annual take-off of that livestock population in Zambia is about 15% give or take the amount of rustling that goes on! Some years ago it was up a percent or two, other years it was down. But compare that with the United States where the take-off in our livestock population is about 30-35% a year, unless I'm mistaken. Now, the reason for not doing more with the herd of livestock in Zambia is because live cattle are considered a status symbol, a measure of a man's wealth. The idea of selling off a native African head of stock to be changed into money that buys a big new automobile or television set is just not very attractive to that person. Some of the tribes in Africa are not very material-oriented at all and the lure of making \$2 instead of the \$1 they may have traditionally been

making has very little appeal to some of those people. Now, on the other side, of course, the economic incentive has been a major factor in changing the food system, but economic incentive is not always the great carrot that one would hope it might be. As part of the cultural problems one would have to speak about the literacy rate in most developing countries. It's extremely difficult to convey information to an illiterate population. People in many places of the world do not on an individual basis have access to power to run television sets or to run radios. And while these little transistor radios are very popular in some parts of the world, there is generally insufficient income to purchase these on a mass basis to improve the communications potential for the bulk of the people who are widely dispersed out in the bush or jungle and where there is no effective means of communicating. The literacy rate in many places is about 5% and that seems to be very common. That certainly doesn't permit dissemination of information through the printed word. One solution of the problem would be to set up demonstration teams that could visually demonstrate better ways to farm and ranch. Here again, the lack of technicians and the inability to travel around these countries with any kind of ease, the lack of communication, the inability to assemble people who don't always know what day of the week it is, what day of the month it is, and often don't know what time of the day it is and don't care much; in their cultural system they are not used to keeping appointments as we do in our commercial system! You couple that with their lack of basic reading and writing skills and you have to rank illiteracy as one of the very great inhibitors of doing a better job of producing foodstuffs.

Almost your entire program deals with problems that require scientific sophistication for their understanding, for their discussion and for their solutions. The opportunities, as I see it, are absolutely immense for practitioners and the problems are immense. But the solution to the problems isn't always in putting together huge laboratories as we have available here. Certainly it is an opportunity for good technicians. I believe a veterinarian possessed of good common sense and some practical on-farm experience could have a tremendous impact on animal and avian agriculture in some of the developing countries.

I'd like to take a few minutes to discuss or describe for you a few of these developments and progress overseas. In 1976, the World Bank (it did this before but I want to use 1976 because it's very recent) approved programs to assist in the agricultural developments in a number of countries. Of particular interest to veterinarians are two approved for Senegal. One involves a livestock program that will affect some 30,000 livestock owners in eastern Senegal. It is this country's first comprehensive effort to increase livestock production by traditional pastoralists through the combination of animal health and husbandry improvements. The cost of the project is about 13 million dollars. And, it's going to

fund the following:

1. To develop and operate a grazing scheme on about 3-1/2 million acres of presently understocked grazing land in the northern part of the country.
2. To improve animal health services throughout all of eastern Senegal.
3. To provide fellowships and opportunities for visits to livestock development projects abroad for the project staff and the pastoral leaders as well as training agricultural extension workers in livestock husbandry.
4. To monitor and evaluate the project and to formulate future livestock investment proposals.

Some of the 30,000 livestock owners in the eastern part of that country have traditionally been wanderers who graze their flocks over broad expanses of the African continent. This sort of program will have an impact upon the culture of the people inasmuch as the pasture program will tend to require that people have a permanent base of operations and in the future they may not be able to graze their livestock in the traditional manner.

Along with that are some very basic changes in practices in animal husbandry and animal health that are called for in this program. Every major animal disease is endemic in Africa and in some cases a number of good husbandry practices introduced by veterinarians could minimize the impact of diseases on livestock health and meat production. It certainly could raise the effective amount of meat reaching the consumer.

To cite another problem in Africa, soil and feedstuffs in many parts of the continent lack certain trace minerals, and I don't think I'm telling you much that you are not much more aware of than I am. But a good veterinarian could make a very positive contribution to the animal husbandry in an area by identifying those trace mineral deficiencies and encouraging the people, probably best by a demonstration like the FFA or 4-H's put on all the time. And it almost has to be that simple to encourage people to use stock salt fortified with trace minerals. Unfortunately, internal politics might again prove to be a problem. For instance, I visited a country in Africa. Because of the lack of foreign exchange in that country and the need for import licenses for every item that was purchased abroad, livestock operations there were without salt and trace minerals for a period of about four months. Now, if a country is serious about increasing its livestock and meat production, a good persuasive, charming technician might have to become proficient or use his native skills to overcome some of these blanket edicts that are issued by inexperienced governments. This particular government didn't recognize what kind of an impact this restriction on imports would have.

There is another project in the same country that I mentioned before that is going to cost about 15 million dollars which involves the improvement of both cropping and livestock systems. In particular, this project is in the Sudan area and it is designed to

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encourage 4,800 families to take up better livestock practices. The livestock-related portion of the program is designed to improve livestock husbandry through better animal health care and use of supplementary foodstuffs, to construct and operate a feed mill, to provide training facilities for project staff and farmers, and to finance a regional planning unit that would prepare a master plan for agriculture development.

The first project I described is estimated to require 25 man-months of sophisticated consulting, and the second is estimated to require 49 man-months. Certainly these are not projects that should employ tired bankers or politicians! These projects need the assistance of vigorous, capable, technically oriented people such as people here in the room.

Another project I would like to speak about is one that was approved for Gambia at a cost of almost 12 million dollars. This project will involve livestock husbandry, animal health and cattle marketing components for the whole country of Gambia. It is hoped that these funds will be sufficient to strengthen the agricultural extension service. Better livestock husbandry will be introduced and this will be done by providing staff, by expanding animal health campaigns and by setting up a pilot fattening cattle program. Under the project's sponsorship, a limited number of cattle markets, stock roots and holding grounds will be built. This program appears to be a project that will require some changes in the cultural patterns of the farmers and ranchers in Gambia if the benefits of the project are going to be maximized.

One of the reasons I stress that people going overseas to review these projects should not only be technically competent but also have a working knowledge of the industry can be illustrated from a report I received from one of my associates in an overseas branch. One of our branch's customers is a large cattleman and farmer who visited a very large property that was being offered to him for purchase and when he got back he got together with my friend, who is an officer in a bank, and he discussed the proposal. I want to quote from a letter I received from my banker friend. "He and I had already discussed the cattle operation as a likely loser. This part of the world raises grass cattle and Bob, the customer, has a few of these here at home. I hate to tell you how many people have approached us to look at feedlot operations. My pencil has been worn out telling people it won't work. The numbers are not there in relation to the markets available. Technically, it can be done; economically, the word "disaster" tells the story. The plain facts of the international beef business are marketing. What is known as quality in the U.S. doesn't fit what people in the rest of the world can necessarily afford or like. We look at feasibility studies emphasizing the upgrading of people's tastes. When they live on a subsistence income level and eat 12-25 lbs. of meat per year, volume for dollar rather than quality is what has to be set on

the table for these very large families. Beans and other cheap protein sources are the only way you can get enough calories on the table."

That just really emphasizes my strong feelings for the need of quality feasibility studies and the need for high quality technicians on the scene to implement some of the proposals that are made, I think generally in good faith, by people who have more missionary zeal than a practical appreciation of the problems involved in implementing some of these grandiose schemes.

Now, while there is a lack of vegetable protein in some places, the really great lack is animal protein. There are even enough animals in some places but because of cultural or religious reasons the animals are not or will not be utilized for human foodstuffs. I don't think any of us has enough time or patience to try to change these very basic religious cultures, for the most part, to try and improve in a significant way the available animal protein. I think, though, in other places of the world you can change the meat production picture and it might require only minor changes in the cultural patterns of the people and I think maybe a lot of this can be done with a little show and tell on the part of capable technicians. I visited some operations where the native cattle were being taken and they tried to upgrade these cattle by importing all kinds of exotic breeds basically from England. They got a beautiful animal out of the cross but that again isn't what the native population wants to buy and what they can afford.

The intra-structure unfortunately is not in place in many of these countries so that you can take this upgraded animal, process it, and market it in a country that has a need and can afford to buy it and that, of course, would generate some foreign exchange. But that isn't feasible in many places. A minute ago I quoted to you from this letter I received from my friend which said that people's tastes in these less-developed countries most often does not require a highly marbled, overly fat type of meat such as we have enjoyed in the past in the United States, but rather they want a mature, unaged (that is, unaged in the sense that it hangs for very long), lean, and, by our standards, a tough piece of meat. They butcher it on the spot, they sell it warm, and it is unaged, all right, except that the animal is usually four or five years old. They do have limited means; they have no refrigeration, that is, the mass of the people, and so the meat is sold on the spot and is generally consumed on the day of purchase.

Local tribesmen, wherever you go, probably would welcome some help in being shown better ways to utilize native feeds. Most of the less-developed countries have rainy and dry seasons throughout the year—they alternate, of course. During the rainy seasons the feed, mostly grasses, grows tall very quickly, and then with the stopping of the rains it dries up very quickly and matures. Many of these grasses lack in some of the necessary minerals and some of the stands of grasses are very vulnerable to

overgrazing. This puts a limit on how much mowing and green chopping and the like can be done inasmuch as weeds and less desirable varieties of grass very quickly encroach on the stand whenever the stand is weakened for whatever reason. I would think that technically competent people could do some basic research over there to lessen the dependence of some of these countries on imported inputs such as salt, minerals, vaccines, fencing, stock handling equipment, and imported concentrate feeds.

I was on a ranch, again in central Africa, and the man there was dipping his cattle every week to ten days for ticks. This is a 25 thousand acre ranch and most of the fields (they have done a lot of fencing) are divided up into what they call 1,000-acre paddocks. Since horses have such a short life in that part of the world, the cattle are gathered up every week by native cowboys (I guess you could call them cowboys) who run through the grass, the savannah land, and round up these cattle on foot. The population of cattle on this 25,000-acre ranch was about 1,400 head and the people who were housed on the ranch were about 250. Of course, many were small children and babies, but there is still a tremendous amount of labor involved in managing what is essentially a modest-size livestock operation. Incidentally, the cowboys were paid the equivalent of about 12 dollars a month, the families averaged five in number, and on the \$12 the cowboys had to maintain his entire family. He did not receive any ranch meat, housing he had to construct himself, but he was furnished cold water. There were about 100 active cowboys, so the monthly bill for labor was about \$1200. An animal that was sold in the marketplace live at that time was selling at about a third more than the market here in the United States. The ranch was just barely breaking even, and what they hoped to do was sharply increase the carrying capacity by getting into an improved pasture management program. The man who was the manager was formerly head of the national veterinary laboratory; he was an Englishman raised in Africa, a very competent person and greatly concerned with the inhibitors that I've been talking about to doing a better job on the ranch.

There are also some other problems. There are areas in Africa that are not hospitable to people or livestock because of the tse-tse fly. My understanding is that this fly is actually enlarging the area it populates so that the areas that might be available for settlement by people or to move livestock into are really shrinking in Africa rather than growing.

In Asia, the Middle East and Africa there are some vegetable protein sources such as groundnuts, cotton seed, palm oil meal, coconut oil meal and tapioca that could be used for feedstuffs. Many of these are not presently utilized and the lack of intra-structure and of processing facilities inhibits the use of all these vegetable by-products. Here again is something that people like yourself should probably get into and develop a better means to utilize that kind of

product.

Animal health clinics could be used in practically every less-developed country for diagnosing and dispensing simple remedies for some of the prevalent poultry and animal diseases. I know some of their diseases are not very simple and there are not any simple remedies, but just some very basic advice on management practices and some simple sanitary practices and medicines that are not too costly that can be used. These kinds of services are not available to the people in some of these countries.

I have mentioned and it is kind of a concern on my part that many of the technicians employed by these emerging countries are deskbound. There's a crying need for capable people who can go out into the countryside and dispense sound technical advice in keeping with the level of understanding and financial ability of the recipient of the advice.

Illiteracy, we mentioned, is a problem and a great inhibitor. However, again, good demonstrations could do a lot to overcome the lack of reading ability. I don't know that a group of people such as veterinarians could do much about correcting the illiteracy problem but you do have technical ability and you have been, many of you, anyway, involved in actual livestock husbandry so that by one means or another you could get the message across to even people who have little ability to read and write. There are certainly intelligent-enough people wherever you go. There is no shortage of brain power. The people are basically willing but it does take somebody with the requisite background and a unique ability to get the message across in a way that can be understood.

Up to now we have talked about professional people offering on-site, if you will, technical assistance. There's another aspect of technical assistance that is extremely valuable and could enhance the production of foodstuffs in less-developed countries and could be done without you leaving, let's say, this country. Several times a month we in the bank receive feasibility studies of major agricultural development projects in a less-developed country. Almost without fail they make good reading. Most read like novels, although they are not as explicit as modern novels are today. A few are real technical gems and I mean that in a complimentary sense. A proposed agricultural development has to be based on an excellent technical foundation to have any possible chance of success. Other considerations are important. A project must have the blessing of government. It should have an enthusiastic sponsor. But it is the quality of the project that is most important. How it fits in, or how it complements or uses the existing intra-structure, or how an entirely new environment will be developed should be a major chapter in every feasibility study. Unfortunately, many cover up some very great problems facing a project by using an escape clause reading something like this: "These projections of income from sales of meat products assume that the sanitary slaughtering, freezing and

transport facilities are available to handle the livestock produced by the project." Yet, it probably would be exactly in these assumed areas that the problems would be so great as to cream the project. Good people are needed who can look at these studies and begin to develop meaningful questions involving important aspects of projects. It is not the questions that are answered that usually torpedo a project, it is the questions that were never asked that lead to future problems.

There are many university people involved in teams that contract to do overseas feasibility work. They usually contract with governments, the United Nations, or aides or somebody like this. There is certainly a number of private organizations that do this work. It is probably extremely difficult to break into these organizations. The bidding for the work is highly competitive. I suspect that most of the entities that bid on these feasibility studies would have no actual interest in the implementation of the project. That would mean finding and putting expatriots into offshore locations handling the logistical, environmental, governmental, financial, social, managerial and physical problems that come up on the local scene day in and day out as you get into the implementation of a project. This, of course, would be

an extremely demanding assignment and most firms don't have the experience and desire to provide on-site management and counseling. There seems to be a need for organizations staffed with people who can conceive, plan, organize, and implement a project through to at least the break-even stage.

As I mentioned earlier, there is a tremendous opportunity in the world to do something about food problems. Dr. Mehren mentioned that we in the United States could produce enough food for everybody in the world. That's a possibility, but I don't think it is a practical solution. Most governments in these developing countries want to be less dependent on the United States. They want to have their production base in their own country and so we're probably going to see more emphasis on food rather than building a cosmetic auto assembly plant in some of these countries. People are finding out that the thing that is most basic is food. So they are putting a lot of emphasis on developing that. To do something about it takes good, dedicated and enthusiastic people backed by a little bit of financial muscle and a little financial staying power. If you have that, I think we can begin to affect the trends in a positive and meaningful way.

Thank you very much.

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