"WHAT I EXPECT FROM A CONSULTANT"

Management consultants, agricultural consultants, financial consultants, tax consultants are all a relatively new business service not available to business a few years ago. This fact is well proven by the assigned title of my remarks, "What I Expect From A Consultant". If your services were a time honored profession, I would feel out of place addressing you.

My first experience with consultants was about 1940. We were in the dry bean business. Beans were handled entirely in 100 pound burlap bags. Supermarkets were just coming into use. People were starting to wait on themselves. This marketing change created a demand for smaller containers for our beans. Should we use paper bags, cardboard cartons or the new product called cellophane? We hired a consulting firm to advise us the best method. The firm sent two young efficiency experts who spent a month studying the business and our problems. They didn't give us a satisfactory report. They tried to advise us on several other problems that were not in their assignment. They caused considerable turmoil with our employees, and they charged us for a lot of wasted time. We swore we would never hire another consultant.

I relate that story because it was a common experience of business at that time. I also believe that it illustrates how business began to get more complex at about that period of time. It is this complexity that has grown and created the need for services of consultants.

During the past 20 years, I have had exposure to many agricultural consultants, business consultants, tax consultants, insurance consultants, engineering
consultants and others. My remarks today will be direct and will outline what experience has taught me.

The fact that you call yourselves consultants sets you apart from other people. You must be a true professional, you must have a high standard of ethics, you must have good judgement, you must be able to get the confidence of your client, and you must be able to communicate freely with many levels of employees.

If we need a consultant for a certain problem, first we try to get references. I like to talk to people who have used the consultants services. Then with this background plus credentials or an interview, we try to decide who can best help with that problem.

Small companies like ours have much more need for professional consultants because we do not have the large staff of employees with many qualities of expertise. Our problems are often harder to define and also harder to solve because the solution has to be within the small companies ability to pay.

A good consultant not only pleases the owner or top management. Many times his biggest contributions are in working and communicating with middle and lower management. Actually, a good consultant can teach these people to solve many problems on their own.

An especially valuable trait for a consultant is to be able to provide a fresh approach with an impartial view point. Often times a difference of opinion between two segments of a business hold up progress. Possibly both sides have good ideas. The real consultant is enough of a diplomat to provide the fresh approach and bring the organization together.
Many times the problem is purely economic. A study in depth is required with facts documented. Will the solution save money? Will the new equipment pay its way? What is the real future of a certain business, for example, the dry bean business previously mentioned.

I could cite many more examples of how I think consultants should work and the multitude of various assignments they might receive. The real point I want to make is the fact that consultants must specialize in certain fields and have special skills and expertise to be chosen for an assignment. I believe as time moves on, you will see more consultants getting together in a consultant firm offering many fields of expertise. Organized on the same basis as a city law firm or CPA firm. If you have a lawsuit, you need a trial attorney. If it is a tax matter, you need a tax attorney. If you are applying for a bank charter, it takes an attorney trained in an entirely different field. Together, all of these lawyers present a very strong firm who can service most any problem.

From my experience, I would strongly urge that there would always be a written memorandum of agreement or a contract between the client and consultant. This memorandum does not necessarily need to be legal style. The main points should be: To outline the scope of the work. This should be in some detail, so there is no misunderstanding by either party as to how far the consultant is to go in his pursuit of the problem. The length of time needed to secure an answer should be part of the agreement. An outline of charges and how they will be paid is a very important part of the agreement. Sometimes the relationship is a continuing one where there is a monthly retainer plus certain other expenses.
Probably more dissatisfaction has occurred between clients and consultants because of the lack of this understanding. Therefore, I strongly recommend written agreement.

If a job can be estimated and a lump sum agreed on for the completion of the work, that is probably the most satisfactory for all concerned. The client carefully outlined his problem to the consultant. The consultant gave his client a price and then proceeded to do an excellent job oftentimes doing more than necessary. This builds confidence and good recommendations. Everyone feels that they got their money worth.

Some problems require an hourly or per diem cost plus traveling expenses. These are fine but they must be carefully documented and the consultant must not take advantage of a client.

There are problems such as animal nutrition or veterinary services that require monthly, weekly, or daily consultation and advice. These are rather permanent relationships that can be very satisfactory or they can be only partially successful. Usually if the parties don't cooperate the arrangements are cancelled. Too frequently the permanent relationships start well but one side or the other get careless and communication breaks down.

A real good consultant must be a persuasive person. Oftentimes his proposals are for new ideas or products. This makes the client confront new risks and uncertainty. He naturally rebels at first, but a good consultant will persuade the client by being sure that his client understands the need for action.

Remember, the consultant doesn't solve the problems. He suggests solutions, maybe two or three. The client must solve his own problem. It is the change for the better that is the ultimate measure of the success of a consultant.
CATTLE FEEDING PROSPECTS IN THE COMING MONTHS

SOME INTERESTING DEVELOPMENTS TO BE CONSIDERED

Iowa Bankers Convention - November 1956 - Des Moines

It is indeed a privilege and an honor for a Colorado cattle feeder to be invited to the great beef producing state of Iowa to address the Iowa State Banker's Convention.

I do not have a crystal ball to particularly guess the cattle market in the next year. Instead, I would like to visit with you about cattle feeding as a business, what has happened during the last few years, and some of the things that may happen in the future.

Cattle have been fed for slaughter for many years. Iowa has been the biggest producer and still is, so you gentlemen are very familiar with the general production of beef in the feedlot. However, cattle feeding is changing rapidly all over the United States. From the time feeding first started until about 20 or 25 years ago Iowa and the cornbelt had a monopoly on the business. Feeder cattle were purchased in the fall. They were fed roughage and whole corn, with hogs following the cattle. The fat cattle were sold when the feed was gone, usually at heavy weights without any worries of being too fat or not making the grade.

This type of beef production fit the distribution system that was available at that time. Cattle were sold at central markets and purchased either by large packers with national branch house distribution in most cities, or by order buyers' who shipped them alive to eastern cities for slaughter. Refrigeration was not available in every home, home freezers were unknown. The local butcher personally took care of each customer. These things have changed rapidly and, by necessity, so has cattle feeding.

Today most of the meat is sold through super-market type stores. This new type of selling beef is the basic motivating power which has changed beef production rapidly in the last ten years and will continue to force beef production to be economically sound.
Many of these new stores use self service. The customer picks her own food without influence from a butcher. This means that beef must be as attractive in appearance, as good a value, and the package or size of the cut must suit the help-yourself customer or she will buy other products.

In order to accomplish the things just mentioned it has been necessary to establish standards of quality and weights. These stores want the same quality product 365 days a year, which is difficult to produce with all the variable factors in the cattle business, but nevertheless it has to be our goal.

This new method of merchandising is largely the factor which has built the interior packing companies in your state. These independents are now the largest buyers in the livestock business. It is this system of selling which has made federal beef grading a necessity. Without the grading you could not have the uniformity in distribution all over the country.

Another thing that this system requires is a relatively steady supply during all twelve months of the year. We can no longer produce beef on a seasonable basis. With the demand for US Prime, Choice and Good beef there is no place for grass beef. To be marketable at a fair price all cattle must have some feed in addition to grass.

I mentioned previously that Iowa and the cornbelt originally had a monopoly on meat production. This was, of course, a literal statement, but many things today have changed this situation. One of the principal reasons has been the corn support program. By holding the price of corn up it has encouraged the production of hybrid corn all over the United States. Actually the corn belt is moving west. This year in Colorado on irrigated farms we have produced a fine corn crop. One hundred bushel
corn per acre is common. I know one farmer who has already picked, shelled, dried and sold his corn crop. He was paid for one hundred eighty bushels per acre. We have the same modern machinery you have in Iowa. Machines such as Picker-shellers, and corn combines. We also have large commercial drying plants. Ten years ago we imported all of our corn; this year I would guess we might have produced a third of our needs.

Corn and cotton supports have encouraged the planting of barley and the sorghum grains, usually referred to as milo, all over the country. These feeds are supported for less than corn, and they are sold for less than corn, consequently they are substituted in great volume for corn. In Colorado we use a mixture of the three grains depending entirely on the price relationship to each other. We are located in the area where all these feeds can be shipped in on a competitive basis. In California and Arizona barley is fed almost entirely. The Texas, Oklahoma and Kansas cattle feeding is based principally on milo.

The main point which I wish to make is the fact that cattle feeding is growing rapidly in every western state. In addition to this growth of cattle feeding in the west, I would like to make a prediction. I believe that cattle feeding will grow very rapidly in the southeastern states in the next ten years.

In the last twenty years freight rates have increased thirteen times. These increases on feeder and fat cattle have made it more necessary to produce and slaughter animals at the closest and most efficient point. The reasons mentioned plus several others are decentralising cattle feeding from the cornbelt to the entire country.

For example on October first in Iowa there are 844,000 cattle on feed, in
Illinois there are 392,000 and in Nebraska 358,000. Compare this to California where there were 519,000 cattle on feed October first, or Colorado with 194,000 and Arizona with 150,000. These figures do not tell the whole story because the western states feed cattle more consistently each month than the corn belt does. The government figures on fed cattle marketed during the entire year of 1955 show Iowa marketing 2,000,000 head to lead the country; California coming second with 1,500,000; then Nebraska with 1,200,000 and Illinois with 1,100,000 then several western states coming in order.

Many of the cattle in these states are fed in large commercial lots. Many feedlots feed cattle on a cost plus basis for ranchers and feeders. There are also many large individual feeders who feed only their own cattle. There are two opinions as to whether these large feedlots are economically sound or whether the farmer feeder is the best way to produce beef. Certainly you must accept the fact that a farmer with his own feed and equipment is hard to beat. On the other hand, the large feedlot has many advantages. They use labor saving mechanical mixers, grinders, feed trucks, etc. that the individual farmer cannot afford. New ideas, better balanced rations, more turnover plus the general tendency of all types of business to get bigger and bigger because of their efficiency.

I have mentioned some of the advantages of both types of feeding. I have quoted the figures showing the growth of cattle feeding in the west. I am not doing this to brag about my state. I am assuming that the reason I am on your program today is to explain to you gentlemen what is happening in the west, why cattle feeding is growing there and what the trends may be in the future. It seems reasonable to assume that the continued steady growth of cattle feeding in the west must be on a solid foundation or it would not grow and increase year after year.

With all these changes in feeding we are also seeing changes in marketing. The
central markets have declined; the interior packer has developed his own market in his area; auction markets have grown rapidly, particularly in the west; packer feeding of livestock has become a problem; the direct buying from producer to packer has caused problems; the great buying power of the large chains has certainly had an effect on prices, especially in periods of heavy supply. I do not like many of these changes, but considering all phases of the problems I am afraid we must live with them.

To me the bright side of cattle feeding is the fact that, while we have improved a great deal in the last few years, we are only in our infancy compared to poultry production or pork production. Poultry converts feed at the rate of less than two pounds of feed to produce one pound of chicken or turkey. Pork, I believe, is about one pound from five pounds of feed, while cattle are only about one pound to nine or ten.

Cattle are large expensive animals, their digestive system is the most complex, their life cycle is longer, therefore, the scientist has worked on the other animals first and they already have their advantage. The big improvement in beef is ahead so we can look to the future with definite hope and optimism.

Your college, Iowa State, through the work of Dr. Wise Burroughs developed Stilbesterol about two years ago. I believe without doubt this is the biggest single boost the cattle feeding industry has received. In fact, I think it was so effective that a large part of our surplus weight last year was directly attributed to the use of Stilbesterol. It is hard to believe that any product that had never been heard of before, could be produced and sold to probably ninety per cent of cattle feeders within two years time. This phenomenon proves how quickly our modern farmers and feeders are willing to accept new college proven ideas and products. The use of Aureomycin and Terramycin
are showing definite advantage under some conditions. Our Colorado State college is doing a great deal of hormone implant work with very promising possibilities. Literally every college in the country is working to increase the efficiency of beef production. We must increase this feed efficiency if beef is to stay competitive with other food products.

There are many bright phases to the future of beef production. First is the fact that beef is the number one choice of food for all America. Most everyone feels that beef is the top food in taste, satisfaction, diet, and value. This point is highly important because with the improvements we feel sure will come in the next few years, there is not much question that beef will remain number One.

The general tendency towards better living and the broader education of children with today's understanding of diets and body needs both point to the fact that the younger generations are going to be bigger meat eaters than we are. Such work as Dr. F. A. Kummerow at the University of Illinois has just released will boost beef popularity and consumption. The National Live Stock and Meat Board has financed research work with Dr. Kummerow for several years as well as with many other men at various colleges. This new report from Illinois shows that by increasing the protein or meat consumption that the cholesterol in the blood would be reduced and consequently there would be less chance of heart disease. This type of work is coming out each year and each year it proves more conclusively that meat is our best food. The larger beef consumption per capita plus the gain in population should let us live with a fairly large cattle population.

However, the only sure way to live with a large cattle population is to encourage the production of nothing but light animals. There is no reason to ever produce a steer weighing over 1200 pounds. Any animal larger than this is usually too fat, the cuts are
too large, the meat is less tender, and there is a general waste to the entire carcass. The super market buyer will either not buy the animal at all or he will buy parts of the carcass at a price. In other words, heavy carcasses are market breakers. Whenever we have just a few too many the whole market structure weakens and does not correct itself until the heavy cattle are gone. I only need to remind you gentlemen of the extreme cattle feeding losses of last winter, to refresh your memory of how undesirable heavy beef is and how really few good buyers we have for beef carcasses weighing over 700 pounds. You bankers could be a great help in future years if you would insist on your customers not letting their cattle get heavy.

Now to conclude these remarks we should discuss markets, prices, and supplies of cattle. We had a cattle population last January 1st of approximately 97,500,000 head of cattle, probably this January it will be about the same or up slightly. Many experts have felt cattle numbers were at a peak two years ago and would be declining now. However, many other people feel that with the shift out of surplus crop production into feed crops that we are likely to see a slow continuous gradual increase in cattle numbers. There is a marked tendency towards animal agriculture which is the only sound way out of our production difficulties. The soil bank is the first step forward in that direction.

The cattle market is the last eighteen months has proven what a free non-supported market can do. The ability of the fat cattle market to rise almost a third in two months is graphic proof of the health of the cattle business and the fact that we can live with these numbers if the weights are held down. We have an excellent fat cattle market now and I would guess that would have a reasonably good market for the next year. The feeder cattle market is comparatively low and is reflecting serious losses.
to the ranch producers. This wide price spread which is hurting the rancher is almost entirely produced by dry ranges. A shortage of grass, hay, of winter wheat pasture means that cattle must be sold. The rancher does not have winter feed enough to winter large numbers of cattle this year. This really means we will have large supplies of fat cattle for the next year because the feeders will have to buy this extra liquidation. These large supplies will probably hold the fat cattle market on a relatively steady level and not too high. Of course this extra marketing this year will possibly reduce next year's supply.

You have probably all seen the cattle on feed report for October 1st, 1956. This report clearly proves some of the statements I have previously made. It shows the trend of cattle feeding to the west. It shows the early movement of feeder cattle occasioned both by the drought and the fairly large spread between feeder and fat cattle.

I should like to point out a few details contained in this report. On October 1, 1956 we had 3,551,000 cattle on feed compared to 3,504,000 head a year ago. This is only one percent more, but on July 1st we had eight percent less. We also must remember that this October first number is the largest ever recorded on that date.

Cattle have moved early this year because of the dry weather and because of the advancing fat cattle market. Shipments into the nine cornbelt states for the July, August, September quarter were up 59% over last year. For the entire country this increase in in-shipments is 13%. The October shipments have continued on a heavy basis. However from now on in-shipments should lighten rapidly because the western range states are very dry which has necessitated an early cleanup.

In studying the weight groups of cattle on feed we find the increase is primarily in cattle and cattle weighing less than 900#. This means we should not have the large
winter marketing of a year ago.

Actually the large increase of cattle on feed is in shortfed cattle that feeders hope to sell before January first. Their intentions to market the cattle on hand October first show 26% to be sold in October, 25% in November, 22% in December and only 27% after January first. These are intentions. Since this report was made the fat cattle market has declined considerably. The spread between cattle grading US Good and US Choice has widened. Because of these two reasons I believe their intentions to market will be delayed.

We all know that we do not have the surplus of overfat longfed cattle of a year ago. These October first figures show we have plenty of lighter weight cattle. With less competition from pork we should have a better cattle market than last year but with the prospect of having the largest numbers of cattle ever fed, surely no one should get over optimistic about fat cattle prices.

I have tried not to burden you with too many facts. It seems obvious to me that with the large cattle population we have that we are always going to have large numbers on feed with no runaway markets. I have taken most of your time to try to point out phases of cattle feeding that you gentlemen might not be familiar with. It has been a pleasure to be with you.
Statement of
William D. Farr, Greeley, Colorado
Chairman, Feeder Committee, American National Cattlemen's Association
For Discussion at
Meat Clinic, National Association of Food Chains, Chicago, Feb. 20, 1956

"New Developments in Livestock Production, and Grading Problems"

I should like to thank you gentlemen of the Meat Clinic for extending an invitation to the American National Cattlemen's Association to take part in your program tonight.

The first subject assigned to me is, "New Developments in Livestock Production Which Effect Kind and Quality of Meat Available."

A synthetic hormone like material known as stilbestrol was announced to cattle feeders during the summer of 1954. The Pure Food and Drug Administration approved the general use of this product by licensed feed processors in January 1955. The product was tested by most state agricultural colleges last winter. Their almost unanimous endorsement has encouraged the use of stilbestrol until today it is estimated 80% of all the cattle in feedlots are receiving it.

I have sketched the history of stilbestrol from the time of Iowa State's release until today, which is only twenty months. It seems impossible that a product could be so widely accepted in such a short period of time. Many of our colleges are now working with other hormone materials which show some very interesting possibilities.

This fall antibiotics have entered the cattle feeding picture. In our feedlot all of our cattle receive a daily ration of aureomycin. Some feeders are using terramycin. These antibiotics are increasing gains, they are reducing sickness in the animals, they are generally adding to the health and condition of the cattle.

Another new product which is helping livestock production is the low level use of phenothiazine to control internal parasites. This product is definitely a help to cattle production in the southeastern part of the country.

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All of these products were first used in poultry production, then in hog production and now the cattle industry is receiving the benefit. The reason for this is; first, the lesser cost per unit of the birds or animals; second, the more complex digestive system of the ruminant animals. The nutrition men tell us that in their opinion, the products I have specifically mentioned are only the first in their search for better and more efficient cattle nutrition.

The immediate problem of the large supply of heavy beef is directly attributed to the use of stilbestrol. By a more efficient conversion of feed crops into meat, we have produced between 10% and 15% more gain on the animals in the same feeding period. The official weekly USDA figures show beef steers at Chicago weighing from 50 to 75 pounds more than last year. Feeders have not tried to produce heavy, less desirable beef carcasses for you men to merchandise. We have taken advantage of modern technology and have produced this crop of steers to heavy weights because it is really our first experience with these new feed stimulants.

The basic problem is the fact that you want USDA Choice beef. To produce this quality beef takes between 120 and 150 days in the feedlot. By adding new feed stimulants the gain is increased about 15%. This extra gain is an overall body growth. One of the requirements to make choice grade is fat marbling. The gain produced by stilbestrol does not hasten the marbling. If anything, it slightly retards it.

Therefore, to illustrate the problem; a normal gain would be 2.25 pounds per head per day for 130 days average feeding period, or a total gain of 292.5 pounds. Now let's add 15% extra or 43.8 pounds plus 10 days extra feeding in order to attain choice grade, which amounts to 26.2 pounds more or a total of 70 pounds extra gain which is the same amount that beef steers are weighing extra in Chicago at the present time.

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To pursue the weight problem a little further. We actually feed three different age groups of cattle. They are two year old steers, yearlings and calves, the latter consisting of both steers and heifers. The two year old steers supply a large part of the market in December, January, February and March; the yearlings April, May, June, July; the calves August, September, October and November. Of course, there are overlaps but the majority of the slaughter falls in this pattern.

Cattle respond to the feed stimulants approximately in ratio to their age and weight. Therefore, the greatest gain is being produced in the cattle we are now marketing. You also realize that the time of marketing these older cattle is rapidly passing. Therefore, I am quite sure that in another month the situation will be materially improved.

A word about the quality of beef produced by the use of these stimulants and others which may come along in the future. These products are developed by our universities with large research facilities. They have complete departments and meat sections where the results are checked in every way before they are released. In addition, the Pure Food & Drug Administration is very particular and require very thorough and comprehensive proof before they will release any products. The National Live Stock and Meat Board has conducted research projects by various universities on these products, to be sure the meat was either as good or better from a consumers standpoint. With all these detailed checks on new feed products, I do not believe you need worry about producers using products that will impair the quality of their beef.

My second assignment is "Grading Problems." I would like to mention several problems as we see them. I will be very frank and honest with the hope that your group here will develop some definite suggestions and plans to promote a better beef industry.
Our beef grading is conducted by the USDA on a voluntary basis, largely at the point of slaughter. We have the following federal grades: Prime, used principally by the high class hotel and restaurant trade; Choice, the most popular of all government grades used by most chains and super markets; Good, used by some retailers, but does not have a good acceptance in all areas; and Commercial, used by retailers where price is a factor. Other grades are Cutter and Canner and Utility. These are not retail grades.

These grade standards have been established by the various segments of the industry and are intended to best serve all phases. The grades can be changed at any time to meet changing conditions if the members of the meat team can get together on the improvements.

Producers feel that definitely there can be some material improvements in the grading for the benefit of all phases of the industry, and to make the service as effective as it was intended at its inception. I will make suggestions which have come out of our various meetings for you to consider.

Prime grade is the top grade of beef. Everyone seems to be relatively happy with this grade, particularly the fancy restaurants and specialty retailers to whom most of this grade goes.

Choice grade beef is a fine product. We are proud to be able to produce a product which has been so widely accepted, both by the retailers and consumers. We believe the word Choice has a great public acceptance and we suggest that the top retail grade retain that name. Choice is a relatively wide grade. I do not believe many of your members want too much of the top half of the grade because of excess fat. If it is true that part of the grade is too fat for retail beef, then perhaps it should be in the Prime grade for hotel use. It has been suggested that Choice grade be split into two grades. Where this split should be, if at all, is a question upon which the opinion of your group should have considerable influence.
Good grade, in our opinion, is the forgotten grade. Very few stores have championed this grade. We do not know why. We presume that low Good does not have quality enough for retail satisfaction. We know that Top Good is accepted by a few stores. In fact one of your people suggested at our recent convention in New Orleans that the beef his company wanted was the top part of Good grade. He suggested that Good grade be split because the beef in the top part of the grade had fine consumer appeal.

Commercial grade is in the final period of being split into two grades. The younger animals will be placed in a new grade known as Standard grade. The older animals principally cows, will be left in Commercial grade.

The suggestions that have been made by various groups at different meetings boil down to this. Prime grade is accepted at the top end. Commercial is suitable at the lower level. Therefore, the questions are: Should Choice be split, and should Good be split making four grades, or should they be split into three grades?

There are many things to consider in changing these grades. Most important is that unless the new grades will better serve the public, or help some segments of the industry to receive more for their production, then no changes should be made. Then the selection of suitable names for the grades must be made; names which have public appeal in relationship to the quality of meat so designated. The opinion of you men is very important on every point.

I would like to mention some of the more complex problems for your consideration also. The worst feature of Choice grade is the fact that so many chains and super markets have accepted the grade, promoted it in their stores and now demand it with no regard for any other quality of beef. This makes a production problem because many areas produce different types of cattle.

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When a cattle feeder buys his feeder animals, he must consider whether the animals have sufficient quality to feed to Choice grade. If they do not, he knows that the number of buyers will be greatly reduced at marketing time.

After he has purchased the right quality cattle, then he must feed them for the given number of days to be sure they grade Choice. If any set of circumstances prevent the finishing of the animals to Choice grade, then again the market for an animal grading Good is very narrow. In fact on many markets it is difficult to get a bid on live cattle that will not grade Choice.

If the grade below Choice was better accepted, the feeder would have the opportunity of feeding for at least two grades instead of one. This feature would be of material benefit to the producers.

The one grade retail demand has other complications also. In periods of heavy supply, such as we have had for over a year, it gives the large buyers a definite buying advantage. However, when supplies shorten the reverse will be true and your concerted competition for one grade will surely push the market higher.

With the majority of the retail demand concentrated on choice grade, it means literally all stores are handling the same product. When you advertise everyone has the same quality, so all you have to sell is price. We producers feel that this constant competitive retail price advertising has a lowering effect on the entire industry. We realize you must be competitive, but in so doing you constantly try to buy wholesale beef cheap and of course, it is passed back to us as constant down pressure by the packer.

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I am visiting with you men tonight at your invitation, trying to point out some of the problems of the producers, so that the overall industry can operate on a healthy basis. Today the cattle industry is sick. We feeders have taken constant losses for about a year. The last two months decline has actually broke thousands of cattle feeders. This means the rancher, who produced the feeder, will lose next. Then after a short period of liquidation beef will be in short supply. Your volume will go down, the buying advantage you now have will be reversed and your profits will probably be affected.

In conclusion we do not have any specific recommendations for this group. We are hopeful that you retailers will come forward with some positive suggestions to change and improve beef grading and other marketing factors of common interest. Beef probably holds the key to a more prosperous and stabilized agriculture than any other food product. Therefore, it behooves all of us to seriously try to improve the distribution and consumption of beef.

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My assignment on today's forum is to give you actual feeding experiences in the use of dehydrated alfalfa hay in fattening both cattle and lambs.

I live in Greeley, Colorado which is approximately 50 miles north of Denver in the center of one of the highly productive irrigated areas of the west. The major crops that are produced are sugar beets, potatoes, pinto beans, corn, small grains, and alfalfa hay. The sugar beet by-products from the sugar beet crop are excellent cattle and lamb fattening feeds. The new hybrid corn varieties do extremely well under our irrigated conditions. On our own farms we produce very close to 30 tons of corn silage per acre each year. Corn for grain is becoming a more important crop each year. Each year a larger portion of the alfalfa hay crop is either dehydrated or baled. I am explaining these details of what our crop production picture is because I believe our area probably feeds a larger percentage of dehydrated alfalfa to fattening livestock than most any other area in the country.

I cannot positively say why our area feeds more dehydrated alfalfa than other areas. I think the basic reason is the fact that we do have large production of dehydrated alfalfa immediately in the area which means that we do not have to add any freight to the cost of the product. It is an excellent source of protein, therefore, we feed it both for the value of the dehy itself with the Vitamin A content and the protein value. Two pounds of dehydrated
Alfalfa hay will have from 35 to 40% protein which is as much as a pound of soy bean or cottonseed meal will have. Another value for dehydrated alfalfa in fattening cattle rations is the almost complete elimination of urinary calculi.

I would estimate that of the cattle feeders who feed over 200 head of cattle, that at least 80 to 90% of these feeders feed dehydrated alfalfa. In our area we have many commercial cattle feeders who feed cattle constantly on a year around turnover basis. They are producing a standard uniform product, namely U. S. Choice beef. They sell cattle almost every week of the year and their cattle have a reputation on the market with the packers, and this reputation is important to each feed lot because it means a good price for each shipment of cattle. Almost without exception these reputation feeders use dehydrated alfalfa. I point this out particularly to prove the point that cattle fattened with dehy in the ration seem to produce quality beef.

Each year northern Colorado fattens and sends to market between 500,000 and 700,000 fat cattle. It has been estimated that about 30,000 tons of dehydrated alfalfa pellets are consumed by these cattle.

Practically all of this dehydrated alfalfa consumption is in the form of 1/4" pellets handled on a bulk basis. Several plants have inert gas storage for the bulk of their production. Other plants use regular tank or flat storage. In either case the pellets are handled entirely in bulk and delivered to the feeder in truck load lots.

Most dehydrators contract dehydrated pellets to the cattle feeders
at a base price plus an agreed storage price per month, and the cattle feeder has the privilege of hauling his feed a load at a time all through the feeding period as it is consumed. By handling the product in this manner, the vitamin content and other nutritional factors are held at maximum level for full feed efficiency.

The amount of dehydrated alfalfa fed per head per day varies with different feeders, so I think it best if I tell you how we feed it, and I believe that is a fair cross section of the average. If a bunch of cattle have come out of a dry drouthy country or are purchased in the spring after having been wintered on dry grass or poor quality hay, we feed these animals for the first 30 to 60 days between 3 and 4# of dehydrated alfalfa pellets daily. After this first period, we drop the dehydrated alfalfa to 2# per head daily until approximately the last 30 to 50 days that the animals are in the feed lots, then the feed is reduced to 1# of dehy per head per day. This time of year when we are purchasing yearling steers, for example, off the wheat pastures in Kansas, Oklahoma, and Texas, or good fleshy yearling cattle from any area, our standard ration would be 2# of dehy per head per day until we get to the finishing period when we would reduce the dehy to the 1# per head per day level. We feed quite a few calves during the year and, of course, there total feed consumption of all feeds is less. Therefore, we feed them approximately 1# of dehy per head per day when they are in the 400 to 550# weight bracket, then gradually increase it up to the 2# level for the middle part of the feeding period, then, of course, reduce it at the end of the fattening period to the 1# level the same as the older cattle.
In our lamb fattening operations, the lambs are fed the old fashioned way with panel feeding and grain troughs or dining room system as it is sometimes called. We have found that if we feed our lambs from .1 to .2 of a pound per head per day of dehy pellets, that our lambs produce better gains and finish with less tail end than if we use protein concentrates such as soy beans or cottonseed. Therefore, our standard rations on our lambs consist of grain, dried beet pulp, alfalfa hay, and the small amount of dehy pellets fed as a protein concentrate.

We have been feeding dehydrated alfalfa pellets to our cattle now for approximately seven or eight years. We have found that our net gains from one bunch of cattle to another bunch are more uniform when we feed dehydrated alfalfa. We find that if a bunch of cattle are inclined to have any tail end on them because of being undernourished or too early weaning or most any other difficulty, that by the time the animals are grown out, they are much better if dehy has been in the ration. Another advantage that we find is that we can use corn silage as a roughage and not feed any alfalfa hay as dry hay. The benefit that is received from alfalfa is entirely secured through the use of dehy. Leaving the ground dry alfalfa hay out of the ration entirely is not a regular thing to do, but in drouth years when alfalfa is scarce and the price is high, we have found the most economical way to produce beef is to eliminate it entirely. Actually we never use but relatively small amounts of dry ground alfalfa hay in any rations.

We have conducted many gain tests in our own feedlots using different levels of dehydrated alfalfa feeding. We have found an increase in gain per
head per day at each feeding level up to three pounds of dehy daily.

To finish my remarks before the question period, I would like to emphasize one basic point. Quality dehy is just as important in beef production as it is in broiler production. All of our purchases are based on a minimum guarantee of 17% protein and 100,000 units of Vitamin A. We refuse to buy the low quality product which so many mills try to sell to cattle feeders at a low price. Every cattle feeder I know who doesn't feed dehy has eliminated it because he was sold poor quality dehy which produced poor gains, so he naturally thinks the product is no good.

I honestly believe that cattle feeding in the western states will double in the next fifteen years.

If this prediction is true, where can dehydrators find a better more stable market than the cattle feeding industry?
ELEVENTH
STOCKMEN'S SHORT COURSE

CAMPUS
WASHINGTON STATE UNIVERSITY—PULLMAN, WASHINGTON

December 11, 12, 13, 14, 15, 1961

Sponsored by
THE WSU DEPARTMENT OF ANIMAL SCIENCE
in cooperation with other departments of the
INSTITUTE OF AGRICULTURAL SCIENCES
and
WASHINGTON STOCKMEN OF THE FOLLOWING ORGANIZATIONS

Washington Cattlemen's Association
Washington Cattle Feeder's Association
Northwest Hereford Breeder's Association
Inland Empire Aberdeen-Angus Association
Washington Aberdeen-Angus Association
Washington Livestock Auction Market Association
Inland Empire Shorthorn Breeder's Association
Washington Wool Grower's Association
Washington Swine Breeder's Association
North Pacific Hereford Breeder's Association

This is a Condensed Course of Special Interest to:
1. Farm and ranch owners
2. Managers, foremen and herdsmen
3. County extension agents
4. Vocational agriculture instructors and 4-H leaders
5. Young men and women who have not attended college
6. Former animal husbandry students, as a refresher course
7. Livestock judges who officiate at either local or national shows
8. Packers, livestock-market specialists, and meat retailers
9. The ladies
10. Wool producers and specialists
11. Formula feed industry personnel
12. Horsemen
13. Those interested in improved public relations for agriculture

ENROLLMENT:
Those desiring to enroll (AND EARLY ENROLLMENT IS URGED) are asked to fill out the enrollment form on the back page and mail it, together with the enrollment fee (plus room and board fees, if desired), to the following address:
M. E. Ensminger, Chairman
Department of Animal Science
Washington State University
Pullman, Washington

REGISTRATION:
Registration (scheduling of classes) will take place upon arrival, Sunday, December 10, 1:00 p.m. to 9:00 p.m., in Pioneer Hall. BE SURE TO REGISTER ON SUNDAY, for classes start promptly at 8:00 a.m., Monday. If unable to attend the full five days, please register when you arrive.

STOCKMEN'S SHORT COURSE alumni are urged to return for each event, for an entirely new and different program will be presented. Please come and bring others with you. Also, two new area programs are offered; Stud Manager's Section, and a short course in Agricultural Public Relations.
LECTURE PERIODS:
Each lecture period will be conducted as follows (unless otherwise listed):
1. Start promptly on the hour.
2. Continue for not to exceed 40 minutes, followed by 15 minutes for written question period in which the Moderator will collect written questions from the enrollees and refer them to the Guest Professor for answers.
3. Dismiss promptly five minutes before the end of the hour. The exceptions to this are noted in the program; thus please follow the times set in the Program Schedule. Then, too, certain courses are listed for 2-hour periods; which means that, usually, formal presentation will be made during the first part of the period and discussion and/or questions and answers will follow.

STOCKMEN'S AND HORSEMEN'S SMOKERS:
The Stockmen's Smoker will be held in the Ballroom, Compton Union Building, 7:00-9:00 p.m. on Monday and Wednesday evenings. The Smoker will provide an informal opportunity to ask questions that cannot be taken up during the day.

STOCKMEN'S HANDBOOK:
This valuable book contains up-to-the-minute information on a great array of subjects. The STOCKMEN'S HANDBOOK should be on every stockman's book shelf. Each year, great libraries from coast to coast—including the Library of Congress—secure copies of this book. It alone is well worth the entire enrollment fee. Extra copies of the STOCKMEN'S HANDBOOK can be purchased at $6 per copy. Also, we have a limited number of previous year's STOCKMEN'S HANDBOOKS which are available at $5.00 per copy.

STUD MANAGER'S HANDBOOK; PUBLIC RELATIONS HANDBOOK:
These very attractive Handbooks contain valuable information and are an asset to any one interested in these subjects. Horsemen may obtain copies of the STUD MANAGER'S HANDBOOK at $4.00 per copy. Also extra copies of the PUBLIC RELATIONS HANDBOOK will be available at $2.00 per copy.

HOUSING AND MEALS:
Group housing will be in Pioneer Hall on the WSU campus. If preferred, however, enrollees may make their own room reservations (at extra cost) in the local motels and hotels by writing directly to them (we suggest that you also include a room deposit when writing to hotels or motels for reservations). Rates for rooms, other than university housing are as follows:

PULLMAN
- Washington Hotel; $3.50 and up
- Manor Lodge Motel; $6.00 and up
- Hilltop Motel; $5.00 and up
- Hillside Motel; $5.20 and up

MOSCOW
- Wade's Motel; $5.00 and up
- Hillcrest Motel; $5.00 and up
- Moscow Hotel; $5.00 and up
- New Idaho Hotel; $5.00 and up

All meals, including the traditional Student-Stockman Banquet, will be served in the Grand Ballroom of the Compton Union Building on the campus.

CERTIFICATE:
A certificate, properly signed by the Dean of the College of Agriculture and the Chairman of the Department of Animal Science, will be presented to each enrollee completing three days or more of the Short Course.

1962 WSU EVENTS OF SPECIAL INTEREST TO STOCKMEN:
APRIL 27—Beef Cattle Day
MAY 25, 26—WSU Light Horse Judging School
May 25, 26, 27—WSU Open Horse Show

WSU ANIMAL SCIENCE ADVISORY COMMITTEE

Mr. Jay Agnew, President
Washington Cattlemen's Association
Route 2, Box 540
Centralia, Washington

Mr. Dave Foster, Representative
Washington Cattlemen's Association
507 Nanum
Ellensburg, Washington

Mr. Tom Bush, President
Inland Empire Shorthorn Breeders Association
Route 2, Pullman, Washington

Mr. Henry Fisher, Jr., Representative
Inland Empire Shorthorn Breeders Association
Box 32
Belmont, Washington

Mr. A. V. Harrel, President
Northwest Hereford Breeders Association
820 East Second Street
Ellensburg, Washington

Mr. Lindsey Staley, Representative
Northwest Hereford Breeders Association
Route 3
Pullman, Washington

Mr. Dale Bly, President
Inland Empire Aberdeen-Angus Association
Harrington, Washington

Mr. Stewart Bledsoe, Representative
Inland Empire Aberdeen-Angus Association
and Member, Central Advisory Committee
Route 3, Box 60-B
Ellensburg, Washington

Mr. Bernard Hambleton, President
Washington Aberdeen-Angus Association
10240 N. E. 113rd Street
Kirkland, Washington

Dr. Tom Pelley, President
Washington Horse Breeders Association
11619 E. Sprague
Opportunity, Washington

Mr. Jay Agnew, Representative
Washington Horse Breeders Association
Route 2, Box 540
Centralia, Washington

Mr. Parm Dickson, President
Washington Wool Growers Association
Okanogan, Washington

Mr. Robert Lyle, Representative
Washington Wool Growers Association
Route 2
Collfax, Washington

Mr. Orvil Eckelson, President
Washington Swine Breeders Association
Route 2
Pullman, Washington

Mr. Dan M. Hinkle, Representative
Washington Swine Breeders Association
Route 2
Pullman, Washington

Mr. Wallace Rothrock, President
Old Union Stockyards
E. 3100 North Avenue
Spokane, Washington

Mr. Joel Staadecker, Commissioner
Washington Horse Racing Commission
2820 Cascadia
Seattle 44, Washington

Mr. Paul Harrel, President
North Pacific Hereford Breeders Association
Harrel Hereford Ranch
Ellensburg, Washington

Mr. Jim Hes, Representative
North Pacific Hereford Breeders Association
Route 3
Ellensburg, Washington

Mr. John Eby, President
Washington Livestock Auction Market Association
P. O. Box 457
Auburn, Washington

Mr. J. H. Para, President
Washington Cattle Feeders Association
Box 1372
Olhallo, Washington

Mr. Ray Kayler, Representative
Washington Cattle Feeders Association
Route 2, Box 514
Moses Lake, Washington

Mr. Ed Heintzmann, Member
Central Advisory Committee
5470 Empire Way
Seattle 88, Washington
## Program Schedule  December 11-15, 1961

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<thead>
<tr>
<th>Sunday, December 10</th>
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<tbody>
<tr>
<td>Registration</td>
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<td>Smorgasbord</td>
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</table>

<table>
<thead>
<tr>
<th>Monday, December 11—MORNING PROGRAM</th>
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</thead>
<tbody>
<tr>
<td>Breakfast</td>
</tr>
<tr>
<td>1 Automation in the livestock industry</td>
</tr>
<tr>
<td>2 Grades and quality factors as they affect consumer acceptability</td>
</tr>
<tr>
<td>3 Boosting farm returns on capital investment</td>
</tr>
<tr>
<td>4 Beef cattle breeding—the genetic basis</td>
</tr>
<tr>
<td>5 Present status of certain feed additives for beef cattle</td>
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<tr>
<td>6 Modern farm buildings</td>
</tr>
<tr>
<td>7 What’s ahead for purebred livestock and registry associations</td>
</tr>
<tr>
<td>8 Seeding directly into sprayed sage and rabbit bush</td>
</tr>
<tr>
<td>9 The use of ultrasonic equipment in evaluating fleshing qualities in live animals</td>
</tr>
<tr>
<td>10 Results of the 1960-61 cattle grub demonstration with animal systemics</td>
</tr>
<tr>
<td>11 Economics of cattle feeding; where we have been and where we are going</td>
</tr>
<tr>
<td>12 Production testing of beef cattle</td>
</tr>
<tr>
<td>13 Instant steaks</td>
</tr>
<tr>
<td>14 Income taxes, the stockman’s return, the burden of proof</td>
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<tr>
<td>15 Minerals—their vital role in livestock income</td>
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<tr>
<td>16 Harvesting beef and trees from woodland ranges</td>
</tr>
<tr>
<td>17 Practical beef production</td>
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<tr>
<td>18 Where are we on dwarfism in cattle?</td>
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<tr>
<td>19 Before the veterinarian arrives</td>
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<tr>
<td>20 What’s ahead in livestock buildings and equipment</td>
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<tr>
<td>21 Management and treatment to control common cattle internal parasites</td>
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<tr>
<td>22 Use of antibiotics in cattle feeding</td>
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<td>23 Methods of evaluation in five slaughter cattle</td>
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<thead>
<tr>
<th>Time</th>
<th>Place</th>
<th>Instructor</th>
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<tbody>
<tr>
<td>8:00-8:55</td>
<td>CUB 212</td>
<td>Mr. R. R. Poynor</td>
</tr>
<tr>
<td>9:00-9:50</td>
<td>CUB 214 a&amp;b</td>
<td>Dr. C. C. O’Mary</td>
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<tr>
<td>10:05-10:55</td>
<td>CUB 212</td>
<td>Mr. F. A. Carney</td>
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<tr>
<td>11:00-11:55</td>
<td>CUB 212</td>
<td>Mr. J. Henson, DVM</td>
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<tr>
<td>11:00-11:55</td>
<td>CUB 212</td>
<td>Mr. F. W. Currier</td>
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<tr>
<td>11:00-11:55</td>
<td>CUB 212</td>
<td>Dr. W. M. Beeson</td>
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<td>11:00-11:55</td>
<td>CUB 212</td>
<td>Mr. W. D. Farr</td>
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<tr>
<td>11:00-11:55</td>
<td>CUB 212</td>
<td>Mr. W. S. Markham</td>
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<tr>
<td>11:00-11:55</td>
<td>CUB 212</td>
<td>Dr. R. I. Hostetler, DVM</td>
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<tr>
<td>11:00-11:55</td>
<td>CUB 212</td>
<td>Dr. A. E. Powell</td>
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<td>11:00-11:55</td>
<td>CUB 212</td>
<td>Dr. W. B. Clizer, DVM</td>
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<tr>
<td>11:00-11:55</td>
<td>CUB 212</td>
<td>Dr. W. M. Beeson</td>
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<tr>
<td>11:00-11:55</td>
<td>CUB 212</td>
<td>Mr. R. M. Durham</td>
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</tbody>
</table>

**AFTERNOON PROGRAM**

<table>
<thead>
<tr>
<th>Time</th>
<th>Place</th>
<th>Instructor</th>
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</thead>
<tbody>
<tr>
<td>1:00-1:55</td>
<td>CUB 214 a&amp;b</td>
<td>Mr. F. A. Carney</td>
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<tr>
<td>2:20-2:50</td>
<td>CUB 214 a&amp;b</td>
<td>Dr. W. M. Mattson</td>
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<tr>
<td>2:20-2:50</td>
<td>CUB 214 a&amp;b</td>
<td>Dr. R. V. Olson</td>
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<tr>
<td>2:00-2:50</td>
<td>CUB 212</td>
<td>Dr. H. E. Bechtel</td>
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<td>2:00-2:50</td>
<td>CUB 213</td>
<td>Dr. J. A. Bennett</td>
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<td>2:00-2:50</td>
<td>CUB 213</td>
<td>Mr. R. V. Olson</td>
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<td>2:00-2:50</td>
<td>CUB 213</td>
<td>Mr. R. I. Hostetler, DVM</td>
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<tr>
<td>2:00-2:50</td>
<td>CUB 213</td>
<td>Dr. A. E. Powell</td>
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<tr>
<td>2:00-2:50</td>
<td>CUB 213</td>
<td>Mr. P. W. Mattson</td>
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<tr>
<td>2:00-2:50</td>
<td>CUB 213</td>
<td>Mr. C. B. Waldron</td>
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<tr>
<td>3:05-4:00</td>
<td>CUB 213</td>
<td>Dr. D. R. Lingard, DVM</td>
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<tr>
<td>3:05-4:00</td>
<td>CUB 213</td>
<td>Dr. E. Weeks</td>
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<tr>
<td>3:05-4:00</td>
<td>CUB 213</td>
<td>Dr. F. C. Schattauer</td>
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<tr>
<td>3:05-4:00</td>
<td>CUB 213</td>
<td>Prof. G. Laisner</td>
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<tr>
<td>3:05-4:00</td>
<td>CUB 213</td>
<td>Mr. D. E. Majer</td>
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<tr>
<td>3:05-4:00</td>
<td>CUB 213</td>
<td>Mr. B. F. Roche, Jr.</td>
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<tr>
<td>3:05-4:00</td>
<td>CUB 213</td>
<td>Mr. C. H. Coddin, Jr.</td>
</tr>
<tr>
<td>3:05-4:00</td>
<td>CUB 213</td>
<td>Dr. J. Henson, DVM</td>
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</tbody>
</table>

**BEEF CATTLE OPEN HOUSE**

(Assemble in parking lot south of stadium)

Two separate tours; first from 3:05-4:00, second from 4:05-5:00. All cattlemen will take one tour; the half not on tour will elect from the following classes:

- 33 How to build a better mouse trap (herd health program)
- 34 How do livestock fit in Washington grain farms
- 35 Labor unions in agriculture
- 36 Art is for you
- 37 A ranch is a factory
- 38 Control of sage brush on Washington’s grazing lands
- 39 Carcass evaluation for breeders
- 40 Infectious bovine keratoconjunctivitis (Pink eye)

**Dinner**

**EVENING PROGRAM**

<table>
<thead>
<tr>
<th>Time</th>
<th>Place</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:00-9:00</td>
<td>CUB Ballroom</td>
<td>Staff &amp; Students</td>
</tr>
<tr>
<td>Lecture Number</td>
<td>Title of Lecture</td>
<td>Time</td>
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<td>----------------</td>
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<tr>
<td>41</td>
<td>Blow</td>
<td>6:30</td>
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<tr>
<td>42</td>
<td>The development of new systemic insecticides</td>
<td>8:00-8:55</td>
</tr>
<tr>
<td>43</td>
<td>New packages for hay</td>
<td>8:00-8:55</td>
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<tr>
<td>44</td>
<td>General range management</td>
<td>8:00-8:55</td>
</tr>
<tr>
<td>45</td>
<td>The importance of livestock transportation costs</td>
<td>8:00-8:55</td>
</tr>
<tr>
<td>46</td>
<td>Beef cattle breeding—optimum use of selection and crossbreeding</td>
<td>8:00-8:55</td>
</tr>
<tr>
<td>47</td>
<td>Factors affecting the Vitamin A requirements of cattle</td>
<td>8:00-8:55</td>
</tr>
<tr>
<td>48</td>
<td>Records of performance—what they say to the stockman</td>
<td>9:00-9:50</td>
</tr>
<tr>
<td>49</td>
<td>Nutrition and reproduction in beef cows</td>
<td>9:00-9:50</td>
</tr>
<tr>
<td>50</td>
<td>The epoch of frozen semen</td>
<td>9:00-9:50</td>
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<tr>
<td>51</td>
<td>Full development of rangelands of the Northwest</td>
<td>9:00-9:50</td>
</tr>
<tr>
<td>52</td>
<td>How we achieve the most flexibility in our range cattle operation</td>
<td>9:00-9:50</td>
</tr>
<tr>
<td>53</td>
<td>How we operate our commercial feedlot</td>
<td>9:00-9:50</td>
</tr>
<tr>
<td>54</td>
<td>Estimating yields of carcass cuts by measuring live beef animals</td>
<td>9:00-9:50</td>
</tr>
<tr>
<td>55</td>
<td>Coffee Break</td>
<td>9:00-9:50</td>
</tr>
<tr>
<td>56</td>
<td>Sealed slage storage and animal nutrition</td>
<td>10:05-10:55</td>
</tr>
<tr>
<td>57</td>
<td>Vitamin A in ruminant nutrition</td>
<td>10:05-10:55</td>
</tr>
<tr>
<td>58</td>
<td>Enterotoxemia (overeating disease) in sheep and cattle</td>
<td>10:05-10:55</td>
</tr>
<tr>
<td>59</td>
<td>A modern program for creep-feeding calves</td>
<td>10:05-10:55</td>
</tr>
<tr>
<td>60</td>
<td>The impact of artificial insemination on the beef industry</td>
<td>11:00-11:55</td>
</tr>
<tr>
<td>61</td>
<td>Search for beef type sires</td>
<td>11:00-11:55</td>
</tr>
<tr>
<td>62</td>
<td>Ruclene—a new animal systemic insecticide</td>
<td>11:00-11:55</td>
</tr>
<tr>
<td>63</td>
<td>Unassigned</td>
<td>11:00-11:55</td>
</tr>
<tr>
<td>64</td>
<td>Cow range management</td>
<td>11:00-11:55</td>
</tr>
<tr>
<td>65</td>
<td>A suggested approach to improvement of the marketing avenues for Washington livestock</td>
<td>11:00-2:50</td>
</tr>
<tr>
<td>66</td>
<td>Analysis of different methods of performance testing in cattle and swine lunch</td>
<td>12:00-1:00</td>
</tr>
</tbody>
</table>

**AFTERNOON PROGRAM**

<table>
<thead>
<tr>
<th>Lecture Number</th>
<th>Title of Lecture</th>
<th>Time</th>
<th>Place</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>67</td>
<td>Muscular dystrophy in calves and lambs</td>
<td>1:00</td>
<td>CUB 214 a&amp;b</td>
<td>Dr. I. A. Dyer</td>
</tr>
<tr>
<td>68</td>
<td>Swine lagoons</td>
<td>1:00</td>
<td>CUB 215</td>
<td>Mr. G. G. Dudley</td>
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<tr>
<td>69</td>
<td>Methods of establishing proper fees for grazing</td>
<td>1:00</td>
<td>CUB 207</td>
<td>Mr. L. H. Parsons</td>
</tr>
<tr>
<td>70</td>
<td>Seasonal variations in hog prices</td>
<td>1:00</td>
<td>CUB Outing Lounge</td>
<td>Mr. K. Hobson</td>
</tr>
<tr>
<td>71</td>
<td>Perspective look at the beef cattle business</td>
<td>1:00</td>
<td>CUB 212</td>
<td>Dr. H. E. Bechtel</td>
</tr>
<tr>
<td>72</td>
<td>Management and records for effective beef performance and progeny testing</td>
<td>1:00</td>
<td>CUB Jr. Ballroom</td>
<td>Mr. G. Butts</td>
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<tr>
<td>73</td>
<td>Trade area development from the standpoint of livestock markets</td>
<td>2:00</td>
<td>CUB 212</td>
<td>Mr. C. T. Sanders</td>
</tr>
<tr>
<td>74</td>
<td>How to use your veterinarian economically</td>
<td>2:00</td>
<td>CUB 214 a&amp;b</td>
<td>Dr. R. I. Hostetter, DVM</td>
</tr>
<tr>
<td>75</td>
<td>Animal agriculture and farmstead mechanization</td>
<td>2:00</td>
<td>CUB 207</td>
<td>Mr. J. R. Reedal</td>
</tr>
<tr>
<td>76</td>
<td>Range improvement of the flagtail allotment through grazing management</td>
<td>2:00</td>
<td>CUB 215</td>
<td>Mr. C. B. Waldron</td>
</tr>
<tr>
<td>77</td>
<td>Issues and problems in grading hogs</td>
<td>2:00</td>
<td>CUB 216</td>
<td>Dr. G. Engelman</td>
</tr>
<tr>
<td>78</td>
<td>How I operate my cattle enterprise</td>
<td>2:00</td>
<td>CUB Outing Lounge</td>
<td>Mr. R. Smith</td>
</tr>
<tr>
<td>79</td>
<td>Coffee Break</td>
<td>2:50</td>
<td>CUB Ballroom</td>
<td>Mr. M. A. Gee</td>
</tr>
<tr>
<td>80</td>
<td>The protection of trout stream environment</td>
<td>3:05</td>
<td>CUB 207</td>
<td>Mr. L. V. Olsen</td>
</tr>
<tr>
<td>81</td>
<td>Sugar beet by-products in livestock rations</td>
<td>3:05</td>
<td>CUB 214 a&amp;b</td>
<td>Mr. C. H. Knight</td>
</tr>
<tr>
<td>82</td>
<td>Management intensities, the key to efficient use of mountainous range land</td>
<td>3:05</td>
<td>CUB Outing Lounge</td>
<td>Mr. W. D. Hurst</td>
</tr>
<tr>
<td>83</td>
<td>Process for beef tenderization using food enzymes</td>
<td>3:05</td>
<td>CUB Jr. Ballroom</td>
<td>Dr. H. E. Robinson</td>
</tr>
<tr>
<td>84</td>
<td>Where are we on artificial insemination in swine?</td>
<td>3:00</td>
<td>CUB 116</td>
<td>Dr. H. A. Herman</td>
</tr>
<tr>
<td>85</td>
<td>semen quality and bull fertility</td>
<td>3:05</td>
<td>CUB 213</td>
<td>Dr. J. N. Willbank</td>
</tr>
<tr>
<td>86</td>
<td>HILLTOP STABLES OPEN HOUSE (assembly in parking lot south of stadium)</td>
<td>3:45</td>
<td>Hilltop Stables</td>
<td>Mr. mathews</td>
</tr>
<tr>
<td>87</td>
<td>Tilt-up concrete farm buildings</td>
<td>4:00</td>
<td>CUB 214 a&amp;b</td>
<td>Dr. H. B. McGrath, DVM</td>
</tr>
<tr>
<td>88</td>
<td>Effectiveness of Co-Ral and other systemic insecticides on livestock</td>
<td>4:00</td>
<td>CUB 213</td>
<td>Dr. C. E. Weir</td>
</tr>
<tr>
<td>89</td>
<td>Farm pork production costs</td>
<td>4:00</td>
<td>CUB 212</td>
<td>Dr. H. E. Bechtel</td>
</tr>
<tr>
<td>90</td>
<td>Red Brangus cattle</td>
<td>4:00</td>
<td>CUB 207</td>
<td>Mr. Mike Levi</td>
</tr>
<tr>
<td>91</td>
<td>Producing IPR registered cattle</td>
<td>4:00</td>
<td>CUB Jr. Ballroom</td>
<td>Mr. E. Becker</td>
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**EVENING PROGRAM**

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<th>Lecture Number</th>
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<tbody>
<tr>
<td>92</td>
<td>Student-Stockman Banquet</td>
<td>6:30</td>
<td>CUB Ballroom</td>
<td>Mr. Dan Thornton; tapping of Hall of Fame recipients; and &quot;Knighting of Sir Loin&quot;</td>
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### Wednesday, December 13—MORNING PROGRAM

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<tbody>
<tr>
<td>92</td>
<td>Coordination of uses—the basis for national forest wildlife management</td>
<td>8:00-8:55</td>
<td>CUB 214 a&amp;b</td>
<td>Mr. W. R. Frandsen</td>
</tr>
<tr>
<td>93</td>
<td>Sheep range management</td>
<td>8:00-8:55</td>
<td>CUB 215</td>
<td>Mr. W. A. Crocker</td>
</tr>
<tr>
<td>94</td>
<td>Pork production as a farm business</td>
<td>8:00-8:55</td>
<td>CUB 207</td>
<td>Dr. H. E. Bechtel</td>
</tr>
<tr>
<td>95</td>
<td>Causes of calf crop loss in beef cattle</td>
<td>8:00-8:55</td>
<td>CUB 212</td>
<td>Dr. J. N. Wiltbank</td>
</tr>
<tr>
<td>96</td>
<td>Beef cattle breeding—breeding systems—past, present and future</td>
<td>8:00-8:55</td>
<td>CUB 213</td>
<td>Dr. R. T. Berg</td>
</tr>
<tr>
<td>97</td>
<td>Nutritional factors affecting beef quality</td>
<td>8:00-8:55</td>
<td>CUB Jr. Ballroom</td>
<td>Dr. W. M. Beeson</td>
</tr>
<tr>
<td>98</td>
<td>How to feed range forage plants, enable them to make more efficient use of soil</td>
<td>9:00-9:50</td>
<td>CUB 214 a&amp;b</td>
<td>Mr. A. R. Freund</td>
</tr>
<tr>
<td></td>
<td>and nutrients and produce more forage</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>99</td>
<td>Pelleted rations for fattening lambs</td>
<td>9:00-9:50</td>
<td>CUB 207</td>
<td>Dr. W. M. Beeson</td>
</tr>
<tr>
<td>100</td>
<td>Swine management</td>
<td>9:00-9:50</td>
<td>CUB 215</td>
<td>Dr. V. B. Beat, DVM</td>
</tr>
<tr>
<td>101</td>
<td>The water requirements of animals</td>
<td>9:00-9:50</td>
<td>CUB 213</td>
<td>Dr. A. J. Wood</td>
</tr>
<tr>
<td>102</td>
<td>Why not describe animals as accurately as “Miss America” is described?</td>
<td>9:00-9:50</td>
<td>CUB Jr. Ballroom</td>
<td>Dr. W. W. Green</td>
</tr>
<tr>
<td>103</td>
<td>Breeding of beef cattle through artificial insemination</td>
<td>9:00-9:50</td>
<td>CUB 214 a&amp;b</td>
<td>Mr. A. R. Freund</td>
</tr>
<tr>
<td>104</td>
<td>What is public relations?</td>
<td>10:05-10:40</td>
<td>CUB Ballroom</td>
<td>Mr. R. A. Sandberg</td>
</tr>
<tr>
<td>105</td>
<td>Creating a better image for agriculture; accentuating our agreements</td>
<td>10:40-11:15</td>
<td>CUB Ballroom</td>
<td>Dr. G. B. Wood</td>
</tr>
<tr>
<td>106</td>
<td>Chemicals—vital to our food supply</td>
<td>11:20-11:55</td>
<td>CUB 212</td>
<td>Dr. R. W. Colby</td>
</tr>
<tr>
<td>107</td>
<td>How to use range sites and condition classes to develop and apply range</td>
<td>11:20-11:55</td>
<td>CUB 214 a&amp;b</td>
<td>Mr. W. R. Frandsen</td>
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<tr>
<td></td>
<td>conservation plans</td>
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<tr>
<td>108</td>
<td>Supplemental feeding of range sheep</td>
<td>11:20-11:55</td>
<td>CUB 213</td>
<td>Dr. J. A. Bennett</td>
</tr>
<tr>
<td>109</td>
<td>The meat-type steer—its identity and use</td>
<td>11:20-11:55</td>
<td>CUB 116</td>
<td>Dr. L. E. Orme</td>
</tr>
<tr>
<td>110</td>
<td>Some results from production records</td>
<td>11:20-11:55</td>
<td>CUB Jr. Ballroom</td>
<td>Mr. J. E. Rouse</td>
</tr>
<tr>
<td>111</td>
<td>The trace-mineral requirements, tolerances and inter-relationships in swine</td>
<td>11:20-11:55</td>
<td>CUB 207</td>
<td>Dr. W. M. Beeson</td>
</tr>
<tr>
<td>112</td>
<td>Relations of present grading practices to yields of red meat in beef steers</td>
<td>11:20-2:50</td>
<td>Meat Lab.</td>
<td>Dr. R. M. Durham</td>
</tr>
<tr>
<td></td>
<td>Lunch</td>
<td>12:00-1:00</td>
<td>CUB Ballroom</td>
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### AFTERNOON PROGRAM

<table>
<thead>
<tr>
<th>Lecture Number</th>
<th>Title of Lecture</th>
<th>Time</th>
<th>Place</th>
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</thead>
<tbody>
<tr>
<td>113</td>
<td>WSU Animal Science Advisory Committee</td>
<td>1:00-2:50</td>
<td>CUB 207</td>
<td>Dr. H. S. Wilgus</td>
</tr>
<tr>
<td></td>
<td>Meeting (Closed meeting)</td>
<td></td>
<td></td>
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<tr>
<td>114</td>
<td>FDA regulations and the feeding industry</td>
<td>1:00-2:50</td>
<td>CUB 212</td>
<td>Dr. H. E. Furgeson, DVM</td>
</tr>
<tr>
<td>115</td>
<td>Some practical husbandry tips for sheepmen</td>
<td>1:00-1:55</td>
<td>CUB 116</td>
<td>Dr. J. M. Bell</td>
</tr>
<tr>
<td>116</td>
<td>Selling hogs on a rail-graded basis</td>
<td>1:00-1:55</td>
<td>CUB 214 a&amp;b</td>
<td>Mr. R. W. Hill</td>
</tr>
<tr>
<td>117</td>
<td>Beef for tomorrow by creep feeding</td>
<td>1:00-1:55</td>
<td>CUB 213</td>
<td>Dr. P. O. Stratton</td>
</tr>
<tr>
<td>118</td>
<td>Age as a factor in the economy of livestock feeding</td>
<td>1:00-1:55</td>
<td>CUB Jr. Ballroom</td>
<td>Dr. A. J. Wood</td>
</tr>
<tr>
<td>119</td>
<td>Dollars and sense in marketing your feeder cattle</td>
<td>2:00-2:50</td>
<td>CUB 213</td>
<td>Mr. R. Baker</td>
</tr>
<tr>
<td>120</td>
<td>Records of performance—their use in livestock production</td>
<td>2:00-2:50</td>
<td>CUB 215</td>
<td>Dr. R. L. Blackwell</td>
</tr>
<tr>
<td>121</td>
<td>Lysine as an additive in swine rations</td>
<td>2:00-2:50</td>
<td>CUB 214 a&amp;b</td>
<td>Dr. L. Michaud, DVM</td>
</tr>
<tr>
<td>122</td>
<td>Immunizations in the cow-calf herd</td>
<td>2:00-2:50</td>
<td>CUB 116</td>
<td>Dr. C. Shumaker, DVM</td>
</tr>
<tr>
<td>123</td>
<td>Some aspects in supplemental feeding range cattle</td>
<td>2:00-2:50</td>
<td>CUB Jr. Ballroom</td>
<td>Dr. J. A. Bennett</td>
</tr>
<tr>
<td>124</td>
<td>Coffee Break</td>
<td>2:50-3:05</td>
<td>CUB Ballroom</td>
<td>Mr. R. C. Liebenow</td>
</tr>
<tr>
<td>125</td>
<td>What’s right about American agriculture today?</td>
<td>3:05-3:40</td>
<td>CUB Ballroom</td>
<td>Mr. L. Liggett</td>
</tr>
</tbody>
</table>

### EVENING PROGRAM

<table>
<thead>
<tr>
<th>Lecture Number</th>
<th>Title of Lecture</th>
<th>Time</th>
<th>Place</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>126</td>
<td>What can artificial insemination offer the beef breeders</td>
<td>4:20-5:00</td>
<td>CUB 213</td>
<td>Dr. H. A. Herman</td>
</tr>
<tr>
<td>127</td>
<td>Types of silos</td>
<td>4:20-5:00</td>
<td>CUB 212</td>
<td>Dr. T. A. Meyer</td>
</tr>
<tr>
<td>128</td>
<td>Factors affecting the suitability of mountainous lands for domestic livestock grazing</td>
<td>4:20-5:00</td>
<td>CUB 214 a&amp;b</td>
<td>Mr. W. D. Hurst</td>
</tr>
<tr>
<td>129</td>
<td>Livestock and meat grading—the economic “whys and wherefores”</td>
<td>4:20-5:00</td>
<td>CUB Jr. Ballroom</td>
<td>Dr. G. Engelman</td>
</tr>
<tr>
<td>130</td>
<td>Effects of different rations on rate of gain and carcass composition</td>
<td>4:20-5:00</td>
<td>CUB 116</td>
<td>Dr. G. Walker</td>
</tr>
<tr>
<td>131</td>
<td>Unassigned</td>
<td>5:45</td>
<td>CUB Ballroom</td>
<td></td>
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</tbody>
</table>

<p>|               | Stockmen’s Smoker                                                                 | 7:00-9:00| CUB Ballroom    | Staff &amp; Students       |</p>
<table>
<thead>
<tr>
<th>Lecture Number</th>
<th>Title of Lecture</th>
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<th>Place</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>132</td>
<td>Elements of a ranch conservation plan</td>
<td>6:30</td>
<td>CUB Ballroom</td>
<td>Mr. C. Dillon</td>
</tr>
<tr>
<td>133</td>
<td>Electronic feed formulation—how to figure least-cost rations with a digital computer</td>
<td>8:00-8:55</td>
<td>CUB 213</td>
<td>Dr. O. W. Rechard</td>
</tr>
<tr>
<td>134</td>
<td>Issues and problems in beef grading</td>
<td>8:00-8:55</td>
<td>CUB 212</td>
<td>Dr. G. Engelman</td>
</tr>
<tr>
<td>135</td>
<td>Genetics of sheep</td>
<td>8:00-8:55</td>
<td>CUB 207</td>
<td>Dr. R. M. Durham</td>
</tr>
<tr>
<td>136</td>
<td>The University of Alberta beef breeding program</td>
<td>8:00-9:50</td>
<td>CUB 116</td>
<td>Dr. R. E. Larson, DVM</td>
</tr>
<tr>
<td>137</td>
<td>Production of specific disease-free swine</td>
<td>9:00-9:50</td>
<td>CUB 214 a&amp;b</td>
<td>Dr. T. H. Blosser</td>
</tr>
<tr>
<td>138</td>
<td>Some factors affecting the palatability of silage for livestock</td>
<td>9:00-9:50</td>
<td>CUB Jr. Ballroom</td>
<td>Mr. C. F. Neumann</td>
</tr>
<tr>
<td>139</td>
<td>What's ahead in consumer preferences for meat</td>
<td>9:00-9:50</td>
<td>CUB 207</td>
<td>Dr. M. W. Galgan</td>
</tr>
<tr>
<td>140</td>
<td>Early weaning of lambs</td>
<td>9:00-9:50</td>
<td>CUB 212</td>
<td>Mr. P. Zimmer</td>
</tr>
<tr>
<td>141</td>
<td>Antibiotic supplementation for over-wintering and grazing beef cattle</td>
<td>9:00-9:50</td>
<td>CUB 213</td>
<td>Dr. W. W. Green</td>
</tr>
<tr>
<td>142</td>
<td>Pregnancy testing for increased production and efficiency</td>
<td>9:00-9:50</td>
<td>CUB Ballroom</td>
<td>Dr. J. N. Wiltbank</td>
</tr>
<tr>
<td>143</td>
<td>Practices to improve cattle distribution on mountain summer range</td>
<td>9:50-10:05</td>
<td>CUB Ballroom</td>
<td>Mr. J. M. Skovlin</td>
</tr>
<tr>
<td>144</td>
<td>Effect of terramycin on different classes and ages of swine</td>
<td>10:05-10:55</td>
<td>CUB 213</td>
<td>Dr. W. P. Crawford</td>
</tr>
<tr>
<td>145</td>
<td>Calf losses at or near birth</td>
<td>10:05-10:55</td>
<td>CUB Jr. Ballroom</td>
<td>Dr. J. M. Wiltbank</td>
</tr>
<tr>
<td>146</td>
<td>Are you producing the preferred type of feeder cattle?</td>
<td>10:05-10:55</td>
<td>CUB 212</td>
<td>Mr. M. Green</td>
</tr>
<tr>
<td>147</td>
<td>Needed, an improved lamb carcass</td>
<td>10:05-10:55</td>
<td>CUB 207</td>
<td>Dr. F. O. Stratton</td>
</tr>
<tr>
<td>148</td>
<td>Three years experience with artificial breeding</td>
<td>10:05-10:55</td>
<td>CUB 214 a&amp;b</td>
<td>Dr. J. E. Rousset</td>
</tr>
<tr>
<td>149</td>
<td>Results of ranch conservation planning</td>
<td>11:00-11:55</td>
<td>CUB 214 a&amp;b</td>
<td>Dr. C. Dillon</td>
</tr>
<tr>
<td>150</td>
<td>Bovine infertility—what is it?</td>
<td>11:00-11:55</td>
<td>CUB 212</td>
<td>Dr. D. R. Lingard, DVM</td>
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<tr>
<td>151</td>
<td>Diseases of baby lambs</td>
<td>11:00-11:55</td>
<td>CUB 207</td>
<td>Dr. H. E. Furgeson, DVM</td>
</tr>
<tr>
<td>152</td>
<td>Relationships of growth and development to carcass quality</td>
<td>11:00-11:55</td>
<td>CUB Jr. Ballroom</td>
<td>Dr. A. J. Wood</td>
</tr>
<tr>
<td>153</td>
<td>Possibilities of new criteria in marketing standards of slaughter beef animals</td>
<td>11:00-12:00</td>
<td>CUB 213</td>
<td>Dr. R. M. Durham</td>
</tr>
<tr>
<td></td>
<td>Lunch</td>
<td>12:00-1:00</td>
<td>CUB Ballroom</td>
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**AFTEERNON PROGRAM**

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<th>Instructor</th>
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</thead>
<tbody>
<tr>
<td>154</td>
<td>What's ahead for livestock shows</td>
<td>1:00-1:55</td>
<td>CUB 215</td>
<td>Dr. C. C. O'Mary</td>
</tr>
<tr>
<td>155</td>
<td>Superovulation, ova transfer and sex control</td>
<td>1:00-1:55</td>
<td>CUB 116</td>
<td>Dr. E. S. Hafez</td>
</tr>
<tr>
<td>156</td>
<td>Practical nutrition</td>
<td>1:00-1:55</td>
<td>CUB 214 a&amp;b</td>
<td>Dr. V. B. Beat, DVM</td>
</tr>
<tr>
<td>157</td>
<td>The challenge; bargaining power for farmers</td>
<td>1:00-1:55</td>
<td>CUB Jr. Ballroom</td>
<td>Dr. G. B. Wood</td>
</tr>
<tr>
<td>158</td>
<td>Making quality silage</td>
<td>1:00-1:55</td>
<td>CUB 212</td>
<td>Dr. T. A. Meyer</td>
</tr>
<tr>
<td>159</td>
<td>Fencing for range sheep in Washington</td>
<td>1:00-1:55</td>
<td>CUB 207</td>
<td>Dr. W. F. McGregor</td>
</tr>
<tr>
<td>160</td>
<td>The use of tranquilizers in large animals</td>
<td>2:00-2:50</td>
<td>CUB 116</td>
<td>Dr. R. F. Baker, DVM</td>
</tr>
<tr>
<td>161</td>
<td>Ruminant nutrition</td>
<td>2:00-2:50</td>
<td>CUB Jr. Ballroom</td>
<td>Dr. H. E. Bechtel</td>
</tr>
<tr>
<td>162</td>
<td>Evaluating silages</td>
<td>2:00-2:50</td>
<td>CUB 212</td>
<td>Dr. T. A. Meyer</td>
</tr>
<tr>
<td>163</td>
<td>Seasonal variation in cattle prices</td>
<td>2:00-2:50</td>
<td>CUB 214 a&amp;b</td>
<td>Mr. K. Hobson</td>
</tr>
<tr>
<td>164</td>
<td>Diseases of mature sheep</td>
<td>2:00-2:50</td>
<td>CUB 207</td>
<td>Dr. H. E. Furgeson, DVM</td>
</tr>
<tr>
<td>165</td>
<td>Practical use of NF-180 and other nitrofurans in swine</td>
<td>2:00-2:50</td>
<td>CUB 215</td>
<td>Dr. J. E. Briggs</td>
</tr>
<tr>
<td></td>
<td>Coffee Break</td>
<td>2:50-3:05</td>
<td>CUB Ballroom</td>
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<tr>
<td>166</td>
<td>The positive approach in agricultural public relations</td>
<td>3:05-4:15</td>
<td>CUB Ballroom</td>
<td>Panel:</td>
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<tr>
<td></td>
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<td>Mr. R. A. Sandberg, Mr. L. Liggert, Mr. R. Poulson, Mr. R. R. Kull</td>
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<td>Dr. G. B. Wood, Mr. L. Webster, Mr. G. Lorang, Mr. G. Bowman</td>
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<td>Mr. R. L. Kashe, Mr. J. Dwyer, Mr. J. Ulrich, Dr. R. P. Fausti</td>
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<td></td>
<td>Mr. R. C. Liebenow, Mr. L. Nelson, Dr. R. W. Colby, Mr. C. A. Bond</td>
</tr>
</tbody>
</table>

**SWINE CENTER OPEN HOUSE**

(assembly in parking lot south of stadium)

<table>
<thead>
<tr>
<th>Lecture Number</th>
<th>Title of Lecture</th>
<th>Time</th>
<th>Place</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>167</td>
<td>The need for objective standards for cattle</td>
<td>4:20-5:00</td>
<td>Swine Center</td>
<td>Mr. F. R. Carpenter</td>
</tr>
<tr>
<td>168</td>
<td>Control of common cattle feedlot diseases</td>
<td>4:20-5:00</td>
<td>CUB Jr. Ballroom</td>
<td>Mr. J. W. Bailey, DVM</td>
</tr>
<tr>
<td>169</td>
<td>Newer developments in ruminant nutrition</td>
<td>4:20-5:00</td>
<td>CUB 214 a&amp;b</td>
<td>Dr. R. A. Rasmussen</td>
</tr>
<tr>
<td>170</td>
<td>Raising calves on milk replacer</td>
<td>4:20-5:00</td>
<td>CUB 207</td>
<td>Dr. J. M. Bell</td>
</tr>
<tr>
<td>171</td>
<td>Nutrition of brood sows</td>
<td>4:20-5:00</td>
<td>CUB 216</td>
<td>Dr. J. E. Briggs</td>
</tr>
<tr>
<td>172</td>
<td>Thiabendazole, a new broad spectrum anthelmintic</td>
<td>4:20-5:00</td>
<td>CUB 207</td>
<td>Dr. L. Michaud, DVM</td>
</tr>
<tr>
<td></td>
<td>Dinner</td>
<td>5:45</td>
<td>CUB Ballroom</td>
<td></td>
</tr>
</tbody>
</table>

**EVENING PROGRAM**

**LITTLE INTERNATIONAL**

<table>
<thead>
<tr>
<th>Time</th>
<th>Place</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:00-9:30</td>
<td>Livestock Arena</td>
<td></td>
</tr>
<tr>
<td>Lecture Number</td>
<td>Title of Lecture</td>
<td>Time</td>
</tr>
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</tr>
<tr>
<td>173</td>
<td>A study of hepatic fibrinogenesis in the pig</td>
<td>8:00- 8:55 CUB 215</td>
</tr>
<tr>
<td>174</td>
<td>New look in wool products</td>
<td>8:00- 8:55 CUB 207</td>
</tr>
<tr>
<td>175</td>
<td>Effect of (1) terramycin and (2) stilbestrol implants on cattle</td>
<td>8:00- 8:55 CUB 214 a&amp;b Ballroom</td>
</tr>
<tr>
<td>176</td>
<td>Synchronization of estrus in beef cattle and sheep</td>
<td>8:00- 8:55 CUB Jr. Ballroom</td>
</tr>
<tr>
<td>177</td>
<td>Individual feeding of beef cattle—a real help for commercial and purebred producers</td>
<td>8:00- 8:55 CUB 212 Ballroom</td>
</tr>
<tr>
<td>178</td>
<td>Modern methods of processing and retailing meats</td>
<td>9:00- 9:50 CUB 214 a&amp;b</td>
</tr>
<tr>
<td>179</td>
<td>Grazing management of bunchgrass forage</td>
<td>9:00- 9:50 CUB 207</td>
</tr>
<tr>
<td>180</td>
<td>Nutrition of swine</td>
<td>9:00- 9:50 CUB 207</td>
</tr>
<tr>
<td>181</td>
<td>Let's have a 95 to 100 per cent calf crop</td>
<td>9:00- 9:50 CUB 212 Ballroom</td>
</tr>
<tr>
<td>182</td>
<td>Man-made saliva</td>
<td>9:00- 9:50 CUB 213 Lunch</td>
</tr>
<tr>
<td>183</td>
<td>Pricing bulls relative to gain and conformation</td>
<td>9:50-10:05 CUB Ballroom</td>
</tr>
<tr>
<td>184</td>
<td>Atomic energy and agriculture, today and tomorrow</td>
<td>10:05-10:55 CUB Jr. Ballroom</td>
</tr>
<tr>
<td>185</td>
<td>Feeding hogs for leaner carcasses</td>
<td>10:05-10:55 CUB 207</td>
</tr>
<tr>
<td>186</td>
<td>Selection for beef on carcass merit</td>
<td>10:05-10:55 CUB 213</td>
</tr>
<tr>
<td>187</td>
<td>Applied artificial insemination in commercial beef herds</td>
<td>10:05-10:55 CUB 212</td>
</tr>
<tr>
<td>188</td>
<td>Feeding early-weaned pigs</td>
<td>11:00-11:55 CUB 216</td>
</tr>
<tr>
<td>189</td>
<td>Nutrition of beef cattle</td>
<td>11:00-11:55 CUB 207</td>
</tr>
<tr>
<td>190</td>
<td>A realistic goal for beef cattle breeders</td>
<td>11:00-11:55 CUB 207</td>
</tr>
<tr>
<td>191</td>
<td>Why cows do not settle</td>
<td>11:00-11:55 CUB 213 Ballroom</td>
</tr>
<tr>
<td>192</td>
<td>Pasture, roughage and concentrates—energy considerations</td>
<td>11:00-11:55 CUB 214 a&amp;b</td>
</tr>
<tr>
<td></td>
<td>Lunch</td>
<td>12:00- 1:00 CUB Ballroom</td>
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</tbody>
</table>

**Stud Manager's Section—Stockmen's Short Course**

**DECEMBER 11-15, 1961**

**Sunday, December 10**
- Registration: 1:00- 9:00 Pioneer Hall, WSU Campus
- Smorgasbord: 12:00- 6:00 CUB Dining Room

**Monday, December 11—MORNING PROGRAM**
- Breakfast: 6:30 CUB Ballroom
- 1 A program of horse health, disease prevention, and parasite control 8:00- 8:55 CUB 216 | Dr. J. A. Harsch, DVM
- 2 Skeletal structure of the lower leg of the horse 9:00- 9:50 CUB 216 | Dr. J. W. Metcalf, DVM
- Coffee Break: 9:50-10:05 CUB Ballroom
- 3 Laminitis and navicular disease 10:05-10:55 CUB 216 | Dr. J. W. Metcalf, DVM
- 4 Horse parasites and their control 11:00-11:55 CUB 216 | Dr. J. S. Dunlap, DVM
- Lunch: 12:00- 1:00 CUB Ballroom

**AFTERNOON PROGRAM**
- Equine rhino-pneumonitis (virus abortion), and arteritis 1:00- 1:55 CUB 216 | Dr. W. R. McGee, DVM
- Feeding pelleted rations to horses 2:00- 2:50 CUB 216 | Dr. W. P. Lehrer, Jr.
- Proper foot care of weanlings and yearlings 2:00- 5:00 Livestock Arena | Mr. R. Hoover
- Coffee Break: 2:00- 2:50 CUB Ballroom and Arena
- Dinner: 2:50- 3:05 CUB Ballroom

**EVENING PROGRAM**
- Horsemen's Smoker: 7:00- 9:00 CUB Outing Lounge | Staff & Students

**Tuesday, December 12—MORNING PROGRAM**
- Breakfast: 6:30 CUB Ballroom
- Semen evaluation in stallions 8:00- 8:55 CUB 216 | Dr. W. R. McGee, DVM
- Farm records 9:00- 9:30 CUB 216 | Dr. J. K. Robbins, VMD
- Coffee Break: 9:50-10:05 CUB Ballroom
- 10 How and why horses inherit the things they do 10:05-10:55 CUB 216 | Dr. W. W. Green
- 11 Selection of brood mares 11:00-11:55 CUB 216 | Dr. J. K. Robbins, VMD
- Lunch: 12:00- 1:00 CUB Ballroom

**AFTERNOON PROGRAM**
- Fundamentals of horseshoeing 1:00- 3:45 Livestock Arena | Mr. R. Hoover
- WSU HILLTOP STABLES OPEN HOUSE | Coffee Break: 2:50- 3:05 Livestock Arena
- (assemble in parking lot south of stadium)

**EVENING PROGRAM**
- Student-Stockman Banquet 3:45- 5:00 Hilltop Stables |
- Along the Thornton Trail; From 4-H Boy to Governor 6:30- 9:30 CUB Ballroom | Mr. Dan Thornton;
tapping of Hall of Fame recipients; and
"Knighting of Sir Loin"
### Wednesday, December 13 — MORNING PROGRAM

<table>
<thead>
<tr>
<th>Lecture Number</th>
<th>Title of Lecture</th>
<th>Time</th>
<th>Place</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>13</td>
<td>Estrus and ovulation in the broodmare</td>
<td>8:00-8:55</td>
<td>CUB 216</td>
<td>Dr. W. R. McGee, DVM</td>
</tr>
<tr>
<td>14</td>
<td>Importance of the Thoroughbred</td>
<td>9:00-9:50</td>
<td>CUB 216</td>
<td>Mr. B. G. Stark</td>
</tr>
<tr>
<td>15</td>
<td>Medical aspects of broodmare management</td>
<td>10:05-10:55</td>
<td>CUB 216</td>
<td>Dr. J. A. Harsch, DVM</td>
</tr>
<tr>
<td>16</td>
<td>Stallion management</td>
<td>11:00-11:55</td>
<td>CUB 216</td>
<td>Dr. J. K. Robbins, VMD</td>
</tr>
<tr>
<td></td>
<td>Breakfast</td>
<td>6:30</td>
<td>CUB Ballroom</td>
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**AFTERNOON PROGRAM**

<table>
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<tr>
<th>Lecture Number</th>
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<th>Time</th>
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<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>17</td>
<td>Some common diseases of the horse</td>
<td>1:00-1:55</td>
<td>CUB 216</td>
<td>Dr. M. D. Nicholls, DVM</td>
</tr>
<tr>
<td>18</td>
<td>Corrective shoeing</td>
<td>2:00-5:00</td>
<td>Livestock Arena</td>
<td>Mr. R. Hoover</td>
</tr>
<tr>
<td></td>
<td>Coffee Break</td>
<td>2:50-3:05</td>
<td>Livestock Arena</td>
<td></td>
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<td></td>
<td>Dinner</td>
<td>5:45</td>
<td>CUB Ballroom</td>
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**EVENING PROGRAM**

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<thead>
<tr>
<th>Lecture Number</th>
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<th>Place</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Horsemen's Smoker</td>
<td>7:00-9:00</td>
<td>CUB Outing Lounge</td>
<td>Staff &amp; Students</td>
</tr>
</tbody>
</table>

### Thursday, December 14 — MORNING PROGRAM

<table>
<thead>
<tr>
<th>Lecture Number</th>
<th>Title of Lecture</th>
<th>Time</th>
<th>Place</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>19</td>
<td>Care of the handicapped foal</td>
<td>6:30</td>
<td>CUB Ballroom</td>
<td>Dr. W. R. McGee, DVM</td>
</tr>
<tr>
<td>20</td>
<td>Recent developments in horse nutrition</td>
<td>8:00-8:55</td>
<td>CUB 216</td>
<td>Dr. A. J. Wood</td>
</tr>
<tr>
<td>21</td>
<td>Diseases of new-born foals</td>
<td>9:00-9:50</td>
<td>CUB 216</td>
<td>Mr. B. G. Stark</td>
</tr>
<tr>
<td>22</td>
<td>Nutrition of horses</td>
<td>10:05-10:55</td>
<td>CUB 216</td>
<td>Dr. J. A. Harsch, DVM</td>
</tr>
<tr>
<td></td>
<td>Lunch</td>
<td>11:00-11:55</td>
<td>CUB 216</td>
<td></td>
</tr>
<tr>
<td></td>
<td>10:05-10:55</td>
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**AFTERNOON PROGRAM**

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<tr>
<th>Lecture Number</th>
<th>Title of Lecture</th>
<th>Time</th>
<th>Place</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>23</td>
<td>Common infectious respiratory diseases of the horse</td>
<td>1:00-1:55</td>
<td>CUB 216</td>
<td>Dr. J. A. Harsch, DVM</td>
</tr>
<tr>
<td>24</td>
<td>Hoof abnormalities and treatments</td>
<td>2:00-2:50</td>
<td>Livestock Arena</td>
<td>Mr. R. Hoover</td>
</tr>
<tr>
<td></td>
<td>Coffee Break</td>
<td>2:50-3:05</td>
<td>Livestock Arena</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dinner</td>
<td>5:45</td>
<td>CUB Ballroom</td>
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**EVENING PROGRAM**

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<tr>
<th>Lecture Number</th>
<th>Title of Lecture</th>
<th>Time</th>
<th>Place</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Your Choice: Horsemen's Smoker</td>
<td>7:00-9:00</td>
<td>CUB Outing Lounge</td>
<td>Staff &amp; Students</td>
</tr>
<tr>
<td></td>
<td>Little International</td>
<td>7:00-9:30</td>
<td>Livestock Arena</td>
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### Friday, December 15 — MORNING PROGRAM

<table>
<thead>
<tr>
<th>Lecture Number</th>
<th>Title of Lecture</th>
<th>Time</th>
<th>Place</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>25</td>
<td>Rheumatoid and osteo-arthritis in the horse</td>
<td>6:30</td>
<td>CUB Ballroom</td>
<td>Dr. W. R. McGee, DVM</td>
</tr>
<tr>
<td>26</td>
<td>Horse &quot;Cents&quot; Economy</td>
<td>8:00-8:50</td>
<td>CUB 216</td>
<td>Dr. M. E. Ensminger</td>
</tr>
<tr>
<td>27</td>
<td>Feeding Horses</td>
<td>9:00-9:50</td>
<td>CUB 216</td>
<td></td>
</tr>
<tr>
<td>28</td>
<td>Experience with track injured horses</td>
<td>10:05-10:55</td>
<td>CUB 216</td>
<td>Mr. B. G. Stark</td>
</tr>
<tr>
<td></td>
<td>Lunch</td>
<td>11:00-11:55</td>
<td>CUB 216</td>
<td></td>
</tr>
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<td></td>
<td>12:00-1:00</td>
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**AFTERNOON PROGRAM**

<table>
<thead>
<tr>
<th>Lecture Number</th>
<th>Title of Lecture</th>
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<th>Place</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>29</td>
<td>Improving agriculture's public relations through use of the mass media</td>
<td>1:00-1:55</td>
<td>CUB Outing Lounge</td>
<td>Mr. G. Lorang</td>
</tr>
<tr>
<td>30</td>
<td>Lessons in principles of effective speaking</td>
<td>2:00-2:50</td>
<td>CUB Outing Lounge</td>
<td>Dr. R. P. Fausti</td>
</tr>
<tr>
<td></td>
<td>Coffee Break</td>
<td>2:50-3:05</td>
<td>CUB Ballroom</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dinner</td>
<td>3:05-3:40</td>
<td>CUB Ballroom</td>
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<tr>
<td></td>
<td></td>
<td>3:40-4:15</td>
<td>CUB Ballroom</td>
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</table>

### Agricultural Public Relations Section — Stockmen's Short Course

**DECEMBER 13-15, 1961**

**Wednesday, December 13 — MORNING PROGRAM**

<table>
<thead>
<tr>
<th>Lecture Number</th>
<th>Title of Lecture</th>
<th>Time</th>
<th>Place</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>What is public relations?</td>
<td>6:30</td>
<td>CUB Ballroom</td>
<td>Mr. R. A. Sandberg</td>
</tr>
<tr>
<td>2</td>
<td>Creating a better image for agriculture; accentuating our agreements</td>
<td>10:05-10:40</td>
<td>CUB Ballroom</td>
<td>Dr. G. B. Wood</td>
</tr>
<tr>
<td>3</td>
<td>Improved public relations—a call for greatness in American Agriculture</td>
<td>10:40-11:15</td>
<td>CUB Ballroom</td>
<td>Dr. M. E. Ensminger</td>
</tr>
<tr>
<td></td>
<td>Lunch</td>
<td>11:20-11:55</td>
<td>CUB Outing Lounge</td>
<td></td>
</tr>
<tr>
<td></td>
<td>12:00-1:00</td>
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<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>Improving agriculture's public relations through use of the mass media</td>
<td>1:00-1:55</td>
<td>CUB Outing Lounge</td>
<td>Mr. G. Lorang</td>
</tr>
<tr>
<td>5</td>
<td>Lessons in principles of effective speaking</td>
<td>2:00-2:50</td>
<td>CUB Outing Lounge</td>
<td>Dr. R. P. Fausti</td>
</tr>
<tr>
<td></td>
<td>Coffee Break</td>
<td>2:50-3:05</td>
<td>CUB Ballroom</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dinner</td>
<td>3:05-3:40</td>
<td>CUB Ballroom</td>
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<td></td>
<td></td>
<td>3:40-4:15</td>
<td>CUB Ballroom</td>
<td>Mr. R. C. Liebenow</td>
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**EVENING PROGRAM**

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<th>Place</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Public Relations Smoker</td>
<td>7:00-9:00</td>
<td>CUB 216</td>
<td>Staff &amp; Students</td>
</tr>
<tr>
<td>Lecture Number</td>
<td>Title of Lecture</td>
<td>Time</td>
<td>Place</td>
<td>Instructor</td>
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<tr>
<td>Thursday, December 14—MORNING PROGRAM</td>
<td></td>
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</tr>
<tr>
<td>9</td>
<td>Improving agriculture's public relations through exploding some myths about agriculture</td>
<td>8:00- 8:55</td>
<td>CUB Outing Lounge</td>
<td>Mr. R. L. Kathe</td>
</tr>
<tr>
<td>10</td>
<td>Improving agriculture's public relations through providing accurate source material</td>
<td>9:00- 9:50</td>
<td>CUB Outing Lounge</td>
<td>Mr. R. L. Webster</td>
</tr>
<tr>
<td>11</td>
<td>Improving agriculture's public relations through speaking and writing</td>
<td>9:50-10:05</td>
<td>CUB Ballroom Lounge</td>
<td>Mr. C. A. Bond</td>
</tr>
<tr>
<td>12</td>
<td>A lesson in the principles of effective writing</td>
<td>10:05-10:55</td>
<td>CUB Outing Lounge</td>
<td>Mr. R. R. Kull</td>
</tr>
<tr>
<td>13</td>
<td></td>
<td>11:00-11:55</td>
<td>CUB Outing Lounge</td>
<td>Mr. R. R. Kull</td>
</tr>
<tr>
<td>14</td>
<td></td>
<td>12:00- 1:00</td>
<td>CUB Ballroom</td>
<td></td>
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<tr>
<td>AFTERNOON PROGRAM</td>
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<tr>
<td>15</td>
<td>The positive approach in agricultural public relations</td>
<td>1:00- 1:55</td>
<td>CUB Outing Lounge</td>
<td>Mr. N. Braden</td>
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<td>19</td>
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THE STOCKMEN'S SHORT COURSE INSTRUCTORS

- Mr. E. William Anderson
  Range Conservationist
  Soil Conservation Service, USDA
  Box 798, Pendleton, Oregon
- Dr. James W. Bailey, DVM
  Department of Veterinary Science
  University of Idaho
  Moscow, Idaho
- Dr. R. F. Baker, DVM, Head
  Veterinary Clinical Research
  Abbott, Laboratories
  Scientific Divisions
  North Chicago, Illinois
- Dr. Ronald Baker, Owner
  Beef Acres Comical Cattle Feed Yards
  Route 1, Box 210-1A
  Hermiston, Oregon
- Dr. Victor B. Beat, DVM
  Nutritional Consultant
  Vitaminal Products
  1520 N. E. Adams
  Peoria, Illinois
- Dr. H. Ernest Bechtel, Director
  Technical Service & Development
  Dawe’s Laboratories, Inc.
  4800 South Richmond St.
  Chicago 32, Illinois
- Mr. Eaton Becker
  Becker Hereford Ranch
  Wilsall, Montana
- Dr. W. M. Beeson, Department of Animal Science
  Purdue University
  Lafayette, Indiana
- Mr. N. Beeson
  Branch Dietary Consultant
  Codding-Armour
  Ashland, Ohio
- Dr. J. M. Bell, Head
  Department of Animal Husbandry
  University of Saskatchewan
  Saskatoon, Saskatchewan, Canada
- Dr. James A. Bennett, Head
  Animal Husbandry Department
  University of Idaho
  Logan, Idaho
- Dr. R. T. Berg
  Department of Animal Science
  University of Alberta
  Edmonton, Alberta, Canada
- Dr. Robert L. Blackwell, Director
  Western Sheep Breeding Laboratory
  U.S. Sheep Experiment Station
  U.S.D.A., Dubois, Idaho
- Dr. T. H. Blom, Chairman
  Dairy Science Department, WSU
- Mr. C. A. Bond, Extension Editor
  Agricultural Extension Service, WSU
- Mr. Norman Braden, Director
  General Extension Service, WSU
- Mr. David H. Brannon
  Extension Entomologist
  Agricultural Extension Service, WSU
- Dr. James E. Briggs, Director
  Nutrition Research
  Hess and Clark
- Dr. Bruce L. Brooks
  Department of Agricultural Economics, WSU
- Dr. William H. Burkitt, Director of Nutrition
  Montana Flour Mills
  Great Falls, Montana
- Dr. Leo A. Basted
  Experimental Animal Farm
  General Electric Company
  Richland, Washington
- Mr. Glenn Beattie, Manager
  Ogeechee Farms
  Fairland, Oklahoma
- Mr. F. A. Carney, Internal Revenue Agent
  U.S. Treasury Department
  201 Post Office Building
  Spokane 1, Washington
- Mr. R. R. Carpenter
  Carpenter's Purebred Herefords
  Hayden, Colorado
- Mr. Paul D. Christenson, Gen. Mgr.
  Western Structures, Inc.
  719 Board of Trade Building
  Portland 4, Oregon
- Dr. Wayne B. Cizer, DVM
  Box 214
  Snohomish, Washington
- Mr. Charles H. Coddington, Jr.
  Coddington-Armour Research
  Folsom, Oklahoma
- Dr. R. W. Colby, Director
  Agricultural Research
  The Dow Chemical Company
  PO Box 188
  Lake Jackson, Texas
ENROLLMENT FORM

Please fill out, detach this page, attach your check and forward to:
Dr. M. E. Ensminger, Chairman
Animal Science Department
Washington State University
Pullman, Washington

Name.......................................................................................................................

(last) (first) (middle initial)

Address..................................................................................................................

(town) (county) (state)

Occupation...........................................................................................................

I wish to enroll for ...................... days. (YOU WILL BENEFIT BY ENROLLING FOR THE FULL FIVE DAYS.)

I wish to attend on the days checked: ..........Monday, ..........Tuesday, ..........Wednesday, ..........Thursday, ..........Friday.

Enrollment Fee, including a choice of either the Stockmen's Handbook, the Stud Manager's Handbook, or the Public Relations Handbook: $25.00 for two or more days; or $13.00 for one day.

SOME SPECIAL ENROLLMENT RATES

Please check in the space to the left if these apply to your enrollment:

☐ 1. A man and wife, or father and son, are eligible for the family rate by merely adding $10.00 to the above charges for each added enrollee, and this will include a copy of either the Stockmen's Handbook, the Stud Manager's Handbook, or the Public Relations Handbook for each enrollee.

☐ 2. County Agents and Vocational Agriculture Instructors will pay a $10.00 enrollment fee, and this will include a copy of either the Stockmen's Handbook, the Stud Manager's Handbook, or the Public Relations Handbook.

☐ 3. College and High School Students will pay a $25.00 enrollment fee, and this will include a copy of either the Stockmen's Handbook, the Stud Manager's Handbook, or the Public Relations Handbook.

ROOM: $...................... enclosed to cover cost of room accommodation in college dormitory. (Rate is $2.50 per person per night, with bedding and room cleaning furnished by WSU; or $12.50 for all five nights.) Please check nights for which you wish to make room reservations:

Sun; Mon; Tues; Wed; Thurs.

Those wishing to reserve rooms in a motel or hotel see earlier section entitled, "Housing and Meals" for information. Since rooms may be scarce, an early reservation is urged.

MEALS: $...................... enclosed to cover cost of meals. (Rates: Breakfast, $1.04, lunch, $1.56, dinner, $2.08 each (includes tax); except Student-Stockman Banquet which is $2.75). Total for meals, Monday through Friday noon, including the Student-Stockman Banquet (no meal will be served on Friday evening), is $21.99.

About the Meals: They will be the best; hunt-type breakfasts, buffet luncheons, and smorgasbord evening meals. For the Student-Stockman Banquet, we shall “Knight Shriners”, with one full pound of it served to each person.

ALL CHARGES: $...................... Total charges for full five days are $59.49. This includes (1) enrollment, (2) a Handbook (your choice), (3) University dormitory room, and (4) meals—including Student-Stockman Banquet. Charges for Special Students (see above section on “Some Special Enrollment Rates”) will be lessened by the amount of the lower enrollment fee indicated.

TEAR HERE
The title of this afternoon's program is "Big, Successful Livestock Operations." Our operations are about fifteen hundred miles west of here. Greeley, Colorado is fifty miles north of Denver and fifty miles south of Cheyenne, Wyoming. Weld County has for many, many years ranked in the top five counties in both cattle and lamb feeding.

Our country is an irrigated rolling plains country lying directly east of the mountains. The continental divide is about sixty miles west of Greeley. Our irrigation water comes from the South Platte and its tributaries.

Our operations are owned by a family corporation known as Farr Farms Company. We own and operate eight irrigated farms totaling about twenty-five hundred acres. We also own and operate a grass cattle ranch about twenty-five miles from Greeley. This ranch is operated as a steer ranch. The capacity is about twelve hundred steers. We feed lambs on two farms and cattle on the other six. In addition, we operate our main cattle feedlot at Greeley.

Our cattle feeding is done on a continual purchase and sale plan. The yearly sales are about twenty-five thousand head. The yards are operated entirely with our own cattle. We do not do any custom feeding for others.

On our farms, we raise sugar beets, potatoes, corn, and alfalfa hay. The beets are contracted to Great Western Sugar Co. We buy dehydrated beet pulp pellets and molasses from Great Western for our cattle feeding.
The alfalfa is partially baled and partially dehydrated. The potatoes are grown on contract for potato chip companies. Corn is grown primarily for silage. We are just starting to grow corn to be harvested with combines as high moisture shelled corn.

Obviously, we only raise a small amount of the feed we use. I believe you might be particularly interested in some of our feed procurement activities.

Our fieldmen are now actively contracting corn to be grown for Farr Farms Company in the summer of 1966. We will contract about two thousand acres of corn for silage and about four thousand acres to be grown as high moisture corn.

We furnish the corn seed to the farmer in order to control quality and maturity. He plants, cultivates and irrigates the crop. When September first arrives, our machinery starts cutting corn silage on a twenty-four hour basis. We use self-propelled Fox cutters and cut on an average of two thousand tons daily. We expect to store fifty thousand tons of silage this fall.

The high moisture corn operation is somewhat the same. We furnish the seed; when the moisture gets down to around thirty-five percent, we start harvesting and continue as rapidly as possible to harvest the crop. The corn is all cut with combines and the shelled corn is brought to Greeley where it is ground and stored in pits. We expect to store about four hundred thousand bushels of this product this fall.

Probably before we look at the slides, I should tell you a little about how we buy and sell cattle.
You remember I stated we did not feed cattle commercially for other people. We make our living feeding cattle. We have a few basic rules. Some of them are -- We will feed either steers or heifers, whichever is the best buy at the time. We will feed any quality animal from Holsteins to high quality, again depending on price relationship. We like to buy animals weighing from five hundred to seven hundred pounds, but we go on both sides, if the price is right. We are not particular where the cattle originate or whether they are one mark and brand.

Our cattle are all sold for slaughter in the Denver area. We intend to make all of the cattle grade choice. The buyers come to the feedlot and buy cattle by the penful as we show them. They are weighed at our feedlot at 7:00 a.m. in the morning and delivered to the slaughter plant in our trucks.

Our cattle rations are worked out with a nutritionist in California. They are all planned and balanced for least cost on a computer. We are currently in the process of converting all of our accounting and record keeping to a computer in Greeley.

I have about thirty slides that will more graphically illustrate some of the facts I have given you. As these are shown, I will try to point out the interesting points. The slides are views of the main feedlot at Greeley.

* * * * * * *

The first slide is an aerial view of the feedlot as we flew north.

Next an aerial looking northwest towards town; you realize here that the feedlot joins the city limits of Greeley.
Then an aerial looking west with the Great Western Sugar Co. directly behind the feedlot. The reason the feedlot is located here is because of wet beet pulp before the days of dehydration.

Another aerial looking north showing the lay of the land and in the distance the large white elevator is the Monfort feedlot.

Then we flew a closeup of the feed mill and the large garage for feed truck and tractor storage.

Finally, a closeup looking down on the mill and the feedlot office.

We come down and show you a closeup of the feedmill. The right side is the receiving side where whole product is unloaded. The concrete section is the grinding-weighing room. The north side is mixing and the center drive is feed delivery.

The feedlot office is the nerve center. A very busy place. Weighing of silage and high moisture or Corn 30. Feeding instructions - Inventory - Computer.

The silage and Corn 30 pits.

A load of Corn 30 on side dump truck.

Sideview of the office and mill shows the flow of traffic. Feed trucks come onto the scale, load silage, then Corn 30 and proceed to the mill where they receive balanced rations and molasses.

Closeup of a feed truck on scale with the feed drags in operation.

Another view showing the round drum feeding arrangement.

New diesel unit feed truck - Direct drive in front - Continuous operation, Harsh Hydraulic boxes.
Closeup of truck drive mechanism.

Inside view of the mill room showing some of the valves, meters, scales.

A feed truck in action in a new style pen.

Another view closer up.

Now a truck showing the older construction.

Next, we go to the silage pit. This is an Oswalt Loader with reel up.

Loading silage on a chilly morning.

A detailed side view of silage loading.

And a closeup of the loader.

Front view of silage pit to show approximate size. Note gunnite walls, concrete floor, drained to a corner. 600 feet long, 70 feet on top, 50 feet in bottom, 12 feet deep with ensilage 20 feet deep. This pit holds 25,000 tons.

This is an aerial view of the pit area showing covered pits with plastic and tires.

Two silage pits, one corn pit, one to be constructed.

A view of the Corn 30 pit.

Another Corn 30 view showing Cat 922 rubber-tired loader.

An aerial of the hammer Corn 30 mill.

Closeup of the mill - Note controls - 400,000# capacity.

Now to the cattle receiving and shipping area - RR chute in background.

The truck chute and scales, covered scales -- everything weighed into and out.
Side view of chute and a better look at covered scales.

Truck chute details --

Truck chute details.

*********

I have tried to show you slides of features that maybe you haven't seen in other areas. If you will allow me to brag a little, I honestly believe you have seen pictures of one of the most efficient feedlots in the west. It is not nearly as large as many others, but we work very hard on trying to operate one of the best.

Cattle feeding has grown rapidly all over the United States. It has become a very competitive business. Our area must ship dressed beef carcasses fifteen hundred miles further than you do. We have to offset these disadvantages with efficiencies of large operations.

I am sure that all of you realize the problems of feed procurement, feeder cattle procurement constantly, the repair and maintenance of equipment and mills. These big operations don't run themselves. It is a twenty-four hour job for myself, two sons, and many loyal and wonderful employees.
Last January, I received a telephone call from Washington, D.C. The Foreign Agricultural Service asked if I would be willing to go to Paris and take part in an international symposium on cattle. A few days later, the U.S. Feed Grains Council called and said; "We understand you will be in Paris the first week of March. When the cattle symposium is over, will you go to Spain for a few days, then to Italy for a week? These countries need help in their beef production."

Today, I will attempt to tell you some interesting facts about world cattle production. Also some experiences and observations gained during this three week trip. The advantage of traveling under government auspices with interpreters in rural parts of Spain and Italy gave us an opportunity to see and learn more than otherwise would be possible.

The first week of March is always "The Salon International de L'Agriculture" in Paris. This event is somewhat like a big State Fair. Cattle, hogs, sheep, goats, a few horses, chickens, pigeons, turkeys, and rabbits from all over Europe are exhibited. Each country had an exhibit area where they showed samples of their agricultural production. These displays of fruits, vegetables, canned goods, wines, beer, and other products were beautifully exhibited.

There were always food booths in the exhibit where you could buy a sample of the various cheeses, wines, meats, and breads. For example,
in the French exhibit we had "Crepe Suzettes" liberally sprinkled with French Brandy. The farm machinery companies have a fantastic display of their equipment. We were told that this is the largest machinery show in the world. The night entertainment at the fair was "Holiday on Ice", the same United States traveling show that is in Denver each October. The music and songs were all in English, just as you would hear it in Denver. The show was a sell out every night.

Each year in conjunction with the fair, they hold an international symposium known as "Colloque Ceneca." The French Minister of Agriculture sponsors both events. Each year they pick a different agricultural product to emphasize. This product gets special attention at the fair and becomes the theme of the symposium. This year the emphasis was "L'Elevage Bovin", so the theme of Ceneca was "Cattle Rearing."

The Ceneca meetings are held at the Unesco building in Paris. Unesco is the United Nations Educational Scientific and Cultural Organization. The building covers a square block and is several stories high.

The auditorium is equipped with ear phones for instantaneous translation exactly like the United Nations in New York.

Another branch of the United Nations is the FAO, Food and Agriculture Organization. They have three offices in the world at Washington, D.C., Rome, Italy, and Santiago, Chile. This was a side of the United Nations effort that I had not appreciated before. The work of these two branches
of United Nations is having a tremendous effect on the rapid progress of
the developing countries.

There were forty-three countries represented at the Ceneca meetings.
The papers were given in the language of the participant and translated into
English, French, German, Spanish, and Russian. The speakers were
grouped into six sections with a moderator for each group. Our U. S.
delegation was headed by Dr. Kenneth Ogren, a member of the Foreign
Agricultural Service staff in Washington, Dr. John H. McCoy of Kansas
State University and myself. Each of us appeared in a different section of
the program.

Mr. M. Georges Monnet, ex-minister of Agriculture and Director
General of Ceneca, opened the first session, carefully making the point that
"Cattle Rearing" was of extreme importance today because of the world food
situation.

The first moderator was Dr. Robert Temple, Beef Cattle Production
Officer of Food and Agriculture Organization for Europe. I quote Dr. Temple,
"With the consciousness that the life of millions need not be at starvation
level and with the desire and ability to afford better standards of living, the
need for more protein becomes imperative. The world's cattle industry
faces not only opportunity but also an obligation. Enormous developments
are possible through practical and feasible means." End of quote

One of the interesting facts is that the developing countries are showing
the same phenomenon that we have observed in this country. That is, a given
percentage increase in per capita income is reflected by an equal increase in per capita meat consumption.

We have over one billion cattle and buffalo in the world. The distribution is interesting. India has the largest cattle population with 240 million but they do little for the country since religious beliefs prohibit their slaughter. India also has a large buffalo population and they use them three ways - meat, milk and draft. Latin America has 212 million cattle; North America, Europe, and Africa all have about the same numbers, just under 120 million each. Russia has over 90 million.

There are over one hundred million domestic buffalo in the world. These buffalo are what we would call water buffalo. Actually, there are ten recognized breeds of domestic buffalo. A little known fact is that half of the world's human population is dependent on the work capacity and the health of the domestic buffalo.

Buffalo can exist on very poor roughage. They are semiaquatic animals which make them ideal in the rice growing areas of the world. They have been the draft animals in India, Egypt, Pakistan, and the Phillipines for hundreds of years.

Buffalo milk is very rich and is usually diluted. It makes good cheese of many kinds, including the famous Mozarrella cheese of Italy. They do not slaughter the animals for meat until they have worked for many years. The average slaughter age is twelve years. Obviously, the meat is tough, stringy and not too appetizing but very nutritional and full of protein.
The production of meat from this billion head of cattle and buffalo is relatively small. For example, the United States with 109 million cattle have approximately ten percent of the cattle of the world, but we produce thirty-two percent of the beef of the world. Russia is second with about twelve percent and Argentina third, with eight percent of the world beef production.

These production figures show that the great problem of the world cattle industry is to increase productivity. This was the reason for the symposium and also the reason why we went on to Spain and Italy. Tremendous efforts to increase regional production of livestock will be necessary during the next few years, if existing low human nutritional levels are not further lowered. Mr. Lajos Borsody of the Food and Agriculture Organization stated that world meat production would have to increase 70% to 90% in the next twenty years.

Tropical environment seems particularly favorable to the development of microbes and pathogens, and animal diseases have therefore always been of exceptional importance and gravity to great areas of the world. There are over 4,000,000 square miles in Africa where the Tse-tse fly produces trypanosomiasis (trip' a nō sō mi' a sis) a form of sleeping sickness. It is estimated that if you could eliminate the Tse-tse fly this area would support a cattle population of 125 million head; more cattle than we have in the United States.

Cattle diseases and parasites are tremendous problems in most areas of the world.
The worst worldwide cattle disease is foot and mouth disease. We have had outbreaks of this in the United States on two occasions, but by drastic slaughter methods it has been quickly eliminated. North America, Australia, New Zealand and Ireland are the only countries that are free of the disease. Where it is prevalent, they estimate the losses at 25% abortion - a drop of 50% in milk production - and a drop of 25% in meat production. These figures are on infected animals. Because it is a virus disease, sometimes it is dormant for several months then an explosive outbreak.

When we speak of cattle in this country, we think of Herefords, Angus, Charolais, and a few dairy breeds. There are over 250 recognized breeds of cattle in the world. Most of them have been developed for their ability to utilize the local food and adapt to local health conditions. Many breeds are two-way cattle - milk and meat. Others are three-way - milk, meat, and draft. Most countries do not have extensive range lands where cattle can be raised solely for beef. Fortunately, we in the U.S. have the land and we also like beef, so we raise cattle on what most countries feel is an extravagant basis. Several times the question developed as to what is the most important breed of cattle. The consensus of opinion from most areas was the Friesian. This is the breed that you know as Holsteins or to those of you who are not farm oriented, they are the common black and white dairy cow. This breed of cattle is being more intensively improved and more widely used than any other breed of cattle in the world.

The section where I participated had to do with cattle nutrition and cattle feeding. All of the countries are interested in these problems. The
potential of increasing total production is very great in this area. For example, each one of you as an average American consumer ate 103.5# of beef in 1966. In 1936, you consumed about fifty pounds of beef. The important point is that our basic cow herd is no larger now than it was thirty years ago, but we have doubled the production of beef on the table by our cattle feeding.

This doubling of beef production entirely by cattle feeding is the most dramatic success story in all of agriculture anywhere in the world. Weld County, which is famous for its' cattle feeding, has been and still is one of the leading areas.

The Ceneca symposium was a very interesting experience. I was tremendously impressed with the African representatives and their great desire to improve their countries.

The northern countries - Iceland, Norway, Denmark, Sweden - have the problems of winter and seven or eight months of long confinement. The Russians surprised me by taking an active part. They told us that they had been keeping registered herd book cattle for over one hundred years. There were about one hundred participants and I am sure that beef production will increase more rapidly over the world because of this symposium and the exchange of ideas.

We went from Paris to Madrid, Spain, where we were met by Conrad Amavisca, U. S. Feed Grain Council representative for Spain and Portugal. Mr. Amavisca is a young man from Arizona. His parents are of Spanish descent. He holds a masters degree from the University of Arizona and
speaks Spanish, Portuguese, and English fluently. In fact, we had one Spaniard ask him where he learned his English.

Spain has been a very backward country. In recent years, they have started to develop at a faster rate than any other country in Europe. Franco, the Dictator, rules with an iron hand and apparently quite well. They have no public school system at all. Just recently, they passed a law making it illegal to work full time until children reach the age of twelve. Franco has pushed the University of Madrid with the idea that the higher income citizens have gone to either church or private schools. Therefore, if enrollment in college can be increased, then eventually there will be teachers available; then they will develop public schools as the next step forward. A man from the University took us to his ranch to show us his black Morucha cattle. These are the cattle that have been raised for hundreds of years as fighting bulls for the bull ring. His family has raised fighting cattle for generations. This is no longer profitable, so his problem was: how can he change these fighting cattle to beef cattle in the best and quickest way? Fighting bulls are heavily muscled in the shoulders and neck for charging. Their hindquarters are very light so they can turn and pivot quickly. The high priced cuts of meat are on the opposite quarters in good beef cattle. His problem will take years, but he is making a start.

Our next experience was to fly to Seville where we were met by the Minister of Agriculture of that State. We drove through fine irrigated farmland, with cement ditches and laterals, very productive soil and wonderful crops started. Sugar beets were being thinned on March 6th. Alfalfa was
being cut. The farm equipment was very old. Mules were the draft animals. We saw hundreds of mules coming to the villages to get shots for sleeping sickness. The people live in the villages and go out three or four miles to work the land. These old villages are hundreds of years old and they are doing most things as they have always done them.

We went up into the foothills in an area similar to Horsetooth Reservoir. The estancia has been owned by the same family for several generations. The immense old Spanish home had a front yard fenced in with a steel grate fence of the kind you used to see on bank windows. This play yard was about fifty by seventy-five feet, enclosed in a half circle. The reason for the fence was to keep the wolves from coming into the ranch yard and getting the very small children.

Lunch at this ranch was an experience that I must relate to you. We were seated in the parlor around a table with a blanket over it. Under the table was a tub of hot charcoal. If you were chilly you raised the blanket onto your lap and warmed your feet and legs quickly. We were served wine or beer, cheese, bread sticks, salami, the best green olives (they raise them) peanuts and hazelnuts. This took an hour and we thought this was lunch. It was only the starter. Next, we moved into the dining room with the same blanket and charcoal, only a bigger table with a tablecloth on top of the blanket. A big platter of rice Panella was served in the middle of the table. Everyone reached over and helped themselves until the rice was gone. Next, a platter of whole hard-boiled eggs cooked in a large
dish with wild asparagus. Again, you were expected to eat all of it. Finally, fresh oranges raised on the ranch that were delicious. They were blood red in color and had a very wonderful flavor. It took a little over three hours to eat lunch and they apologized for hurrying because we had to see the estancia and get back to Seville to catch an airplane.

The cattle on this ranch were the Retinto breed. Red cattle with very little shape, but very quiet, compared to the fighting cattle. He had several hundred hogs running loose on the ranch like wild animals. They kept Merino sheep because they were three-way sheep, Wool - Milk - and Mutton. Actually, they slaughter the baby lambs when they are only two weeks old. They cook them in quarters, like we would fry chicken. Then the sheep are milked daily for several months. How would you like to be a shepherd and have a hundred ewes to milk every day? The sheep milk is made into cheese. Most Spanish cheese is either sheep or goat cheese because they literally have no milk cattle.

They took us to a hillside and proudly showed us what they said was the first brush clearing and replanting with legumes that had been done in Spain. The plot was probably a hundred acres and it looked real good. The minister of agriculture was extremely happy about the apparent success of this venture.

The next day we had a formal lunch in Madrid with the Minister of Agriculture of Spain, the U. S. Agricultural Attache, three men from Coez, which is the big Spanish coop. This lunch took four and a half hours. They
never ran out of questions. Spain has to import much of its' food and this is difficult in a developing nation because they need their money at home to develop rather than sending it to Argentina for beef.

Since I returned home, there has been a press release stating that Spain was importing about three hundred Hereford cattle from England. These are the first beef cattle to ever come into Spain. This is progress and proof that the people are sincere about improving their country.

Coez is taking a major role in the agricultural development of Spain. We went to their office after lunch to review their meat production plans. An American from Indiana has drawn blueprints for a cattle feedlot. It will be located close to a port where grain can be imported and unloaded easily and cheaply. Coez will build a modern slaughter facility. The large Spanish distillery company is going to furnish the capital for the feedlot and the cattle to go into the lot.

It was a thrill to review the plans, answer questions, and see the enthusiasm of these men, who are starting to bring Spain back to a position of importance. Spain ruled the world for about two hundred years and then slipped into obscurity. It is a country of many resources and there is no question of the fact that Spain is beginning to awaken towards its' potential.

The U. S. Feed Grain Council is a non profit organization which is financed largely by the large grain companies of the United States. Their main office is in Washington, D. C. They work very closely with the Foreign Agricultural Service and part of their overseas activity is paid by
our government. Fundamentally, they want to sell grain to foreign nations. Uncle Sam, through the Commodity Credit Corporation, has been the biggest grain dealer in the world. Their efforts have been highly successful because today we are exporting more grain than we consume.

In Rome, we were met at the airport by Romano Grazianni and his father. Romano is the Feed Grain Council representative for Italy. He did his university work in Italy, and secured his master and doctor degrees at Davis, California, which is the agricultural branch of the University of California. His father grew up in Rome living almost in St. Peter's Square. For many years, during his boyhood he served in St. Peter's doing every job a boy could do. As a young man, he finished his education in the U. S. and then devoted his life to YMCA work. Today, he is retired and works as a professional guide in Rome for selected parties. I mention this detail to give some idea of how fortunate we were in being able to get full information about Italy. Any of you who have traveled in foreign countries know how difficult the language barrier is. To be able to talk freely all day with Romano's father and for several days with Romano gave us an insight into Italy that was very complete.

Italy, as you know, is a long narrow country. Rome is located about in the center. There is a north-south highway through the middle of Italy, called the Auto Strada. We traveled this six-lane highway north to Milan. It is a marvelous highway with beautiful filling stations about every thirty miles and large overhead restaurants across all six lanes, about every
sixty miles. You can travel at speeds of 100 miles per hour if you want to drive that fast. For contrast, there are many oxen plowing the fields with wooden plows beside the road.

The highway goes through Florence where the flood of the Arno River was very visible. Then over the Appenines Mountains, through tunnels and bridges, like I have never seen. Finally, as you come out of the last tunnel on the east side lying before you is the great Po Valley.

The Po Valley in northern Italy, is one of the greatest agricultural areas of the world. The Po River is formed by several small streams coming out of the Alps. It is a huge river which has built a very rich river delta of alluvium soil as it heads eastward to the Adriatic Sea. The Po Valley is not much larger than Weld County, but it has 23,000,000 inhabitants which is almost half the population of Italy.

It is the most diversified body of land in the world. They raise literally every crop known, fruit of all kinds - peaches, pears, plums, apples, cherries - olives, nuts of all kinds, grapes of all varieties; cotton, sugar beets, corn, wheat, vegetables - everything but citrus. I saw one sugar factory with bulk sugar bins, like our new white Great Western tanks in Greeley, only this sugar mill sliced 4,000 tons of beets daily, more than twice the capacity of Greeley.

There is extensive irrigation in the valley. The land lays well and is well farmed by good machinery.

Venice is, of course, a unique city that many people visit. Very few
visitors realize that the low flat land surrounding Venice is dyked and
farmed as intensively as the Netherlands. They have immense ditches
that work both ways; either to carry irrigation water to the land or as
drainage ditches to carry water away.

Italy next to Belgium is the most densely populated country in Europe.
Wheat is the major crop supplying the major food the dozens of varieties
of Pasta which Italians live on. Their meat consumption is very low
because they cannot afford the extravagance of livestock. They cannot
pasture anything except on very steep hillsides. Every blade of grass is
cut daily and taken to the barns where the cows live indoors, without even
an exercise yard.

Their cattle are almost entirely Friesan cattle kept for milk. The
calves are put on feed when they are three or four days old. They are fed
on a milk replacer for a month in single stalls. Then they are switched to
concentrate rations and finished in barns after ten months feeding. We
visited several of these dairy calf feedlots. One man had 100 cattle outdoors.
He told me that this was the first feedlot in Italy.

Italy is one of the largest food importers because of the high population.
It has not been a wealthy country. Their problem is to try to raise the most
food and import as little as possible. Italy is developing a rather large
industrial region around Modena and Bologna. This industrial development
is attributed to the community of six, or the European common market.

West Germany, France, Italy, The Netherlands, Belgium and Luxemborg
have all made substantial growth, either industrially or agriculturally. They have all raised their income and their standards of living, so the demand for meat is constantly increasing.

Verona, Italy is another city in the Po Valley about half way between Venice and Milan. They have an annual fair very similar to the Paris fair. It ran for a week and registered over one million visitors. The United States had an exhibit at this fair. The exhibit this year was promoting turkeys and hogs. The U. S. has the basic know-how and the best hybrid poultry in the world, so we either supply breeding stock or hatching eggs. We also have some very fine hogs, both crossbreds and straight breeds to cross on their hogs. This booth received tremendous acceptance.

On the last day of the fair, they held a panel-type-of-meeting to discuss beef production. Dr. Temple, the FAO man from Rome, plus a German professor from the University of Munich and myself were the panel members. The questions came for two hours. The interest of the Italians and Germans in feeding dairy calves to maturity is very keen.

We have heard a great deal about the population explosion and the demands it will make on our food supply. Actually, the rapid rise in per capita income that has occurred in most countries has generated heavy additional demand on foodstuffs. For example, in the United States it requires 1600 pounds of grain per person per year to supply a high protein diet. This compares to about 400 pounds per person of grain in the less developed countries, including Russia. Our average calorie intake is
about 3000 calories daily, compared to 2000 calories in the less developed countries. The calorie intake is only 50% greater but on a grain use basis it is 400% greater. This is a result of rising per capita income. As per capita income increases people eat less grain as food and demand more meat protein.

This rising per capita income all over the world is starting to make backward countries develop all of their natural resources. The scientists are beginning to solve problems that have plagued many areas of the world for thousands of years.
Sidney — Nebraska Stock Growers Assn. members at a meeting here were told that the cattle industry will continue in the doldrums until it faces the problem of producing cattle that can be sold on performance.

W. D. Farr of Greeley, Colo., nationally known cattle feeder, said, “The cattleman must accept progress and face competition. This change is a revolution, and the answer is for the cattle industry to produce hybrid cattle where they can be sold with a performance assured the feeder like hybrid corn does for the farmer.”

He said this would involve three and four-way crosses of cattle with known background. The feeder would be saved three cents per pound if high gaining cattle could be assured for the feedlot.

Farr said he would be willing to pay a premium for such cattle, and that already some large companies are preparing to breed such an animal. The poultry industry is the biggest competition to the cattleman, he said. Cattlemen must copy efficiency methods in order to compete with poultry and turkeys.

**Industry Changes**

Farr said that among the changes in the cattle industry, the movement of practically all cattle through a feedlot has doubled the amount of beef available to consumers. He warned of competition to the Midwest and Rocky Mountain area cattleman from southeastern United States cattlemen “who can make a profit when Colorado or Nebraska can’t.”

The Nebraska Stock Growers resolved to strongly oppose any effort to amend or repeal the present tax system by initiative petition. The group also voiced opposition to any change in the sales tax rate which would result in an increased collection of tax from retail sales.

The Stock Growers said of the meat inspection question now being discussed nationally, “The Stock Growers take the position that meat and meat products should be subjected to adequate inspection to insure wholesomeness and sanitation.

“Primary operational and administrative authority of such inspection covering the movement of meat and meat products in interstate commerce is the responsibility of the State of Nebraska.”

**State-Federal**

“The Association shall work for legislation which shall provide for a state-federal cooperative program under which the State of Nebraska shall have operational responsibility.”

The Stock Growers also said they will work for adequate legislation in the area of inedible meat movement, processing and handling that will insure safety of humans and pets.

The group also requested in resolution form that to protect public by assuring wholesomeness and sanitation of imported meats all such meat and meat products should be inspected under an inspection system equal to the U.S. Dept. of Agricultural Meat Inspection Program.

A panel of newsmen shared comments on agricultural publicity during the program with the Nebraska Stock Growers members. Those participating were Forrest Lee, Brownlee, moderator; Ralston Graham, chairman; Jack Lowe, Sidney Telegraph; Don Ringler, Omaha World-Herald; and Glenn Kreuscher, Lincoln Sunday Journal and Star.
Cattlemen Hear ‘Chicken’ Lesson

By Don Ringler
World-Herald Farm Writer
Sidney, Neb. — A Colorado cattle feeder suggested “chicken” to Nebraska beef producers over the weekend.

W. D. Farr of Greeley said at the Nebraska Stock Growers Association’s regional meeting here Saturday that the cattle industry could take a few pointers from poultry producers.

“We can’t buy feeder cattle with any degree of accuracy on how they will gain under identical feeding programs,” he complained in noting that the poultry industry has developed birds with known performance qualities.

He said that cattle must be bred and sold on the basis of performance testing, “and the doldrums in the cattle business will continue until this is accomplished. We must develop hybrid cattle with three or four known bloodlines.”

Legislative Stands
Stating that consumption of poultry has increased 10 times compared to beef’s two in the past 30 years, Mr. Farr said the basic problem was the inability of the cattle industry to effectively eliminate the slow-gaining animals.

During business sessions, the association threw its support behind legislation which would provide a state-Federal co-operative program to assure that all Federal meat inspection standards are met. The ranchers also asked that such legislation make certain all meats bearing the state seal be acceptable for interstate commerce.

In a related move, the group supported Federal legislation providing all imported meats be inspected at origin by an inspection program equal to that of the United States Department of Agriculture.

Present Tax Backed
In other resolutions, the association strongly opposed any effort to amend or repeal the sales and income tax system by initiative petition, or to increase the sales tax rate beyond the current $1.5 per cent.

Inclement weather cut attendance drastically; registration reached 134 at a meeting which in past years has attracted up to five hundred persons.

A speaking contest based on beef promotion planned by the Nebraska Junior Stock Growers Association was postponed when only one contestant appeared.

The lone contestant was Pam Gierau, 13, daughter of Mr. and Mrs. Paul Gierau of Springview.

To Be Rescheduled
Vic Gentry of Whitman, president of the junior group, said the contest would be rescheduled during the annual meeting of the NSGA at North Platte in June.

A panel of journalists agreed that the public image of the cattleman was generally good. Appearing on the panel were Ralson Graham, chairman of the Information Department at the University of Nebraska; John H. Lowe of the Sidney Telegraph; Glenn Kreuscher of the Lincoln Journal and Star, and Don Ringler of The World-Herald.

The men’s luncheon at noon Saturday featured an address by Dr. Jose Guzman-Baldiveso, of the People to People Program.

Merlyn Carlson, Lodgepole, revealed plans to start a foundation to foster education and research from voluntary donations. Its activities would be governed by a board of six directors selected from association membership.

He also said the association is pushing a range livestock research program and would ask the Legislature to provide funds to the University of Nebraska for its establishment.
My remarks today are going to be of a rambling nature. In visiting on the telephone with your secretary, Bob Howard, we talked of the changing livestock picture and how these changes will effect range cattlemen in the next few years.

I know that most of you are range cattle producers. Maybe you have tried cattle feeding in a commercial feedlot, some year when the feeder price didn't seem to be high enough. Probably there are also some cattle feeders in the audience. Now that I have identified the audience, I should identify myself to you.

Farr Farms Co. is a family corporation which operates about 2,000 acres of highly developed irrigated farm land in the Greeley area. We fatten about 25,000 cattle yearly, plus a few lambs. Our cattle ranch is southeast of Greeley near Roggen, Colorado, adjoining the old John E. Painter ranch of Hereford Fame. This property is twenty-five miles from our feedlot, so the most economic use is to operate a steer ranch. Fifteen hundred steers move from the ranch to the feedlot yearly.

Our family is not new to the livestock feeding business. My grandfather, and my father Harry W. Farr were pioneers in lamb feeding in Northern Colorado. Our livestock feeding experience has a seventy-five year history. In 1931, at my insistence, we started our year round steady cattle feeding. That first year saw a total of 350 heifers move through the feedlot.
These facts are mentioned to show many years of experience. I am pleased that two of my sons are associated with me. They are the fourth generation in the farming-feeding business.

In spite of all the changes that I have observed in the cattle business since the drouth depression days of the 30's, I firmly believe there will be a much greater change in the next thirty years.

What are the important changes in the cattle industry in the past thirty years?

First: The Change to Lighter Younger Cattle

In the thirties, there were many ranches producing three year old steers. Slowly the age was reduced to two year old steers, then to yearlings, and now many calves leave the ranches and go direct to feedlots. During this period the average slaughter age of cattle has been almost cut in half.

Second: The Change of Almost All Cattle Except Cows Moving Through a Cattle Feedlot Before Slaughtering.

Cattle feeding was a seasonal winter operation thirty years ago. The majority of the beef consumed was grass beef. Not so today as almost every animal except cows spend sometime in a feedlot prior to slaughter.

Cattle feeding has doubled the supply of table beef to the consumer. In 1936, consumption of beef was fifty pounds per capita. In 1967, it is estimated consumption will be 1035# of beef per person. This tremendous increase has occurred with the same number of cows. In 1936, there were more dairy cows than at present but fewer beef cows. In the midwestern states when they eliminated a dairy cow they substituted a beef cow. This
has kept our total cow herd almost steady for many years. The American consumer who enjoys twice the pounds of beef owes all of this production to the feedlots. This is where all of the extra production has occurred.

Third: The Change in Marketing Patterns

The great central market system was developed all over the United States. At each major rail center a large central market developed. This market system served our country very well for about sixty or seventy years. The development of livestock trucks and good highways have changed and are still changing this marketing system very drastically.

Fourth: The Change Brought About By The Development of Drugs, Antibiotics, Hormones, Insecticides, and Parasite Control Have Contributed To a Major Change In the Location of the Total Cattle Population.

It was not until after World War II when DDT and other chemicals returned with our soldiers that we saw the great increase in cattle production in the south and southeastern states. More recent progress has eliminated the screw worm. The systemic dips have eliminated grubs, and Thiabenzole has taken care of internal parasites. Thanks to these products and the changes they have produced; the south and southeastern states are now our most efficient and most economical producers of beef.

There are many other smaller changes but I believe the four mentioned are the ones that have influenced the beef cattle business to the greatest extent.

The questions we face today are what changes are most likely to come or what changes must come for the beef cattle industry to make progress in the next thirty years.
I believe it is safe to say that the cattle industry is in a state of
confusion. The pattern of the future is clouded. We are trying to decide
why our great cattle industry is not more profitable.

It is true that the cattle industry is the great success story of
American agriculture. It is also true that along with some other foods,
we have overproduced the market. We have a market for everything we
produce, but not a profitable market because of a little overproduction.

Beef producers have been disappointed in the action of the cattle
market during October and November. However, when you read the total
red meat production figures for October you find that we produced three
billion ten million pounds of red meat. This is two percent higher than the
next month of record, which was last January. October was the first month
to ever produce over three billion pounds of red meat. October was also a
record month of poultry production. The consumers never had it so good.

Cattle slaughter for October was three percent higher than last year
and five percent higher than September. Actually, when all these facts are
considered the cattle market has not behaved too badly.

Now to look ahead!

There are two words that we must accept.

Progress and Competition.

Progress is apparent in every business. It has to be; wherever
there is lack of progress there is a sick business or industry.

Progress has been very rapid because of the great research effort.

Dr. Wm. Beeson of Purdue University stated it very well at Indiana Cattle
Feeders' Day. He said, "Research is the way to permanent progress."

Progress should be more rapid in the next thirty years. We must keep abreast or be swept aside.

Competition is a tougher problem.

We must compete with other areas that perhaps have distinct advantages, such as weather. We must compete with other countries of the world, where labor costs are lower. But most of all the beef cattle industry must compete with all other foods.

Beef is the most highly accepted food available. Beef enjoys the highest price level of any food. Beef receives almost fifteen cents of every food dollar the consumer spends. Every other food or food product would like to capture part of this popularity of beef.

People can only eat so many pounds of food per year, so this competition gets to be deadly serious.

Beef is recognized as the number one food. The Cadillac of foods to the American consumer, everyone eats beef to the limit of his ability to purchase it. This status of number one food has two important aspects. First: This is the reason beef is overproduced; everyone wants to raise beef. Second: The beef industry is on the food throne, so everyone wants to unseat the king of foods.

Poultry and fish are just as good protein as beef, but the American public has the money to buy what their tastes dictate. This may not always be so.
In my opinion this is the area of competition which is the greatest threat to the cattle industry. The industry must become more efficient or beef will not always be on the throne.

Poultry is our biggest competitor. Poultry converts feed to meat many times more efficiently than beef. Because of their efficiency their cost per pound of meat produced is much lower. Broilers and turkeys used to be a Sunday or holiday treat. Now they are the best buy a housewife can make. Day in - Day out the housewife's budget leans toward poultry.

Because of this efficiency, each year they take a bigger share of the American appetite. The industry is now producing six pounds of chicken and turkey to every fourteen pounds of beef. Stating it in another more graphic manner is that out of each one hundred pounds of beef and poultry sold, chicken and turkey sell thirty pounds and beef sells seventy pounds.

I believe that the dramatic progress of the poultry industry is what the beef cattle industry must strive for. I do not mean the integration and ownership by vast companies, but I refer to the efficiency of converting from one to two pounds of feed to a pound of poultry meat. The cattle industry is converting at a rate of six to ten pounds of feed to a pound of beef. This is too high a cost of production.

The efficiency of poultry is partly from superb nutrition but primarily from breeding better birds. The industry has not only developed various strains for their ability, but for their meat content compared to
body structure. The broad breasted turkey with an extreme amount of white meat is a wonderful example of the progress of what can be done with research. The great progress of poultry is proven by their increase in consumption by tenfold, compared to beef's doubling. This efficiency is the direct result of intensive hybridization.

Broiler and turkey producers have the choice of buying either eggs or chicks or poultys from several different hybrid companies. These companies guarantee their birds to grow and develop into top quality dressed birds at a finished weight within two-tenths of a pound in a given number of days from hatching.

This broiler or turkey producer has a tremendous advantage over a cattle feeder, because of the facts available to him. He can estimate his costs very closely and dependably year after year. The cattle feeder can either go to a certain rancher or to some type of market to buy his feeders. He has no idea of how the cattle he buys will respond to feeding. His only judgment is eyeball judgment. He cannot forecast his daily gain, because this will vary with different bunches of cattle as much or more than one half pound daily. Consequently, the cattle feeder has only partial control of his business. His gain cost may vary three to five cents per pound in either direction from his projection.

This is very serious. The poultry industry knows what it is doing. The beef industry works only on averages. The poor inefficient animals in every herd dragging down the good animals. I do not believe any industry today can exist on averages for a long period of time.
Therefore, I am saying that the cattle industry must change and copy the poultry industry. We must make this change soon or beef will continue to suffer from poultry competition.

How can the cattle industry meet this change?

In our feedlot we get average daily gains on steers of between 2.6# and 3.0# per head per day. In college tests where all cattle are individually weighed, there are always some 4# daily gainers and occasionally a 5# daily gainer. Then there is usually a 1 1/2# and a few 2# daily gainers. This produces an average gain for the pen of 2.5# to 3.0# per head per day. This illustration occurs in almost every college test with all breeds of cattle. The basic problem of the cattle industry is to eliminate the slow gainers. The next step is to identify the high gainers and raise nothing else.

If we could eliminate the slow gainers our average daily gain would easily increase to 3.0# to 3.5# per head per day. This would reduce our gain cost about three cents per pound. On a per head basis it means twelve to fifteen dollars per head. Reflecting this back to the yearling steers which we buy, it would mean about $2.00 per cwt. A cattle feeder could reflect this entire amount to the range producer and still have exactly the same profit or loss he now has. If the feeder market had been two dollars higher this fall no one here would be complaining very much.

I have explained in detail how important it could be to range cattlemen if they would improve their cattle.

Cattle feeders buy two raw materials - feed and feeder cattle. They put the two together with some know how and produce finished beef every
day of the year.

We have excellent control in our feedlot. We use a nutritionist who is thoroughly familiar with least cost ration planning and has access to a very large computer center. We use every known antibiotic, additives, hormones, vitamins, etc. We also keep our records at a computer center operated by the Greeley National Bank. In other words, we take maximum advantage of every bit of knowledge available to a cattle feeder.

With all this equipment, know how and skilled personnel, we cannot consistently estimate the cost of finished gain on steers within three cents a pound. The reason is because we have no positive way estimating the performance of any bunch of cattle. We are back to the averages, some good and some bad.

This is the advantage in the poultry industry. They know what they are doing. The cattle industry is still eyeballing and operating at all levels on averages.

In my opinion, this is the change that must be made in the cattle industry in the immediate future. I have several friends in the poultry business. The question they ask me is, "When is the cattle industry going to make beef competitive with poultry?" They then say that if beef were more competitive their expansion would stop.

This change I am talking about is more than a change, it is a revolution. Cattle must be bred and sold on a performance basis like hybrid seed corn. Some people want silage corn, so they buy a certain
numbered variety. Other people need an early maturing shelled corn; they select a different number, very possibly from a different company. This is what I have in mind for the cattle industry. I feel so strongly this way that I would project that until this is accomplished, the cattle business at all levels will continue in the doldrums unsatisfactory to everyone in it.

The Pioneer Seed Co. of Des Moines, Iowa has recently purchased Hereford, Angus, Charolais, and Red Angus cattle. They say they intend to add Brown Swiss and Braham. The Dekalb Co. is considering some similar program. The W. R. Grace Co. recently bought American Breeder's Service for the same purpose.

Gentlemen, the cattle industry must produce hybrid cattle. Please note I did not say crossbred cattle. I said hybrid cattle. We need three and four way cross cattle with known backgrounds.

In order to accomplish this type of cattle production some ranchers are going to raise the basic seed stock of all different breeds. Other ranchers will buy the basic seed stock cross them and raise replacement cattle for the rancher who wants to raise feeder cattle. The rancher who sells feeder cattle will purchase females that have either two or three blood lines. He will use a bull that probably is a single breed, thus producing a known performance type of feeder cattle.

This change is a radical one. It will not happen quickly. We have a start but the industry must get behind it. The cattle industry has been floundering for several years because it has refused to face this change. When the cattle industry makes up its mind that it must change and
everyone starts to put total effort into it, then miracles will happen.

In summary, I would like to re-emphasize the great opportunity the cattle industry has. Our product, beef, has the public acceptance of the number one food. With better efficiency we can positively continue to hold this favored spot. We can produce an even better product and possibly sell them cheaper and still make more money for the cattle industry because of the efficiencies gained.

Progress and Competition will solve our problems.
CATTLE FEEDING A DYNAMIC INDUSTRY

Cattle feeding as we know it today is a relatively new industry. Cattle feeding or cattle fattening started in the Midwest Cornbelt a hundred years ago. Cattle were used to eat all the forage crops grown on the farms, plus corn to fatten them.

The animals were four to six years old before they were slaughtered. Fat was a salable, useful and necessary product. The cattle were used to balance the feed supply. When the corn crib was empty the cattle went to market, often weighing from fifteen to eighteen hundred pounds each.

After World War I and the Great Depression and drouth years of the early thirties, cattle feeding began to change. Like all major changes, it moved slowly at first but gathered momentum each year. The growth and change of the cattle feeding industry in the past ten years is the glamour success story of American agriculture.

Actually, cattle feeding started moving rapidly about twenty years ago. January 1, 1949 showed about three million cattle on feed. World War II was over. The technology that had come from the war effort had started to move agriculture forward at a faster pace. New and better equipment was available. Hydraulic power was a war development. This single innovation has changed farm machines and reduced the need for labor more than any other mechanical development. The agricultural chemicals D.D.T., chlorodane and others, plus the antibiotics penicillin, aureomycin, terramycin, all came from the rapid technological breakthroughs which were speeded up by World War II.
January 1, 1959 showed six million cattle on feed in the United States. Double the number ten years before. The industry was moving rapidly. The large western feedlots had emerged with automated feed mills, trucks, and labor saving equipment. The question of the day was can these new modern feedlots with large investments in equipment successfully compete with the established farm Cornbelt feeder, who owns his farm and feeds his own feed?

Today, January 1, 1969, we have approximately twelve million cattle on feed. The number has doubled again in the past ten years. Obviously these facts justify the title "Cattle Feeding a Dynamic Industry."

Before looking into the future, the rapid growth of the last ten years should be reviewed. Why has this growth happened? What were the basic causes for the growth?

The most basic and important fact has been the acceptance of beef by the American public as it's number one food. Ten years ago, average consumption of beef was ninety pounds. In 1968, consumption will be a whopping one hundred nine pounds. The greatest consumption ever realized and at higher prices than most years of less consumption. The phenomenal demand for beef has set the stage for the great growth of the cattle feeding industry.

There have been many important changes and improvements in the cattle feeding industry during the past ten years.

We have seen the universal acceptance and use of feed additives. A tremendous use of modern vaccines and antibiotics. Preventative medicine has made it possible to have large concentrations of cattle in a feedlot. The
elimination of parasites, ticks, screw worms, lice and many others has not only made cattle feeding more successful, but it has made possible the production of cattle in many areas of the U. S. that could not successfully produce cattle without them. If this expanded production of cattle in southeastern United States had not occurred, it would not have been possible for the American public to enjoy one hundred nine pounds of beef per capita last year.

During this past ten year period, a major change has occurred in the marketing of cattle. The central market system has gradually lost both fat and feeder cattle. The direct marketing of cattle from feeder to packer has grown rapidly. The large feedlots, with cattle to sell every week of the year, have found the direct marketing method to be the most efficient. The livestock auction markets in every area have shown substantial growth. Today the bulk of stocker and feeder cattle are marketed through the auction markets.

Most of the additives, antibiotics, and systemics were developed prior to the last ten years. However, we have greatly expanded the use of these products. There has also been much more sophisticated use of the various drugs. The wider and more intelligent use of them has been one of the main contributions to extra beef production.

Cattle feeding know-how has spread to every state. Cattle feeder associations have been formed in many states. These associations have rapidly spread modern techniques to all areas. Cattle nutritionists are on every large feed company's payroll. They offer nutritional advice to all their customers. Many of the large feedlots have a nutritionist on a retainer basis. These men have made a great contribution to our current beef supply.
With better nutrition and more cattle going through the larger feedlots, there has been a gradual shift to lighter and younger cattle. Two year old steers have almost been eliminated. Calf slaughter as calves has been drastically reduced. Most cattle today are moving into feedlots as long age calves or yearlings. This shift to younger lighter cattle has been gradual and has not been generally realized. These young light cattle have less waste fat, they convert feed to beef more efficiently, and most of all they are a great stabilizing force to the market.

Probably, the most important thing that has occurred in the cattle industry during the past ten years has been the acceptance that cattle should be raised for the beef they produce. For fifty years or more, we have been raising cattle to win prizes at the shows. There was too much emphasis on how beautiful the animal was alive with no regard for the end product, beef. This problem has been a difficult one for the entire cattle industry, so progress has been slow. Finally, in the past two or three years the cattle industry as a whole is starting to approach beef production in a forward-looking manner.

Looking ahead is always uncertain - drought, wars, depression, government controls and many other problems cannot be fully assessed for that long a period. Therefore, the suggestions of where I think the cattle industry will develop by 1979 are based on the hope that none of these problems will be too severe.

During the next ten years, the shift to larger feedlots that feed cattle all year will be complete. I do not believe these feedlots have to be of mammoth size. Perhaps, the minimum size will be a single one-time capacity of one thousand head. The efficiencies of the large feedlot, the year round
marketing to stabilize profit and loss, the better beef that can be produced because of better nutrition, the better marketing job that can be done with uniform supplies, are the reasons the statement is so positive.

These larger feedlots will be in every state. There will be excellent feedlots wherever there is a good feed supply, and good slaughter facilities. Currently the greatest and most rapid growth of cattle feedlots has been in Texas, Kansas, Oklahoma, Colorado, and Nebraska. Texas in ten years has gone from literally no cattle feedlots to the number three spot in the nation. Texas is now maintaining a steady inventory in excess of one million cattle on feed. They also have less seasonal fluctuation than any other state.

The grain potential of these rapidly growing states still can be expanded. These states are located in the general center of the U. S. where distribution of beef to all parts of the country is the most efficient. As beef distribution is streamlined, these areas will gain more advantage. I believe growth in these states will continue steadily but at a slower pace than the past three years.

The Cornbelt, both eastern and western will continue to feed cattle. The shift will be from hundreds of small feeders to fewer large feeders in the same areas. Cattle numbers will probably not change too much. Not so much growth but a very distinct shifting within the states.

The Western states - California, Arizona, Washington and Oregon - may show some growth. These states are favored states in population shifts. A large part of the population growth of the U. S. is locating on the West Coast. These are irrigated states. Over a period of time more of the irrigation water will have to be diverted to municipal use or at least to
higher priced crops than feed crops. There is no question that in time these states will have to reduce cattle feeding. However, it is doubtful if much of this pressure is exerted by 1979. It appears cattle numbers on feed in these western states will remain about steady with some shift between areas.

The marketing changes that have occurred during the past ten years will continue only at a more accelerated rate. Particularly the marketing of finished cattle direct to slaughter plants. Yield grading has grown rapidly the past two years. Yield grading has made the industry realize what a properly finished beef carcass should be.

The increased use of dual grading, where both quality and cutability are recognized, will have much greater acceptance. With this system there will be more cattle sold at a beef price rather than a live animal price. As superior animals are bred and developed, the only way they can receive the premium they are entitled to will be by going direct to slaughter on a yield-grade basis with premiums for choice two, and three grades.

If ranchers seriously approach the production of beef, they will undoubtedly market their cattle direct, rather than through the auctions. They will have two ways to realize full value for their feeder calves or yearlings. If the rancher really has superior cattle that will outgain, finish rapidly, and dual grade well, he will have no trouble getting any major feeder to buy his feeders every year at a premium price with no marketing expense.

The other alternative for the rancher with superior feeders is to put them in a custom feed lot to be fed for his account. If the finished animals move directly to the packer, then the rancher will get every dollar his cattle have produced.
The changes just discussed will definitely grow each year at a rather slow pace. By 1979, this trend will be well established and obvious to everyone.

Superior cattle with better nutrition will move through feedlots faster and at younger ages. This will mean that there will have to be greatly expanded cow herds in order to produce enough feeders to keep supplying the consumers the beef they demand. Some people are projecting beef consumption as high as 130 pounds per capita by 1979.

I believe the public could and would consume 130 pounds of beef if it can be produced. The key to additional beef production is in the beef emerging states such as Missouri, Arkansas, Tennessee, Kentucky and Georgia. The beef potential of these states is enormous. The rapidly expanding cattle feeding states adjoin these cattle producing states. They complement each other so well that this suggested growth should be greatly expanded.

Cattle feeding has doubled each of the past two decades. Certainly it cannot double again. The population of the United States is growing. The beef appetite has also been growing as evidenced by the record consumption in 1968. The total U. S. cattle population has plateaued at about 109 million head. The last few pounds of beef consumption have been produced by feeding a larger percent of available cattle. The extra pounds of beef have all been produced by adding weight in feedlots prior to slaughter. The cow herds have remained about static. The question of added beef consumption as well as maintaining present consumption will depend almost entirely on the beef emerging states, plus additional cow herds all through the Midwest Cornbelt.
Perhaps during the next ten years there will be some new additives developed. Testing techniques have improved. Drug companies have had a little more encouragement to develop additional products. The Wholesome Meat Act has improved slaughter plants. Today's knowledgeable cattle feeders are better equipped to handle future drug products. Hopefully, these improvements will give some growth and advantages to the entire cattle industry.

The new slaughter plants have been one of the great contributors to the beef business. The specialized beef plant has been the real spur in better beef production and distribution. Now the interest is in so called breaking plants.

In these plants the carcasses are broken into wholesale primal cuts. Some of them go to purveyors for restaurant portion controlled use. There is talk of retail cuts at the slaughter plants, frozen instantly with liquid nitrogen. There are pilot plants of this kind now operating.

These aggressive members of the beef team could have a tremendous effect on the entire industry. Distribution costs of moving retail cuts directly to the supermarket, with no extra freight on bones and fat and savings on wholesale handling costs, could materially effect beef prices to the consumer. It could also effect the growth of certain cattle feeding areas to a great extent. Technological progress is rapid. Anything could happen in this field. There have been several false starts in packaging beef through the years. Hopefully, the mistakes have all been made. This area will be a major contributor to the beef industry all during the next ten years.
The next decade should be the most profitable period ever known by the beef industry. All segments of the industry will share in the growth and prosperity.

The reasons for the optimism.

1. Beef is the most desired food.

2. Fewer more sophisticated cattle feeders will produce much more desirable beef than has been produced in the past. Therefore, with a better product beef will command an even better share of the market.

3. Supply and demand are currently in healthy balance. Conditions are present where this balance should be maintained for many years.

4. Better marketing of live cattle and beef will reduce overhead.

5. Superior cattle will more efficiently convert feed to beef to help reduce costs.

6. New products will still add additional benefits to the industry.

I have had the privilege of being a cattle feeder for thirty-five years. The above comments of the past, present and future are from experience and close association with the industry. We have often spoken of the Beef Team - Rancher-Feeder-Packer-Retailer. The developments through the years have brought us closer together. Again, in the discussion I have stated that one of our great strengths is the cooperation of this Beef Team.
Panel Remarks - W. D. Farr
CIAGA Meeting - San Antonio, December 4, 1969

"Cattle Feeding in the United States -
Its Present and Future"

In the past twenty-five years, cattle feeding has changed from a variable farm use of surplus feed to a highly developed scientific business.

The growth and importance of cattle feeding to the total cattle industry must be illustrated by facts and figures. In 1945, our United States cattle population was 85,573,000 head. Ten years later, a growth of 13% raised the population to 96,592,000 head. The next ten year period on January 1, 1965 showed 109,000,000 head of cattle, which was again a 13% growth. Since 1965, the cattle population has remained almost constant. The gain in total cattle population in 25 years shows a 28% increase.

Please bear in mind that the statistics just presented are the numbers of total cattle, both beef and dairy cattle, of all ages and sexes in the United States. The next set of figures will be the number of cattle in feedlots on January first.

Starting in 1945, we had 4,411,000 on feed. Ten years later, 1955, the numbers had increased 31% to 5,795,000 head. The second ten year period showed an accelerated rate of growth. There were 9,979,000 cattle on feed for a whopping growth of 55% in ten years. The rate of growth in the last five years has continued. Last January first, the number on feed was 12,579,000 head. The twenty-five year growth record shows that cattle feeding has increased 185%, while the cattle population has only increased 28%.
This new dramatic change in the cattle industry of the United States has not only changed American agriculture but also the eating habits of our consumers. In 1944, the average per capita consumption of beef was 55.6#. This year, we are consuming beef at a rate of 110 pounds. We have doubled consumption but we have only increased the cattle herd 28%.

The efficient use of feed for young animals, where feed is converted to beef, has produced this remarkable result. There have been many other side benefits. Cattle feeding has leveled the supply to a relatively constant monthly slaughter. The consumer has the same supply of high uniform quality beef every day of the year.

Dr. W. M. Beeson of Purdue University made two significant statements that best illustrate what has happened to the cattle industry. He said, "Research is the way to Permanent Progress." Certainly the growth of cattle feeding is tied directly to the research facilities of our great universities. His other statement was, "Science and technology are replacing the 'art' and 'eye' of cattle feeding."

This observation is easily proved in the growth of new large feedlots. Texas is the leading state in this new technology. On January 1, 1965, Texas had 488,000 cattle on feed. Five years later, January 1, 1969, there were 1,075,000 cattle on feed, a one hundred twenty percent increase in five years. Even these astounding figures are dwarfed by the October first figures. Texas had 1,342,000 cattle on feed, a forty-eight percent increase from one year ago. Texas is now the number two state in cattle feeding. Iowa is still number one, but probably Texas will pass them in another year or two.
This radical change in cattle feeding is making a new type of domestic beef industry. The whole industry is speeded up. Cattle are slaughtered at younger ages. Most cattle out of feedlots are slaughtered between twenty-four and thirty months, which guarantees high eating quality beef. Calves from the ranches are moved to growing areas, then into feedlots. Oftentimes these movements of cattle are over distances of a thousand miles or more.

This is necessary to maintain a constant beef supply. The consumers don't like to change their eating habits. Beef has positively become their favorite food. They insist on uniform supplies of high quality beef every day.

I have outlined the growth and change in cattle feeding and the consequent change in the entire beef industry. These changes would not have been possible without our modern mass merchandising stores, plus our greatly increased mass feeding of people in hotels, restaurants and institutions. The millions of people who eat lunch at a company cafeteria or a city lunch room are great beef eaters.

Looking ahead to the future of cattle feeding is always a challenge. As you look back and see that beef consumption has doubled and at the same time the retail price of beef has more than doubled, that is a success story that few industries can match. I do not believe that beef consumption will double again in the next twenty-five years, but it will certainly increase from the current one hundred ten pound level to a yearly consumption of one hundred fifty pounds.

If this consumption is achieved it will have to be at continually higher prices in order to encourage production. Farm land that is now
growing wheat, cotton, soybeans will be converted to grass for the breeding herds or to feed grains to support the feedlots. I believe these changes will come. I hope they come gradually and constantly. This will encourage a more stable market and a healthy cattle industry.

I firmly believe that the whole cattle industry has a bright future. The cattle feeding segment will continue to grow and make further efficiencies. Cattle are responsible for forty percent of American agricultural income. In the years ahead, this percentage of income should increase to at least fifty percent.
The Western Livestock Journal African Livestock Study Safari, consisting of fifty-seven men and women, landed at Jan Smuts International Airport, Johannesburg, South Africa on February 27th, 1968.

The jet air trip had taken fourteen hours from Amsterdam with one stop at Accra, the capital of Ghana. Jan Smuts airport serves both Johannesburg and Pretoria, the capital of South Africa.

This trip was the third WLJ tour that we have enjoyed. The group stays in the main cities, as well as many small towns of the country being visited. Most of the days are spent visiting ranches or farms. Lunch is always served on the ranch or in a neighboring town. There are always interpreters, local government officials and frequently U. S. Agricultural Attachees, or a man from the U. S. Embassy staff who accompany the study group. I am making this point in detail, so that you will realize that the opportunity to get acquainted and make friends with strangers in their own backyard is rather unique.

There are no strangers among cattlemen. We have a common interest and the warm friendliness and hospitality overwhelms you. South African ranchers all speak English, so this particular visit was even more rewarding.

We spent a month in South Africa, Kenya and Uganda. In South Africa we traveled in two large air conditioned buses, plus one 500 mile train trip. In Kenya and Uganda we had eleven Volkswagen buses.
Our introduction to South Africa was an all day orientation seminar at the University of Pretoria. Dr. Jan C. Bonsma, plus two able assistants, briefed us with full information about South Africa.

Dr. Jan Bonsma is known the world over as one of the truly great authorities on cattle. One of the newly developed African breeds has been named Bonsmara in his honor.

South Africa is probably the least understood and most controversial country in the world. I will attempt to relate to you what we saw and heard about one of the world's most beautiful and productive countries.

South Africa lies 25° to 32° south of the equator. March is equivalent to September. The pastures were mature, corn was starting to dent, potatoes were being harvested, the calves were ready to wean, fruits of all kinds from pineapples to pears were being harvested, flowers of all varieties bloomed in profusion.

The scenery all over the Republic of South Africa is superb. From the beautiful Drakensburg mountains which tower up to 11,000 feet down through the great grassy plains known as the veld to the beautiful Cape of Good Hope cannot be equaled either in variety, productivity, or in natural resource wealth.

The Portuguese navigator, Bartholomew Dias, discovered the Cape of Good Hope in 1488. All of the European countries with trading fleets were sailing to the East Indies for silk and spices. After the decline of Spain and Portugal, Holland's trading fleet became the largest in the world.

In 1652, Jan van Riebeeck established the first settlement of the Cape. This is now the beautiful city of Capetown. The purpose of the settlement
was to establish a refreshment center for the trading ships of the Dutch East
India Company. There are no harbors on the west coast of Africa. By the
time the ships reached the Cape, they badly needed fresh water, meat,
vegetables and oftentimes repairs.

When the Dutch arrived, the only native Africans were a small
settlement of small people which the Dutch called Hottentots. For about
one hundred fifty years the Dutch ruled the country. When the French took
Holland, the British occupied the Cape. The Dutch or Boer's, as they became
known, did not like the British rule, so in time these Dutch treked north and
northeast to develop the interior and find a home where they could rule
themselves.

This trek period is almost identical to our covered wagon opening of
the west. The people who were willing to make these treks were god fearing,
self sufficient, strong people. As they moved northward they encountered the
native Africans. On the eastern coast near Natal they had many encounters
with the Zulu's and killed hundreds of them. Again, the resemblance of the
two countries. We literally eliminated the American Indian. Actually, when
the Dutch met the natives, the natives were being driven south by the slave
hunters who were mostly Arabs. The point to be remembered is that as far as
South Africa is concerned, the country was not taken from the natives. These
original dutch people are now called Afrikaners and the British are called
English speaking.

The British and Dutch lived together and fought back and forth for about
one hundred years. Finally in 1909 the Union of South Africa was formed.
With a unified government they started immediately to set aside African
Reserves and segregation began.

Today the Republic of South Africa has an elected parliament which has been dominated for twenty years by the Nationalist party. Only whites can vote; sixty percent of the whites are Afrikaners and forty percent are English speaking.

There is a population of 17,000,000 people consisting of 11,645,000 Africans, 1,648,000 Colored, 522,000 Asians, and 3,250,000 whites.

This population is obviously divided by race, color, religion, culture, background and most every other way. There is very little in common interest and therein lies their problems.

The majority of eleven and a half million Africans come from hundreds of tribes with different languages, different customs, different sizes from the small pygmies to the very large handsome African. They are all classed as Bantu, which simply means people.

The one and two thirds million colored are the mixtures of black and white that have increased rapidly since the early days of the Dutch East India Company. The half million Asians are largely from India. They have been the storekeepers, the merchants and traders.

The ruling minority of three and a quarter million Afrikaners and English speaking have chosen to stay where they are living in one of the world's most beautiful and productive lands, defending themselves against both their black countrymen and world opinion.

They are anxious to talk to you about apartheid. They like to refer to it as separate development. They justify it in many ways. The Afrikaaner is a descendant of a dutchman hundreds of years ago. He has no place to go if he leaves South Africa. This is his home. His forefathers blazed it out of
the wilderness the same as our forefathers did. He has a fierce pride in his accomplishments.

The English speaking part of this minority has the same reasons. They like the way of life that they live and their business success. They can return to England or perhaps Australia or Canada. However, they are usually the business men. They discovered and developed the great gold production. Seventy-one percent of today's gold production comes from South Africa. Cecil Rhodes and others developed the great diamond mines which supply seventy-five percent of the world's diamonds. Many other examples could be mentioned.

Ironically this government that the world disapproves of probably has the world's soundest economy at the present time. Their debt structure, their world trade, their balance of payments, and the soundness of their currency in world finance cannot be matched by any other country.

These South African ranchers will advise you that they don't like apartheid but it is the only way they can possibly live with this great black horde of population. They firmly believe that they can make it work. Some say they are sure that it will work for a hundred years and in that time other solutions will be worked out. These same ranchers told us that our system will not work. That we will have race wars and eventually the United States will be divided into two countries, one black, one white.

Believe me when you sit with a South African rancher and enjoy a scotch and soda, then an evening meal, and have him relate some of the facts that I have mentioned, and then ask, "Do you have any suggestions of how we can do it better?" It makes you think.
These people look to the United States as the country most like them. They feel that we have many mutual problems, but we are approaching them differently. Time and history will prove which is the better way.

The last ten days of our trip was spent in Kenya and Uganda. These are both countries where the Europeans and Asians are being forced to leave. Africa for Africans is the slogan. Most of the rest of the many African nations are following this same pattern.

Uganda is an interior state which has not had much development. Our whole party were honored guests of the government officials of Uganda at a cocktail party held in the beautiful lobby of their state capitol. Every elected official but one attended. They were all very black, but very intelligent and gracious. They are now starting to develop their country quite rapidly. The United States and Great Britain are both very active in this development program. Because Uganda is an interior state, the white population has never become significant.

Kenya was a British Crown Colony and had a high population of British. The great Rift valley and much of Kenya has tremendous food production potentials. This country has roads, railways, bus lines, nice towns with small comfortable hotels. The British have been developing it for over one hundred years.

We visited a rancher who had arrived in Kenya in 1910 to start his ranch. His son was born on the ranch, so the son can qualify as a citizen of Kenya, the same as a black African. His neighbor down the road bought his ranch 30 years ago, but his son was born in England, so he is forced to
sell his ranch to the Kenya government and leave the country. The son who is about forty-five is going to Australia to begin a new life. The father is returning to England where he doesn't know anyone. He is a fine old gentleman; very bitter about the turn of events.

The serious problem of the young white rancher who is the Kenya citizen is not generally considered. Most of the Europeans are forced to leave. Less than one percent will be left. What kind of life can this young English rancher and his family have with no friends, no schools, no universities, no social contacts. They are inclined to think the future is not worth staying for.

Kenya has an elected government. Kenyatta, a man about seventy years old, is recognized as the best African president of any country. He has the respect of the world. Everyone worries about what will happen when Kenyatta is gone. The British government has actually loaned Kenya tens of millions of dollars to buy the land from the Europeans.

We saw large areas where the redevelopment was taking place. The government opens Land Development and Resettlement offices in each area. The land is sold to an African in ten acre units. He has a thirty year payment contract. This program is now in its sixth year. The experience to date according to our U. S. field men has not been very satisfactory.

There are two reasons for the many problems that have developed. First is the fact that black people don't want to accept responsibility. The plan was that the Africans had never had the opportunity to accept responsibility. We talked to a former professor from Oregon State, who is now on the faculty at Nakuru University. He stated that currently he is confused about the ability
and/or desire to accept responsibility. These people have never had to budget their money. They were told what to do every day. They never had to plan anything. Apparently many of them now plainly say they don't want this responsibility.

The second problem is perhaps more serious than the first. Because there was always a plentiful labor supply, and because this labor took a tremendous amount of supervision, the white man has never done any hard labor in Africa. The native African resents this. When he goes to school and gets a little education, he immediately wants to get a white shirt and he doesn't want to work any more.

I spent a half day with a former county agent from the state of Washington. He is in Kenya working for the U. S. State Department. He is in charge of a program to train about five hundred young men to be equivalent to our assistant county agents. These young men are supposed to supervise and help the resettled African natives.

They get their education satisfactorily, but as they go out in the field to supervise they feel they have white status. Therefore, they should have higher salaries, automobiles, radios, etc. Because they do not have enough money to accomplish all these wishes, they become unhappy with the whole situation.

The program is in enough trouble that the government has started a new concept. About eighty farms are put together as a unit and operated as a co-op. Each farmer owns his land, but they pool their labor, equipment, and livestock and share the profits. The real interesting part of this program is that the
black Kenyatta government is hiring Europeans to manage these co-op units.

After seeing the Kenya problems, you wonder whether perhaps the South Africans are all wrong.

An English rancher outlined the problems this way. It took seven hundred years to develop Europe. It has taken three hundred years to develop the United States. Russia under communism and a better start has spent seventy-five years. The developing countries all over the world are trying to develop in twenty years. The problems of most of these countries are so involved that it is bound to take a much longer time.

I believe this is the problem of the world today. Every country wants all the advancement immediately. In our country every citizen wants everything now. Our racial problem is largely caused by political promises of moving faster than it is possible to change all of the minority problems overnight.

I am not condoning apartheid, nor saying South Africa is right and we are wrong. We had the privilege of seeing the countries and visiting the people. I no longer condemn them.

I further believe that we must let all developing countries develop by themselves as much as possible.

In this week's news was an article telling how both Nigeria and Biafra were unhappy with the United States. They thought we should be minding our own business.

If we don't change our policies we will be guilty of contributing to the heartaches of future generations in these developing countries. The many
different dislocations of people, bitterness within groups of people, and poor government policy is so obvious in Africa.

Perhaps a few pictures of South Africa will help give you a feel for the country.
The title of my paper is obvious to everyone. The cattle industry is very important to Weld County, the state of Colorado, and the nation. Beef is the number one food choice of the American people.

However, tonight I want to exercise the speaker's right to change the program. The new title will be "A Stake In Your Future". This paper will deal with water and air pollution, environmental and land use problems.

My knowledge of the subject comes from serving as a member of "The President's Water Pollution Control Advisory Board." This board consists of nine members, eight men and one woman, who are appointed by the President to serve for three year terms. The board must meet at least quarterly and most meetings are held in the areas where problems have developed.

The meetings usually last four or five days with sessions running from eight to fourteen hours daily. I spent the last week of March in San Francisco attending a joint meeting of our board, plus the President's Air Pollution Board. Mr. Wm. Ruckelshaus, Administrator of the Environmental Protection Agency, is chairman of both boards. Either he or his Assistant Administrator always meet with us. Bill Ruckelshaus attended the California meeting.
A review of the California agenda will give you an idea of how the boards operate. Monday morning we were briefed for three hours, then taken by bus to the airport. A chartered 737 airplane took us on an overflight of California. Each board member had a window seat. Three qualified men identified the areas and described the problems.

The trip started over the low flat tidelands of the Sacramento River. Next the tremendous productive areas of the San Joaquin River Basin, then over the Sierras to Lake Tahoe; down over the entire length of the great central valley of California. We observed the large irrigation projects and the aqueducts carrying water to Los Angeles. The plane was refueled in Burbank and we finished the day by flying up the coast line. The urban sprawl, the erosion caused by large construction areas, the diversion of prime agricultural lands into housing, the nuclear power plants using ocean water for cooling, and the leap frog development of areas without planning were all very graphically shown and discussed during the flight.

Tuesday was a day of public hearings in San Francisco. Wednesday the bus left the hotel at 6:30 a.m. to spend the day in Los Angeles conducting public hearings. Thursday and Friday were executive sessions in San Francisco.

My new topic "A Stake In Your Future" is well defined by quoting from a speech of Wm. Ruckelshaus. "It will not be easy to change our habits, some of which have gone unquestioned for generations: throwing
things away instead of repairing or recycling them, dumping our wastes into the water and air, and wasting irreplacable resources. It is up to Americans of this decade to develop a new pattern of environmental management. We must become the first generation to work with nature instead of against her. There is a generation of hard work ahead."

The mandate of the EPA is to define environmental quality standards and to provide leadership and assistance to state and local governments in establishing programs designed to achieve and enforce these standards. In particular, the Clean Air Act as amended in 1970 and the Federal Water Pollution Control Act provide the EPA with the authority and responsibility to restore and maintain the quality of our air and water resources.

Water pollution starts at the headwaters of a stream. You are all familiar with how we have abused our own Platte and Poudre rivers. Have you ever thought of how this pollution compounds as it moves downstream? The people who live in New Orleans, or Passiac New Jersey, or the Chesapeake Bay area really bear the burden of terribly polluted water. They are the people who realize that we must have action now or it will be too late. Cities and industries in every state have passed the pollution buck for years but would not move until the Federal Water Pollution Control Act was passed in 1965.

Colorado has passed both water and air pollution laws that are as strong or stronger than the federal laws. Our state is starting this tremendous
job of cleaning up our environmental surroundings. EPA enforcement has put a cease and desist order on the Greeley Great Western Sugar factory. Unless the company stops polluting the Poudre River, it will not be allowed to operate. The City of Greeley is under strict surveillance with sewer plant problems. In fact, until the new lagoon facilities are completed, so that the packing plant wastes can be removed, the City of Greeley is breaking the law almost daily.

Our nation and its' people have finally realized that clean water is very basic to our existence. Both Houses of our current 92nd Congress have passed a new Clean Water Act. The legislation is now in conference committee. The exact details will not be known until the bill comes back for final approval. However, several items are definite; the cost will be more than twenty billion dollars. By 1981 or 1985 every stream in the U. S. will have to meet almost pure water standards. Presently the City of Greeley is only required to remove 80% of the BOD demand from its' effluent. When the new Clean Water Act is passed, Greeley will be forced to build additional more sophisticated sewage treatment facilities in order to meet the new standards.

By the year 2000, many large eastern cities will be forced to use recycled water as their domestic supply. The scientific knowledge of making recycled water safe to drink is available today. However, H.E.W. has a current large research project studying water hygiene. What happens to
water when it is recycled over and over again? Maybe it is safe but does it lose some of its' values? No one knows. Until recently no one realized that great cities would be faced with these grim realities.

Water pollution cannot be cured overnight. You have all read of the serious pollution of the Great Lakes. Lake Erie is in very serious trouble. Lake Michigan is degrading yearly with the tremendous pressure of Milwaukee, Chicago, and the great industrial areas on the south end of the lake around Gary, Indiana. I mention Lake Michigan to make a graphic point. With the inflow into the lake and the outflow it takes 100 years to exchange the entire body of water. The lake is now badly polluted. If all pollution stopped tomorrow, Lake Michigan would not be clean for thirty years. This is why we must act now in the next few years on almost a crash program. Again, Colorado is fortunate; we will see almost immediate results in our streams and lakes but it will take many years before these results will be evident in the Mississippi River at St. Louis.

One of our Water Pollution Board meetings was held at Cape Hatteras. Here the polluted water coming into the bays have contaminated all the shellfish. Citizens can no longer go to the shore for a weekend and gather their own oysters or dig clams. The heavy use of detergents has increased the phosphate content of the river inflows. Phosphate is a primary fertilizer that was deficient in the sandy bay soils. When the bays were fertilized,
great growths of various types of algae have invaded large areas. This growth has spoiled much of the bays for water sport activities. When you visit this area and see the problems, it is very easy to understand why the eastern United States has suddenly become so interested in improving our total environment.

Last June, the Board met in Honolulu. The islands have many serious pollution problems. The sugar companies dump all of the sugar cane refuse known as bagasse into the ocean along with all of the rest of the refuse. The City of Honolulu pumps several millions of gallons of raw sewage into the ocean every day about a quarter of a mile in front of Pearl Harbor. The United States Navy maintains a large fleet in the harbor. The larger ships are equivalent to a small city. There is no treatment of any kind on these ships or any other ships using the harbor.

The islands are controlled by a few companies. Politically no governor of either party could get any action to start to improve these problems. Our week-long meeting served as a catalyst to exert the federal authority of 180 day cease and desist orders from E.P.A.

The sugar companies have all agreed to completely eliminate ocean dumping by January 1, 1974. The City of Honolulu is committed to build a 100 million dollar sewage treatment system. The Navy is starting a program to build treatment plants on their largest vessels. The smaller
ships will have to build container tanks. The ports will need to develop facilities to pump these ship container tanks into receiving tanks, then into the city systems.

The new Clean Water Act presently before Congress will require all ships, including small private yachts and houseboats, to have either sewage treatment equipment or container tanks on board. This will apply to every port and every ship from all over the world that docks at a U.S. port.

I have only touched on a few of our water pollution problems. The tremendous logistics problems of the building and construction that lie ahead in order to have Clean Water by 1985 are overwhelming.

As the Water Pollution Control Advisory Board has worked with water problems, we invariably come face to face with land use problems. The Air Pollution Board has had the same experience, only to a greater degree. This was the reason for the joint meeting of the two boards in San Francisco. The objective of the meeting was to examine the difficult issues of the impact of land-use on environmental quality with a view of merging environmental concerns with the land-use development process.

What is the best use of land? How dense should human settlements be? What is the optimum mix of housing, transportation, recreation and commercial facilities? What should go where?

Are certain areas already saturated, so loaded with industry and commerce and transport activity as to constitute ecological disaster zones?
Should population be dispersed? Should some areas be kept forever wild and undeveloped?

Colorado's Senator Allott and others have introduced legislation to establish national land use policy. Congressman Aspinall has introduced very far reaching legislation to control the future use of all federal lands. Our Colorado legislature has wrestled with a land-use law all during the session. There is no way to prevent land use planning. The only question is will the legislation be rational and well thought out or will it be impulsive and charged with emotion? Will the legislation leave the major role to the states and local communities or will it take a more drastic national form? Probably it should be a team effort federal, state and local.

Our country is two hundred years old. Our population has grown to 210,000,000 people; by the year 2000 it will be 300,000,000. 70% of our present population lives on only 3% of the land. We only have 755 million acres of land and about one third of this is still owned by the federal government. The location of new highways, airports, recreation areas all influence the use of our land. You have all seen new installations of these facilities that obviously were not planned with any thought given to the environmental impact. Our nation, our states and communities must move forward with land use planning.

We must have great cities for our commerce to revolve around. The question then becomes what kind of a city do we want? New York is
often called a city of concrete canyons. The density of population and economic activity that is found today in Manhattan clearly has been possible only because it is served by the most complete rapid transit system in the world. For example, 4,139,000 people daily enter the New York Central Business District. Seventy-nine percent of them by public transportation. On the other extreme, Los Angeles has no rail rapid transit system and therefore relies almost entirely on the automobile for transportation. The low one story buildings and the great acreages within the city do not lend themselves to public transportation. Only 8.5% of their workers use any form of public transportation. The Los Angeles smog, plus the highway accident rate are specific problems created by this type of sprawling city.

One of the basic problems is our archiac local governmental structures that originated years ago before good communication or transportation were available. There are more than 80,000 administrative units of local government in this country. We have over 3000 units of county government. During the last three decades, half of these counties have lost population. In 1970, approximately 500 of the 3000 counties contained 3/4 of the population of the entire United States. Surely some of these governmental units need to be consolidated. Not so many years ago, we successfully did this with our Colorado school districts.

The state of Colorado is growing twice as fast as the nation. Our northern Colorado area is growing four times faster than the rest of the state,
so we have many of these environmental problems here at home. Finally, we have established a joint planning commission between Weld and Larimer Counties. The question of whether the cities and the towns should dominate or whether the rural people should prevail is still being argued.

The Colorado Land Use bill before the legislature has been a hot issue over the argument of whether the authority should rest with the County Commissioners or whether a state land use commission should govern. I believe it is evident that good environmental planning must be done on at least a regional basis.

There are some great examples of successful regional efforts where strong leadership has prevailed. The City of Nashville, Tennessee and Davidson County are operated very successfully by the Metropolitan Government of Nashville - Davidson County. The Metropolitan Council of the Twin Cities governs Minneapolis-St. Paul and an area of 3000 square miles containing more than 2,000,000 people. The Tahoe Regional Planning Agency governs an area of 335,000 acres in two states and seven counties with half of the land owned by the federal government as National Forest Land. The whole area is joined into a contractual regional plan where the Planning Agency has complete jurisdiction over a very fragile area that could easily be ruined forever. These regional governments and many others are setting a precedent that all areas must soon follow.
The challenge for the balance of this century is to develop a new America. During this period the total U.S. facilities plant will have to be replaced or duplicated. This can be done efficiently, safely, and within acceptable limits of conservation and environmental quality, if we institute and effectively implement sound land reform measures, and if we gain a sound knowledge of the earth and its' resources prior to the decision making.
THE BEEF DILEMMA

We are starting the year 1975 with about 30% less cattle in the feedlots in the United States than we had one year ago. The feedlot mix or consist is entirely different than the cattle we have usually had in the feedlots. The reason for this is the price of grain. The great majority of the cattle are older cattle with a minimum number of calves having been placed on feed. The point that I want to make is that because of this feedlot mix we find that we will have a plentiful supply of fed beef for the first quarter with a much reduced supply after that.

Cattle feeding, as we knew it up until 1974, was based on relatively low grain prices. Now we have relatively high grain prices. For the unseeable future, grain will continue on the strong side. A cattle feeder purchases two raw products, feeder cattle and grain. He combines the two to produce finished cattle which make our table beef supply. With feed high, feeder cattle have to be cheaper because the consumer will only pay so much for beef.

The dilemma for 1975 is what will happen during this calendar year. I have already commented that there will be a plentiful supply of fed beef for the first quarter. There will be a material reduction of slaughter of cows, bulls and non-fed cattle for the first half of this year. It is very difficult to predict what will occur in the second half of 1975. The key to that situation lies entirely in the weather. There are large inventories of cattle that if a dry summer occurred, might need to start to move to market in the middle of the summer. If a normal or wet season occurs, these same marketings would be delayed until fall. The
weather will have a tremendous influence on a crop of wheat that will be harvested in June and July. The same weather will affect the 1975 corn crop. Obviously, the price of wheat and the price of corn will affect the price of feeder cattle and the marketing of feeder cattle in the fall of 1975. If we are fortunate enough to get a moderately increased grain crop, then the price of feeder cattle will increase and there will be very little slaughter of non-fed or grass beef. On the other hand, if a dry summer should occur and crops not be so good, then a reoccurrence of the 1974 situation would undoubtedly be true.

Personally, I believe we have gone a long way in liquidating our cattle problems in 1974. I expect better cattle markets all over the world in 1975.
WYOMING BANKERS SUMMER AGRICULTURAL MEETING
SARATOGA, WYOMING, JULY 12, 1979

COMMENTS: WEATHER - TRIP
SARATOGA - MCGILVAINES
CHARLEY - GEO.-PRES. WYO. BANKERS
ENCAMPMENT
POWELL - 4 OR 5 YEARS AGO

AGRICULTURE IN TOTAL IS IN A STRONG POSITION. LIVESTOCK IS VERY STRONG - CATTLE AND SHEEP.

QUESTION MOST OFTEN ASKED OF ME-----ARE CATTLE VALUES GOING TO HOLD?
ANSWER IS YES.

REVIEW:
1. CATTLE LAST WEEK 30% HIGH THAN 1978
2. DOWN $10 FROM MAY 1 BUT A GOOD MARKET
3. BAD BREAKS - PUBLICITY - TRUCK STRIKE
   CORN BELT PLANTING NOW #4

FUTURE - CATTLE ON FEED - 23 STATES 7/19
   DOWN ABOUT 5% - HEAVIER WTS. EVEN
   CATTLE INVENTORY - WEEK LATER 7/25
   COWS - CALF CROP - FEEDERS AVAILABLE

CATTLE ARE BULLISH - NUMBERS DOWN

SLOW RECOVERY - HIGH COST COWS, FEED, INTEREST
LAND - GOOD GRAIN, SOYBEAN PRICES
PLOW LAND NOT SEED TO GRASS
MARKET PREDICTIONS - SUMMER - FALL

HOGS +20% - 350,000 DAILY - 8M MONTH
BROILERS 85M WEEKLY
PLENTRY OF ALTERNATIVES
PRICE STEADY UNTIL LATE
FEEDERS GOOD BUT NOT HIGH ENOUGH TO PAY OUT
GRAIN - SOYBEANS - ENERGY
PERMANENT
CORN 325
WHEAT 450 - 475
SOYBEAN 7 - 8
FACTS

1. 2 MILLION MORE ACRES SOYBEANS THAN CORN FOR GRAIN
2. SOYBEANS 71.7M ACRES + 12% + 22% 1977
3. CORN 79.8 - SAME LAST YEAR 69.5 FOR GRAIN
4. CORN - SORGHUM - OATS - BARLEY DOWN 4%
5. DES - 7/20 - PETITION 120 DAYS - COST RANCHER
6. FEEDER GRADES - GOOD
7. CLOSED PLANTS - IBP
8. FAST FOOD - 40%?
9. CATTLE SLAUGHTER DOWN 16% - 5 MOS. # + 3%
10. HOGS - 5 MOS. + 7%

    MAY + 16%

    FALL + 20%
11. MOST HOGS SINCE JUNE 1971
12. FERTILIZER + $40 - GAS $2 to $3
13. SOVIET AND CHINESE BUYERS - PERMANENT
14. 16% HOG UNITS ARE PARLORS
15. SETTING 100M EGGS WEEKLY FOR BROILERS
Nothing destroys weevils and leafhoppers like Furadan.

Stop. All pesticides can be harmful to health and the environment if misused. Read the label carefully and use only as directed.

Furadan is a registered trademark of FMC Corporation.

Stops more pests... Saves more alfalfa.
Farr: Cow-calf producers look to good times

Cow-calf producers have "many years of profitable production ahead," partly as a result of the burgeoning fast-food industry, a leading spokesman for the cattle industry predicted recently at Colorado State University.

W. D. Farr, former president of the American National Cattlemen's Association and president of Farr Farms, Inc., Greeley, told cattlemen attending the annual Beef Cattle Day program that the fast-food industry and several other factors have combined to make possible his prediction of a profitable future after several years of generally hard financial times for ranchers.

"As I analyze our industry in 1979, I am absolutely confident that the cattle industry is in the early stages of the most radical change we have ever known," Farr told the group.

"The change that I am referring to is the tremendous demand for beef from the fast-food restaurants."

He noted that during the past 5 years cattlemen, because of prices and other problems, have been liquidating 22 million head of cattle. During that time, the fast-food industry was growing rapidly, aided by the large supplies of relatively cheap beef that became available as cows, bulls and other lower-quality beef animals were slaughtered.

Farr said that today those businesses, ranging from hamburger outlets to pizza parlors, have a tremendous investment in facilities and are continuing to grow, thereby creating an inelastic demand for beef.

He said that slaughtering of cows has now declined, the demand has continued and the result is an extra demand on feedlot-fed beef, thus creating record high prices for live fat cattle, live feeder cattle and dressed beef.

"I believe that producers need to understand that this demand is permanent," he predicted. "I believe that fast-food outlets are here to stay. Their demand is more constant on a day-to-day, week-to-week basis than the chain store demand."

An Example

As an example of what this situation means to cattle producers, Farr pointed out that because cow slaughters were reduced severely during the past 2 years, the chuck portion of some 3 million fed steers was diverted into the fast-food industry to compensate for the loss. (The fast-food industry generally uses the less expensive cuts for ground beef.)

He said that amount and more will have to be diverted in 1979 as cow slaughter declines further.

Farr said some people believe that the demand for cow beef will be met by increased production of grass-fed animals, a point with which he disagrees because of the high cost of land required for grass feeding.

Instead, Farr said he believes that leaner fed cattle will be slaughtered for the fast-food industry.

Farr said his predictions for the future are supported by representatives of the fast-food industry who recently said they expect their business to double in the next 5 years. That may be somewhat optimistic, he said, but it indicates the trend.

Rapid Expansion

The cattleman pointed out that conditions such as those today in the beef industry usually result in rapid expansion of cow herds as cattlemen attempt to expand production to meet demand. Farr said, however, that he doesn't believe this will happen this time.

The reasons, he explained, are that, unlike in the past, cows are costing more than at any time in history; borrowing money is more expensive, feed prices have increased and land prices are at all-time highs.

Those ingredients, he said, will combine to provide cow-calf producers with many years of profitable production in the future. ❖

Colorado Rancher & Farmer

6 tons per trip in family-car comfort.

The streamlined cab will bring a smile to your face. It's been restyled from top to bottom: soft seat...smartly designed interior...fingertip controls. And, with optional air conditioning and heat, you won't mind spending long hours on the job!

And the more bales you handle, the more you'll appreciate all the improvements that Sperry New Holland has built into this Model 1069 automatic bale wagon.

Not just in the cab, but all over. A rolling rack cylinder lets you unload partial loads. The second table and load rack have been lengthened to handle expanded bales. A fully

synchronmesh transmission smooths out and simplifies driving. The engine boasts added horsepower with greater fuel economy and has been relocated under the load rack for increased traction and serviceability.

Six tons every trip, that's how much the wagon carries and that's why stacks build up so fast. Best of all, the "1069" is built to take all this strain, with extra strength added in the pickup, the lift tables, the rolling rack.

Want the full story? The man to see is your Sperry New Holland dealer. Big tonnage plus big comfort is a hard-to-beat combination.

Sperry New Holland is a division of Sperry Rand Corporation.
Liquidate ... Then Rebuild Wisely!

by Jerry Sinise
Southwest Editor

There was one noticeable omission during the KLA Cattle Feeders Conference, July 8-10, in Dodge City — no one was predicting prices.

In the past, this might have been relatively easy, but as W. D. "Bill" Farr, one of the nation's most respected cattle feeders observed, "Today I have less confidence in predictions . . . 1980 and 1981 have been very disappointing years for the cattle industry. The industry has marketed all the beef produced, but it has been marketed at a loss to the industry. During this period of time most of the losses have been borne by the feeding segment. Now the stocker feeder operators and the cow/calf men are starting to carry part of the burden. Beef consumption has gone down. About 16 percent in four years, but still the beef industry is unprofitable, and the fact that the total beef cattle industry is so unprofitable is my biggest worry about the fall of 1981 and the year of 1982."

Farr told the more than 350 feeders attending that the industry must liquidate cattle and reduce the basic cattle herd. With fewer pounds of beef to sell to the consumers it can be sold at a profit to the industry. This is a difficult transition for the industry. The most favored meat with the largest consumption is forced to take third place behind pork and poultry. As drastic as this liquidation will be, it is the only option the industry has."

He added that he couldn't "get excited about cattle feeding for the balance of this year, nor 1982, because I have never seen good markets when liquidation was taking place. I am also worried about the final outcome of crops. If the grain crop comes up a little on the short side, and feed costs are a little higher, this will emphasize the price problem even more. Feeders will lower feeder cattle prices because they will have to pay more for feed and this will only make the liquidation more severe."

Farr is convinced that the next several years will be difficult. "Most of the favorable economic foundations that built our beef cattle industry have changed or are changing. Now we are faced with becoming a competitive, efficient industry or we will not survive. "As feeders, we all know that many cattle are better performing than others. We see the occasional bunch of cattle make exceptionally fine gains. We see individual animals in test pens consistently gaining four pounds a day. The sad part is that too many cattle are two-pound-a-day gainers. The cattle industry does not control the breeding and the quality of the cattle it produces. The basic problem is that our competition, poultry and pork, are only producing meat for the table. They care nothing about what the bird looks like, what color it is, whether it is nice to look at or not. The pork people have come to the same conclusions. They use crossbred hogs almost entirely, but they are crossed very strictly using pure blood lines and in the right proportions.

"The cattle industry," Farr said, "does everything by eyeball. Everyone tries this breed against that breed with no control and no regard for the future. The crossbred heifer kept at the ranch may be a good looking animal, but as she is crossed with some other breed and her heifer calf is crossed with still another breed without any planned program, we are gradually mongrelizing our cattle herd, not improving them.

"With this kind of feeder cattle supply there is no way the beef industry can really efficiently compete with poultry and pork. The producers of those two meat proteins know how their animals will perform. Cattle feeders have no assurance that the feeder cattle at the auction will either gain well or make good carcasses."

Farr called for some changes in the industry thinking.

"First, the new grading standards soon to be announced by USDA must be adopted. These grade changes will do more to move the cattle industry forward than any other single thing. The new Choice grade beef will have less fat and will be more competitive to poultry and pork.

"The new standards clearly outline a single goal of what kind of beef to produce. One of the reasons for the trial and error in cattle breeding has been the many grades of beef. The cattle industry has tried to serve many different markets with different qualities of beef. We have attempted to have light carcasses, heavy carcasses and overfat carcasses. The beef cattle industry must get honed in on a single highly efficient product. If we are going to be competitive, the industry must adopt the tough disciplines poultry and pork have adopted. We must produce for the market and we must put money on the line to promote and sell beef."

Lee Isaac, left, manager, Supreme Feeders, Liberal, Ks., talks cattle prices with longtime order buyer Bob Lantis of Dodge City.
Title of the talk was "What Size Critter Fits the Box," but the room became as quiet as if the subject had involved life itself. Partially the drinks stopped clicking and the dinner forks were put down because the subject does involve life itself—at least the business life of cattlemen. ("You'll either put it in the box or you'll be out of business," the speaker said at one point.)

But mostly everything quieted down because the speaker was W.D. "Bill" Farr of Greeley, Colo., a monumental leader in the cattle business. He's a past president of the National Cattlemen's Association and has interests in farming, feeding, ranching and water rights. He could be considered the elder statesman of the American cattle industry.

The event was the Leachman Cattle Company's presale party the night of April 12 on the top of the tallest building in Montana, The Billings Sheraton. Farr had accepted the invitation of Jim Leachman of Billings, a former president of the Red Angus Association of America and considered by many to be the premier Red Angus man of the world. Farr, basically a feedlot man, spoke on the "why" of changes in the cattle industry.

Once, "everybody developed his own cattle." And then there was emphasis on "pretty," which "wasted a lot of time." Dwarfism came along for a reason.

And 35 years ago, Farr said, he took "a terrible tongue-lashing" for buying some crossbreds that filled a feedlot with various colorations. In recent years there have been various new breeds, and some cattle in feedlots now are worse cattle than were available 10 years ago, while others are capable of putting on four pounds of beef a day, Farr said.

But a beef animal has only one purpose, and that's to produce beef," Farr said. And, he said, it has to be done economically to be competitive with poultry and pork. The broiler industry has exploited genetics and boxing. "They have made it easy for the retailer to sell their product," he explained the next day, in private talk at Leachman's that actually eight different boxes "make up the whole critter." Various cuts go in various boxes, and if a buyer were to purchase 800 boxes he could theoretically reassemble 100 critters.

Beef sold by the box, rather than by the carcass, means that nobody knows if they're buying steers, heifers—or what. But they do know the name stamped on the box, and thus the packer's reputation is at stake.

One packer, Farr said, delists any carcass over 800 pounds. And they'd better do it quickly, or they won't be doing it economically. He suggested: "Make your plans accordingly." Leachman's sale the next day suggested that Leachman animals are already about as close as any critters to that goal. They grossed more than $1 million.
AMI BEEF COMMITTEE
CHICAGO 11/10/80

I VERY MUCH APPRECIATE DICK KNIGHT’S INVITATION TO APPEAR BEFORE THE AMI BEEF COMMITTEE. I HAVE KNOWN MANY OF YOUR MEMBERS AND HAVE WORKED WITH AMI FOR ABOUT FORTY YEARS.

AS I HAVE SPOKEN TO THE BEEF COMMITTEE ON PREVIOUS OCCASIONS I HAVE ALWAYS BEEN OPTIMISTIC AND HAVE TALKED OF GROWTH FOR THE ENTIRE BEEF CATTLE COMPLEX. I AM SORRY TO TELL YOU THAT NOW I AM PESSIMISTIC AND WE ARE ALL WORKING WITH A DECLINING CATTLE INDUSTRY.

WE NEED TO ANALYZE WHY THE BEEF CATTLE INDUSTRY GREW SO FAST AND SO WELL FOR 35 YEARS. THEN WE NEED TO LOOK AT TODAY’S SITUATION AND PREDICT WHAT IS MOST LIKELY TO HAPPEN IN THE NEXT FIVE TO TEN YEARS.

THE GREAT INCREASE IN FED CATTLE CAME FROM CHEAP CORN. THE FARM LAWS THAT SUPPORTED GRAIN PRODUCED LARGE SURPLUSES AFTER WORLD WAR II. THE USUAL PRICE OF CORN WAS ABOUT ONE DOLLAR PER BUSHEL. FOR THE PAST COUPLE OF YEARS CORN HAS SOLD AROUND TWO DOLLARS A BUSHEL. TODAY, BECAUSE OF SOME HOT, DRY WEATHER, CORN IS MORE THAN THREE DOLLARS A BUSHEL. THERE IS TALK OF FOUR DOLLAR CORN.
CORN HAS INCREASED IN VALUE BECAUSE OF WORLD DEMAND FOR MORE MEAT, MILK AND EGGS IN THE DEVELOPING COUNTRIES. ANOTHER REASON CORN IS MUCH HIGHER IS BECAUSE OF PRODUCTION COSTS. ENERGY COSTS HAVE DOUBLED AND TREBLED, WHICH HAS CAUSED FERTILIZER COSTS TO INCREASE DRAMATICALLY. THE DIESEL FUEL TO PLOW, CULTIVATE, AND HARVEST THE CROP, PLUS THE DRYING EXPENSE, HAS MADE CORN MOVE HIGHER IN ORDER TO PRODUCE THE CROP.

THESE ENERGY COSTS, PLUS VERY HIGH MACHINERY COSTS ON TOP OF HIGH INTEREST PAYMENTS, ARE VERY PERMANENT. IT COSTS A LOT TO GROW A BUSHEL OF CORN. THE DEMAND IS EVER INCREASING, AS WELL AS COSTS, SO THERE IS LITTLE RELIEF IN SIGHT.

CATTLE FEEDERS BUY TWO RAW PRODUCTS, FEEDER CATTLE AND CORN OR ITS EQUIVALENT. THEY MIX THE TWO AND SELL FINISHED CATTLE WHICH PRODUCE USDA CHOICE BEEF. AS FEED PRICES INCREASE, THE PRICE OF CHOICE BEEF MUST INCREASE OR FEEDER CATTLE MUST BE BOUGHT CHEAPER. WE ARE IN THE MIDDLE OF ONE OF THOSE PERIODS AT THE MOMENT. FEEDER CATTLE PRICES ARE LOW ENOUGH THAT THE CATTLE INDUSTRY IS NOT PROFITABLE, SO SOME LIQUIDATION IS IN PROGRESS.

DURING THE YEARS OF GROWTH IN THE CATTLE INDUSTRY, THE UNITED STATES WAS VERY COMPETITIVE. PRODUCTIVITY WENT UP. WAGES
WENT UP, AND CONSUMERS CONSTANTLY HAD MORE DISCRETIONARY INCOME TO SPEND. THEY LIKED BEEF AND CONSUMERS KEPT SENDING SIGNALS TO PRODUCE MORE. THE RESTAURANT INDUSTRY ALSO GREW DRAMATICALLY -- THERE WERE MORE HIGHER CLASS RESTAURANTS AND FAST FOOD OUTLETS. MOST OF THESE RESTAURANTS FEATURED BEEF. THOSE YEARS OF INCREASING INCOME WERE THE REAL KEY TO THE GROWTH OF THE CATTLE INDUSTRY.

TODAY, AND FOR THE FORESEEABLE FUTURE, THE REVERSE SITUATION IS TRUE. INCOMES HAVE LEVELLED OFF; INFLATION HAS INCREASED FASTER THAN SALARIES. PEOPLE HAVE LESS DISCRETIONARY INCOMES AND THEY MUST BE CAUTIOUS OF THEIR EXPENDITURES. IT IS OBVIOUS THAT THEY ARE SUBSTITUTING MORE POULTRY AND PORK IN THEIR DIETS, BOTH AT HOME AND IN THE RESTAURANTS. UNLESS INFLATION IS REDUCED THERE WILL BE MORE SWITCHING FROM MEAT TO CEREAL PRODUCTS.

THESE ARE THE FACTS AS WE FACE THEM TODAY. THE CATTLE INDUSTRY IS IN A SERIOUS DECLINE, AND IT MAY BE PERMANENT. SURVIVAL, TO SOME EXTENT, IS THE ONLY OPTION.

CATTLE ARE THE POOREST CONVERTERS OF GRAIN TO MEAT PROTEIN. THE HIGHER GRAIN PRICES GO, THE GREATER THE DISADVANTAGE. THE PRICE OF BEEF IS ALREADY HIGH COMPARED TO OTHER MEATS, BUT IT MUST GO HIGHER IN ORDER TO PAY PRODUCTION COSTS. BEEF PRICES
NEED TO INCREASE AT LEAST 25% FROM TODAY’S LEVELS FOR THE INDUSTRY TO MAINTAIN CURRENT SUPPLIES. I BELIEVE THAT MOST CONSUMERS CANNOT AFFORD THAT MUCH INCREASE: THEREFORE, I BELIEVE BEEF LIQUIDATION WILL CONTINUE.

YOU ARE ALL FAMILIAR WITH THE FACT THAT MANY FEEDLOTS HAVE CLOSED. SOME STATES HAVE REDUCED CATTLE FEEDING MATERIALLY. THIS TREND MUST CONTINUE UNTIL WE BRING THE BEEF SUPPLY INTO BALANCE WITH PROFITABLE PRODUCTION. MANY BEEF SLAUGHTER PLANTS HAVE CLOSED BECAUSE OF REDUCED NUMBERS. IN THE NEXT FIVE YEARS MANY MORE WILL CLOSE. THE QUESTION IS WHAT CAN WE DO?

IN MY JUDGMENT THERE IS ONLY ONE OPTION FOR THE CATTLE INDUSTRY. THEY MUST CHANGE THEIR OPERATIONS FROM BEING CALF PRODUCERS TO BEEF PRODUCERS. THE PRODUCERS WILL REDUCE COW NUMBERS SO THEIR FEED SUPPLY CAN MAINTAIN THE COW HERD AND GROW THEIR CALVES INTO YEARLING CATTLE WEIGHING 700 TO 800 POUNDS. THIS BASIC MOVE KEEPS THE RANCHER IN BUSINESS, BUT IT REDUCES NUMBERS OF CATTLE AVAILABLE TO SLAUGHTER ABOUT 25%.

CATTLE ARE RUMINANTS. THEY CAN CONSUME VAST AMOUNTS OF ROUGHAGE FEED AND CONVERT IT TO MEAT PROTEIN. THE CATTLE PRODUCERS MUST CHANGE THEIR OPERATIONS TO TAKE ADVANTAGE OF THAT ROUGHAGE. WITH HIGH GRAIN PRICES AND HIGH INTEREST CHARGES, IT IS NO LONGER PROFITABLE TO PLACE LIGHT CATTLE IN FEEDLOTS. ANIMALS WILL HAVE TO BE GROWN ON GRASS OR OTHER ROUGHAGE UNTIL THEY WEIGH 700 TO 800 POUNDS, THEN BE PLACED IN A FEEDLOT FOR A RELATIVELY SHORT FEEDING PERIOD.
BEEF IS THE MOST DESIRED MEAT AND SELLS AT A PREMIUM PRICE, THE FLAVOR, TASTE, AND TENDERNESS COMES FROM THE FEEDING. GRASS BEEF WILL NOT SATISFY THE CONSUMERS. CATTLE MUST BE FED, BUT NOT FOR AS LONG A TIME AS HAS BEEN THE PRACTICE IN RECENT YEARS.

I REPEAT AGAIN, THE BEEF CATTLE INDUSTRY IS A SICK, CONFUSED INDUSTRY. IT IS THE LARGEST AGRICULTURAL INDUSTRY IN THE UNITED STATES. THE CATTLE INDUSTRY USES MORE ACRES AND PRODUCES MORE DOLLARS PER YEAR THAN ANY OTHER SEGMENT OF AGRICULTURE. THE CHALLENGE IS HOW TO RE-DIRECT THE CATTLE AND BEEF INDUSTRY FOR THE BALANCE OF THIS CENTURY.

OUR CATTLE PRODUCERS ARE TERRIBLY CONFUSED BECAUSE OF THE MANY CHANGING SIGNALS. FOR EXAMPLE, FIVE YEARS AGO A THREE HUNDRED POUND CALF WOULD BRING MAYBE TEN DOLLARS PER CWT MORE THAN A FOUR HUNDRED FIFTY POUND CALF. FEED AND INTEREST WERE CHEAP AND THE CALF WOULD GROW INTO A LARGER ANIMAL CHEAPER THAN BUYING THE ORIGINAL POUNDS. TODAY THE LIGHT CALF IS NOT BRINGING THE PREMIUM.

SOME PRODUCERS TRIED CROSS BREEDING WITH EXOTIC BULLS. THEIR CALVES WEIGHED A LOT MORE AND BROUGHT MORE DOLLARS TO THE RANCH. MANY OF THESE LARGE FRAMED EXOTIC CATTLE WILL NOT GRADE CHOICE UNTIL THEY WEIGH 1300 TO 1400 POUNDS. THERE IS VERY LITTLE MARKET FOR THAT HEAVY ANIMAL BECAUSE THE UNIT COST OF A STEAK OR A PRIME RIB IS TOO HIGH.
I HAVE ILLUSTRATED BOTH EXTREMES, BUT BOTH SIGNALS HAVE BEEN SENT OUT. THE RANCHER IS ASKING WHAT DO YOU WANT? WHAT DO YOU REALLY NEED TO PRODUCE CHOICE BEEF IN AN ECONOMICAL BASIS?

THE CATTLE FEEDING SEGMENT OF THE INDUSTRY IS ALSO CONFUSED. OUR PRESENT BEEF GRADING STANDARDS CAUSE OVERFEEDING TO MAKE CHOICE GRADE. CATTLE FEEDLOTS CAN MAKE YEARLING CATTLE GRADE ABOUT 50% CHOICE IN AROUND 120 DAYS. THE SLAUGHTER PLANTS WANT 75% CHOICE, SO WE FEED ANOTHER 30 DAYS TO PRODUCE ENOUGH MARBLING FOR ANOTHER 25% PERCENT TO GRADE. THE LAST 25% ARE GENETICALLY INFERIOR AND MANY OF THEM WILL NEVER GRADE. THE SAD PART IS THAT THE FIRST 50% WERE MOSTLY CHOICE TWOS AT 130 DAYS, BUT WITH ANOTHER THIRTY DAYS’ FEED, WHICH THEY DIDN’T NEED, THEY ARE ALL THREES AND FOURS.

THERE IS NO QUESTIONING THE FACT THAT WE ARE PUTTING TOO MUCH FAT ON OUR CATTLE IN THE FEEDLOTS. TODAY’S DISCOUNT OF UP TO FIFTEEN DOLLARS FOR NUMBER FOUR CHOICE BEEF CARCASSES PROVES THE POINT.

THE BEEF INDUSTRY NEEDS TO CHANGE GRADE STANDARDS TO PRODUCE LESS WASTY CATTLE. THE SOONER THIS IS DONE THE QUICKER THE INDUSTRY CAN CONCENTRATE ON PRODUCING EXCELLENT YEARLING CATTLE SUITABLE TO THE FEEDLOTS FOR A SHORTER FEEDING PERIOD. THIS WILL FOCUS ALL PRODUCERS’ ATTENTION TO THE BASIC PRODUCTION OF BEEF FOR THE FUTURE. MOST AREAS AND MOST PRODUCERS WILL SURVIVE, BUT THERE WILL BE SOME VERY SEVERE PROBLEMS IN THE READJUSTMENT YEARS.
HEMISPHERE '82

U.S./Developed Countries Views

Eating or Starving--We’re in It Together

I realize that this is a workshop and we are talking about problems that may face the world in another fifteen or twenty years.

My remarks today are those of a food producer who is having a difficult time surviving in the world as it is today. World economic conditions plus very large crops have lowered farm prices to disastrous levels.

All of agriculture in the United States, Canada, Australia, the E. E. C., and South America are slowly going broke. This statement is hard for people to understand because they relate to what they consider very high food prices in the retail stores.

The steep rise in retail food prices have come because of the oil embargo in 1974. The cost of transportation, refrigeration, and heating and cooling have caused the farm to market margin to increase substantially.
THE RETAIL CUSTOMERS ARE VERY CAUTIOUS BUYERS BECAUSE TIMES ARE TOUGH AND THEY MUST STRETCH THEIR FOOD DOLLARS. THESE SHOPPERS ARE CURRENTLY IN THE DRIVER'S SEAT. LITERALLY THERE IS MORE FOOD OF EVERY KIND AVAILABLE THAN OUR NATION HAS EVER KNOWN. THERE IS A SURPLUS OF EVERY MAJOR FOODSTUFF PRODUCED, SO FARM PRICES ARE VERY LOW. IN FACT, THE MARKET ON MANY FARM CROPS IS AT THE POINT WHERE THE BUYER IS DOING A FAVOR TO THE FARMER TO BUY AT ANY PRICE.

THERE ARE TWO REASONS WHY I AM SPENDING TIME TALKING ABOUT FARM PRICES.

FIRST WE ARE LOSING MANY FARM PRODUCERS THIS YEAR BECAUSE ECONOMIC CONDITIONS HAVE FORCED THEM TO SELL OUT AND QUIT FARMING. IT IS NOW PLANTING TIME FOR 1982 CROPS. THERE ARE NO CROPS THAT CAN BE PLANTED AND MAKE A PROFIT. THAT STATEMENT IS BASED ON COMMODITY FUTURES PRICES WHICH ARE ALL VERY WEAK.

IF NORMAL CROPS ARE PRODUCED AND PRICES REMAIN AT ABOUT CURRENT LEVELS, THERE WILL BE A MUCH LARGER NUMBER OF FARMERS FORCED TO LIQUIDATE THIS FALL AND WINTER. FROM ALL INDICATIONS THAT WILL MOST LIKELY BE THE PATTERN.
As some farmers are forced out, others will take over, largely by increasing their operations trying to pay bills by farming more acres. This is effective but some production is lost.

Farmers are impacted greatly by high interest. Everyone realizes that the farmer must pay interest on machinery and land debt, plus seed, fertilizer, etc. The more serious phase of high interest is the fact that no grain merchant, cotton dealer, or sugar manufacturer can afford to carry any inventory. As firms operate on a hand to mouth basis of only buying crops when they can sell product; the markets have no life. To have strong markets and higher prices, someone has to have confidence and buy large amounts of crops. Then when they have a position with a large inventory, the dealer will push and sponsor a market in order to make a profit. This ordinary phenomenon does not happen with 20 per cent interest.
U.S. farmers and livestock producers plus farmers and livestock producers in developed countries realized good prices in the 1970's. They responded all over the world to these good prices. The results are too much food of all kinds with ruinous prices. The talk of world hunger and short food supplies was also a part of the reason for bigger crops.

The problem we face today is to gradually use up crop surpluses. This will take from one to five years depending on growing weather and the economics of growing the crops. All farmers will be financially hurt and larger crops to feed a hungry world will return very slowly.

In my judgment the U.S. and the developed countries can easily raise all the food needed in the world for at least another 25 to 50 years. To do this will require higher prices. More demand for food will mean more fertilizer, better seed, more machinery, etc. Farmers and livestock producers have used up a generation of saving. They cannot afford to gamble on raising crops unless prices justify them.
In summation there is no need for hunger or starvation in the foreseeable future. The land and the farmers can produce all the food needed, but because of this economic crush it will be harder and slower to get response from food producers. They are gun shy. They have just overproduced themselves out of business. Producers will not hurry to feed a hungry world. They will insist on proof and a continued demand before they ever produce their potential again.