How has inflation affected the cattle and farming business?

Ranch and farm products are generally thought of as food on the table, and I believe most of you feel that food prices are high now and have been for several years.

Many of our ranch and farm products are perishable, such as meat, poultry, eggs, fruits and vegetables, even including the lowly potato, which has suddenly become the VIP of the food world. Many products and by-products such as grain, beans, sugar, hides, wool, fats and oils are commodities that can be stored for various lengths of time. Therefore, inflation affects some products more than others.

I was asked to particularly discuss the effect on the cattle industry because in recent years the production of beef in Weld County has become its biggest business.

Inflation and price control have affected the cattle business greatly the last few years. We have had high prices and widely fluctuating markets for many months. We have made good profits during part of this period and taken disastrous losses in other periods or in other products.

For example, immediately following the elimination of the old OPA controls, the meat producers received high prices for their livestock. Production had been reduced in all lines and for the first few months when people had large incomes and there were not enough hard goods available for the demand, we meat producers received almost 7% of the consumers disposable income. This was an all time high and only lasted a short time because production of meat increased under a free economy and because you, as consumers, rebelled against high meat prices. Cattle prices
declined approximately 30% from October 1949 to March 1950. Many farmers put a mortgage on their farm that spring in order to pay their cattle feeding debts.

Since the spring of 1950 we have seen the following things happen: As the Korean conflict built up and the scare buying of all commodities increased, naturally farm and livestock prices advanced rapidly because they are the sensitive commodities which reflect changed conditions quickly.

Livestock feeders bought cattle and lambs in the fall of 1950 at strong prices and paid increased prices for feed supplies, hoping they could work out in the spring of 1951. However, OPS placed ceilings on cattle and beef in January, 1951 which upset the apple cart again. The ceilings let the cattle feeders, who had purchased cattle in the fall of 1950, make a modest profit, but for cattle purchased at a later date they took modest losses. Then to cap the climax, the OPS tried to roll prices back 10% in May and again in August. These rollbacks would have produced a heavy loss, but Congress saw fit to tell OPS that it would not allow rollbacks and prices stayed at ceiling levels. However, the damage was done as far as you as a consumer was concerned. With the threat of rollbacks, producers figured how they could delay the marketing of their beef. They did so by keeping them on their ranches eating grass and the feedlots operated on a half full basis. The consumer had a large income last summer and a relatively small amount of beef consequently prices held at full ceiling with a mild black market.
The lamb feeders had no ceilings imposed on them until May 1951. The prices they received were the highest on record and everyone made a good profit.

This brings the situation up to last fall, 1951. Cattle feeders were encouraged by the knocking out of the rollback provision, the cattle which were fed during the summer were profitable because of the greatly reduced supplies caused by the artificial controls and there were large numbers of cattle available to feed. With these favorable factors, production increased and there have been more cattle fed in the past winter than ever before. The supplies of beef have been sufficient so that cattle and beef prices have been below OPS ceilings ever since January, so they are not effecting the market at the present time. Cattle feeders have lost a relatively small amount on their feeding this winter.

On the other hand, lamb feeders increased their feeding and have taken the most disastrous losses ever known.

Livestock feeding has probably lost Weld County 4 million dollars this past winter. I hope this will make you realize that what seem like high food prices doesn't always mean a profit to the producer. I assure you there are many mortgages being placed on farms this spring to pay feedlot losses.

Before I sum up my remarks, I cannot help but mention the potato situation. Potatoes were artificially supported in the price for several years and because the government guaranteed a profit to a potato grower, they naturally grew all they could, which resulted in a surplus. In 1951
the government withdrew all support from the potato crop. The acreage was
reduced considerably and a poor growing season reduced it further. Last
summer the Gilcrest growers averaged less than $1.00 per sack for their
crop. When the fall crop was harvested it was obvious that we had a short
crop. Prices began to slowly go up. By January 1952 the farmer was
netting about $3.00 per sack for his potatoes. Then OPS decided that
potatoes were a staple food and they must control the price.

The price was rolled back about 25¢ to 50¢ per sack depending on
quality in this area. Other areas were effected by over $1.00 rollback
or an arbitrary cut in the farmers income of 20% to 30% by OPS edict.

Potatoes in storage constantly shrink in weight. The storage has to
be heated to keep from freezing and as warm weather comes in the spring
potatoes want to grow, so the storage has to be cooled. Sometimes the
sprouts have to be removed. All of these items cost money, but OPS
said you can legally advance potato prices 10¢ in February, 10¢ in March,
5¢ in April and 5¢ in May. No one could keep potatoes in storage for these
small charges and legally they could get no more. Consequently, the
potato crop was marketed early in the winter at prices below supply and
demand. Today you are having difficulty buying them at all.

If price control had not been put on potatoes in January they probably
would have advanced another dollar or two before you, Mrs. Housewife,
would have voluntarily started using substitutes and holding the price at
a level that would have spread the marketing of the crop.
Do you blame a farmer who grew a short crop of potatoes last year for feeling he has been discriminated against? Do you realize that every farmer at Gilcrest who has his potato crop planted and who will be digging this year's crop in July has no idea what his ceiling price may or may not be? There are no OPS potato prices announced after June. If you were a farmer, would you increase the natural weather, insect, and other hazards by growing a large crop of potatoes that a government agency could arbitrarily price for you?

The farmers aren't increasing their potato acreage this year because of these controls and unless we have a very favorable crop season, potatoes will be in short supply for another year. You, as a consumer, are paying the bill.

To close my remarks I would like to point out that food prices are not as high as they seem to be. In the 1930's you spent 34¢ of the consumption dollar of the average U.S. family for food. In October 1951 you spent only 35¢ of your dollar for food only. A one cent increase from depression times until the present.

The same thing is true of meat in the 30's. You spent 6¢ of every dollar for meat and you are now spending 5 1/2¢ of your dollar for meat. These figures are from the U.S. Department of Agriculture and Labor Statistics.

Food prices must be high, wages, machinery, transportation, distribution, taxes have all increased tremendously. Wages at our feedlot are up 500% since 1934 and feed is up 300% to 500% and other costs proportionately. Costs in your business are up also and I only mention these items to try to show that no one is profiteering in the food business.
DON'T LOSE YOUR SHIRT FEEDING CATTLE

In the last fifteen years cattle feeding has developed into a sound dependable business. It has literally "come of age." The principle reason, of course, is because cattle feeding has made money more or less consistently.

There are many other underlying causes which are responsible for changing cattle feeding from a somewhat speculative business to a much sounder basis.

 Probably our increase in population coupled with our higher living standards has increased and stabilized the demand for good beef more than any other factor. Secondly, modern distribution has furnished a consistent demand at all times of the year in all parts of our country.

The chain store or supermarket is the most important link in our distribution system. Most of these stores in the larger cities and towns have self service meat counters. It is amazing to watch people shop in these stores and buy two slices of cold meat, two pork chops, or one small steak. This really means that before this service was available it was too much bother to have the butcher cut off one chop or a small cut of any kind; therefore, the customer ate a meat substitute. These stores package their meats attractively and do many other things including very intensive advertising for our products.

The shift of population towards the west with the demand and slaughtering facilities following, have increased the competition and spread out the concentration of livestock at a few points.

The modern home freezer and the local locker plants have done much to widen the demand for meat. Incidentally, people have found that beef freezes and keeps better than other meats. This is just another small fact usually overlooked, which has contributed to the stabilization of the beef business.

Truck transportation has played an important role in furthering our industry. The advantage of trucks hauling cattle to and from the feedlots to either the railroad stockyards, or the terminal markets, has speeded up and simplified one of the major problems. The saving in excessive shrinkage and time lost has put
many millions of pounds of meat on our tables and saved many millions of dollars for the stockmen.

There are many other factors that contribute to this enlarged and consistent demand. No attempt will be made to go into all the details of many smaller but highly important new and ever changing facets of our business. There are many small items as well as the more important ones, which have stabilized the business of cattle feeding into a recognized place of major importance in our national economy.

To outline some of the reasons why cattle feeding has been good the past few years—there are not only the facts mentioned, but the extra demand caused by World War II; the disgraceful Korean war; the keeping of OPA controls long past the end of the World War II; the ill advised advent of OPS controls and rollbacks, all of which have made cattle feeding a much more profitable business the past ten years than it will be the next ten.

The cattle population has increased very rapidly the past three years. There are now over 90,000,000 cattle on farms and ranches. The estimators talk about 100,000,000 cattle in another three years. Cattle numbers have actually been building up for three years by reducing slaughter. Cows and heifers have been going into breeding herds rather than to feedlots and slaughter. Eventually this trend will reach the maximum of balance between cattle numbers and feed supplies. This fall, for the first time, feed supplies appear to be close to this point of balance.

The point to illustrate is that cattle prices have been unduly high for several years. Now with the leveling off of new distribution advantages, transportation advantages, unprecedented demand for beef with great disposable income, and shortages of cattle numbers, it is only reasonable to expect a somewhat lower price structure.

How can a cattle feeder protect himself from this possible downward trend? The answer is that he cannot protect himself completely. He can only hedge his operations in a few ways. Here are some suggestions.
First, where it is practical, he should feed cattle the year round, rather than only in the winter months. A cattle feeder should have two or more pens, so he can be feeding two bunches of cattle on different rations for different marketing periods. Many times a bunch of cattle are uneven and it is a waste of feed to feed both the heavy and light animals the same ration and try to sell them at approximately the same time, when they should be at least sixty days apart.

A cattle feeder who plans to feed all the time does not have to religiously follow such a procedure. If feeders seem too high, many times it pays to wait for a more favorable buying opportunity.

There are many factors that make feeding cattle high priced or cheap. Weather is number one. A drouth always brings extra cattle to market, heavy snows, which cover wheat pastures or cause extra hay feeding make cattle runs at the markets. Soft corn caused by late seasons and early frost stimulate the demand for feeding cattle.

A good successful cattle feeder should consider all these facts carefully before buying. Always striving to have his feed supplies and his marketing and buying program geared to take advantage of the best time to buy his feeders.

By the same token, in selling his fat cattle there are many thing to consider. For example, in the cornbelt states there is always a heavy marketing prior to March 1st and April 1st, because their taxes are assessed at that time. In Colorado we pay taxes on cattle by the month after January 1st. Therefore, it is well to plan a light selling program at that time. In the summer, heat waves effect the consumption of meat, causing soft spots in the market. Heavy snowstorms in the large consuming centers in the winter cause Mrs. Housewife to eat canned food for a few days, until the traffic flows normally again. This in turn effects beef markets. Jewish holidays are big factors, Thanksgiving and Christmas are turkey time. These small details in marketing or purchasing should be carefully watched.
A feeder should consider the type of feed he has available, the cost of the feed which he will need to purchase, his financial condition as to his ability to take a loss, and the time of year he would like to sell the cattle, before he makes up his mind as to the kind of cattle and the weights which he wishes to purchase.

**Light cattle are always safest.** They cost less per head and because they are young, a great deal of gain can be produced with cheap feed. In some instances this feed would have no value unless fed to cattle. When a light animal is purchased there is a two way opportunity. The cheap feed can be utilized for two to four months and by adding relatively small amounts of concentrates, very pleasing gains can be produced. As this cheaper feed is used up, there is the opportunity of feeding the animal out if conditions look favorable or the cattle can be sold as warmed up feeders. There are hundreds of commercial feeders all over the country who are always looking for half fat cattle. They are willing to pay strong market prices for animals that are used to feed bunks, that have become more gentle from handling and that are past the hazards of diseases that occur in the early feeding period.

Many people believe this feeding of cattle to the warmed up stage has more profit and has had less attention than any other segment of the business. The warmed up cattle feeding program applies particularly to the younger feeder or the man who lives away from the areas where grain and other concentrates can be purchased cheaper and more dependably.

Sometimes plain cattle are the best program. Most cattle are fed to make money and many times cheap cattle are especially attractive. **Fat** is the best color on any animal. Many times a very thin, poor looking animal can be improved more for the amount of feed consumed than it would be possible to do with a good one. The timing of feeding plain cattle is important. The competition of grass cattle from August 15th to December 1st makes that period undesirable for fat, plain cattle.
Heifers have become very popular to feed because they mature quicker and fatten faster. They sell readily because the beef carcasses are lighter and are accepted in many places in preference to heavier steer beef. The principal concern in heifer feeding is calvy heifers. This will take all the profit and certainly all the fun out of feeding them. Utmost attention should be given to the purchase of feeder heifers. The owner must assure the buyer that the heifers are open. If they are likely to become calvy, don't buy them.

A good cattle feeder watches his cattle as they develop and he fattens them to take full advantage of the grade that the cattle are able to make and also for the grade that the market demands.

Many feeders miss this most vital point. They will buy a good bunch of steers, feed them for several months, to the point where they will grade high good, then sell them. If they had kept them for an additional two to four weeks, they would grade choice and be worth quite a little more. The other contrast is a feeder who has a big plain steer that would make money and be desirable grading good, but he insists on trying to feed him to choice grade, which makes the animal overfat for his quality and therefore undesirable. To sum it up, fat and quality go together. Try to make the most out of all cattle, don't try to outsell your neighbor!

Beef is the best commodity on today's market. It has a secure place as our nation's most popular food. Cattle feeders need to produce more beef so that it can be sold cheaper where more people can buy more pounds of beef for less money, thereby giving them more meat for better health and happiness. Cattle feeders can do this job and make the transition from high prices to moderate prices by continually striving to produce beef as economically as possible, taking full advantage of the ever increasing knowledge of our own business. It will be the cattle feeders fault if he lets past profits influence his judgment in producing cheaper and better beef in the future.
I am happy to have the privilege of attending your Farmers Institute here in Billings. I do not feel entirely like a stranger, since acquiring some property near Martinsdale, Montana, I have had occasion to come through your valley at different seasons of the year and observe the country under different conditions. It also makes me feel at home to be able to visit with my good friend, Bob Kimmons. Bob was manager of the Great Western factories at Greeley and Eaton before coming to Billings, and I assure you people that you are fortunate to have him in your area.

I was asked to talk to you folks about the importance of cattle and lamb feeding and how it has continually grown in northern Colorado since its inception and to point out some of the possibilities that probably exist in your area. I do not pretend to be an orator, I am merely a farmer and a feeder, the same as you people are. I have some firm convictions as to what livestock feeding and livestock agriculture has done for our area and the future that I believe it has in all of these western states.

I will try to outline briefly a few facts and possibly suggest some ideas to some of you. I understand that after I have finished talking there will be time for questions and answers. Of course, I will try to answer them at that time.
Greeley, Colorado is the county seat of Weld County, which is the largest cattle and lamb feeding county in the United States. The records show that on January 1st, we had on feed in Weld County, about 300,000 lambs and between 175,000 and 200,000 cattle. This illustrates to you that a very large percent of the farmers feed either cattle or lambs. You can drive down a county road for miles and eight out of ten farms will either be feeding cattle or lambs. Our county has always been a large lamb feeding area, but with the reduction in sheep numbers, it has gradually drifted to cattle feeding and this shift has been continuing each year. The lambs that are in the feed lots on January 1st, will be marketed between now and the first of May, with practically no replacement. They are strictly a winter feeding proposition. The cattle will be marketed between now and the first of July, that is I would say probably 50% of the cattle will be marketed during that length of time and not replaced. Possibly some years as much as 60% to 65%, but as far as total numbers are concerned, I believe that it would be a safe estimate to say that you would very seldom find less than 100,000 cattle in the feed lots in Weld County anytime during the year. More and more feeders are feeding on a year round steady program, or at least two turns per year so that they have cattle in the feed lot nine or ten months.

I believe the most important point to make about livestock feeding is to feed consistently with whatever program you decide fits your needs the best, but feed every year. None of us are smart enough to pick the good
ones and pass up the bad years. The men in our country who have fed livestock consistently for 10, 20, 30, 40 and 50 years are the successful ones in their community and the farmers who have not fed livestock consistently over the years are very seldom the successful except for the short pull.

By being consistent, I mean several things. You should adopt a policy on your farm of feeding a certain amount of livestock to fit the needs of your farm. Then, possibly vary the program from year to year, depending on the conditions, prices and so forth, but be constant with the number you feed. Don't feed two cars this year, six cars next year, then back to two again, but adopt a policy of feeding what you have feed for and gradually increase as your own situation improves. Be consistent in your buying. If you like to contract early, make it a habit to contract early each year, or if you prefer to wait and buy your livestock when you need it in the fall, at whatever the market price is, adopt that principal and if you will follow it from year to year, you will find that either will average out pretty well, but if you contract early one year and make a good buy, then the next year decide to wait and buy them at market time, you may find that conditions have changed, or you have used poor judgment and then you will become confused and possibly drop out of livestock feeding. I have seen this happen to many people and I merely point it out as the thing that I consider the most basic to a successful livestock feeding program.
You are not as fortunately located as we are from the standpoint of feeding livestock. You are farther from the markets for your finished product and you are farther from the source of supply for grain. However, you have the advantage of being close to the producing end, therefore, your in-bound freight is less than many areas. You also enjoy reasonably good weather and with the wealth of crops that you grow here in your valley there is no reason why livestock feeding could not be expanded considerably.

The population of the United States is moving west. Your population in Montana is growing. The population up and down the Pacific coast is growing tremendously and you are in an excellent position to produce beef and lamb to go to west coast cities and I am sure this tendency will continue and you will be amazed at the amount of product that can be sold to go to the west coast. One of the prime reasons that northern Colorado has grown so in importance is the fact that on many days California orders will take 1/3 to 1/2 of the receipts from the Denver market, plus buying many cattle and lambs in the country to be shipped west for slaughter on the west coast. The Denver slaughter has increased very rapidly until in 1951 Denver is the sixth largest beef slaughtering point in the U.S.. This meat is distributed to both coasts from Denver with a great saving in handling and shrinkage. Ten years ago California would buy occasionally but now they are a factor every day. This same condition is spreading to your country and will increase rapidly, particularly if you make an effort to produce a good product.
I have mentioned that you are at a disadvantage in shipping grain a long distance. Therefore, you need to depend on your farm grown feeds to a great extent. These feeds consist, of course, of sugar beet by-products, alfalfa hay, barley, oats and I presume, some hybrid corn. These are the same feeds that we have, with the exception of the shelled corn, which we only have to ship an average of about 300 miles.

I am not too familiar with your best accepted feeding practices, so the statements that I make might possibly be challenged up here and rightfully so. I am telling you about my own experiences in Colorado. I believe they would work for you. We used to feed our cattle large quantities of wet pulp for a rather long period of time. We fed whole alfalfa hay on the opposite side of the pen from where we fed the pulp, or possibly we fed the pulp in bunks inside the pens and had a whole hay rack on the opposite side. We fed a pound or two of cottonseed meal and possibly no grain at all, maybe 2 and never over 5 pounds of barley or corn. We produced a fair gain, but we did not produce the kind of meat that the public demands at the present time and we did not make any money feeding cattle. We fed the animal too much of one kind of feed, instead of a variety. We did not feed enough concentrated feed to develop the animal into a better carcass and improve the grade of the animal. We merely fed it enough of a ration to keep the animal growing. True, we produced a fair gain, but it did not produce the finish that made satisfactory returns.

There were too many cattle in the pen that did not like the wet pulp, so
they went on the other side of the pen at the hay rack. I have a term for them of "hay burners." They would stand and eat hay all day long for five or six months. They gained some, of course, but they never would get fat and we had a tail-end. There was a car or two out of every feed lot that always had to sell for quite a discount.

We have very few feeders any more, who do not feed a rather wide variety of feed. They grind their feed and give it to their cattle in one feeding bunk. If, in the ration they develop to fit their feed supply, they want to feed six pounds of alfalfa hay, or two pounds, whatever the case may be, that is put in the mixture, put in front of the animal along with the other feeds, so that the animal has to eat the variety of feed and in about the right proportion. I do not mean to say that every farmer and every feeder has a perfectly balanced ration. He does not and that is not necessary. But for the feed that he has on his farm, the feed that he has to use up, he uses it in an intelligent manner. Instead of buying 50 cattle and feeding them for six months with 100 pounds of wet pulp per head per day, we would either buy 100 head of cattle and feed them the wet pulp for about four months and then finish on dry feed the last six weeks to two months, or we would feed half or our pulp to an early bunch of cattle put in the lots in the fall, take them off pulp in December, finish them and sell them in March. Then start another bunch in the feed lot in December and feed them the second half of the pulp and market those cattle in May and June. By this method, the animals respond to a growing succulent feed, such as wet pulp, beet tops, corn silage, or any growing feed and you get the most out of this home grown
feed. If you are going to produce good beef, to sell in competition with other areas, it is necessary that after the cattle have had these growing rations for three to five months, you will have to finish your cattle for the last month or two on a rather heavy grain ration, in order to put the marbling in the meat and get the last cover of fat and the desirable white color in the fat. Dried pulp is a wonderful grain substitute. We use large quantities of it in our feeding and we think it is one of the finest feeds we use. It will produce very white fat and very good marbling. In feeding tests, of course, it is used up to 50% dried pulp and 50% grain. Personally, we never use it over 1/4 of the grain ration. That, again, would depend on the circumstances of each individual.

Lamb feeding has not changed as much as cattle feeding. We still feed lambs about the same as they did 15 years ago. Most of our lambs are fed in the dining room system and are still fed whole hay, whole grain with a protein supplement. I believe this is practically the most economical way to feed lambs and have very little to suggest on lamb feeding, other than I believe it is somewhat the same as cattle feeding, that many feeders waste feed, feeding both lambs and cattle by feeding their wet pulp or their beet tops or beet top silage to comparatively heavy lambs, with a small amount of grain, and then the lambs get too big and too heavy and not very desirable. It would be so much better if they would sort off these bigger lambs, or their heavier cattle, feed them the minimum amount of growing type ration and feed them a little bit more grain, saving the growing feed
for the younger, lighter animals that are going to grow anyway, no matter how much grain you feed them and these growing feeds will produce gains much more cheaply on the young growing animal. I believe also that you will find that it pays to feed a reasonable amount of grain right from the start and if you do feed a reasonable amount from the start, you will develop a better lamb or a better steer, you will develop him quicker and he will make a better carcass and you will not have to feed such a heavy ration on the finish end. We used to try to carry yearling cattle on 2 to 4 pounds of grain and the balance of it pulp, beet tops, corn silage, or whatever we had for quite a considerable period of time, then gradually raise them to a higher feed. We would carry lambs on a quarter of a pound of grain and the balance rough feed. We find that by reducing this succulent growing feed some and putting the cattle up to 7 to 10 pounds of grain, or lambs up to a half pound, that we get much better results, we get them quicker, we get a higher grading on the animal and a much more satisfactory operation and as I mentioned before, we save some of the succulent feed for some of the younger, lighter pen of animals, or for a second feed.

There is one more phase that I have not mentioned and that is the possibility of warming cattle up. It is not necessary to actually fatten all the cattle if you are short of feed. There are many, many farmers that can buy cattle and turn them out in their fields and let them eat the beet tops and the other fall pasture crops. If they really want to build up their farm, they should shut them in the corral, haul the beet tops in and get a good deal
more out of their feed with the cattle shut up than they can with the cattle running in the field. Again, by feeding some grain in the corrals and doing a better job, you can grow these animals, develop them, raise the grade and utilize all your feed. Whenever this cheap feed is gone, the cattle can be sold as warmed-up feeders. In our area where we feed cattle constantly one of our big problems is to get a good source of feeder cattle from January 1st to August 1st.

Ordinarily feeder cattle sell at the lowest point in October, when they are most plentiful and generally feeder cattle will sell at a peak price in February or March. That is even true this year, with almost every cattle feeder losing money, the demand for warmed up cattle is still very good and feeder cattle are bringing prices that seem extremely high compared to feed costs and price ceilings, which are still in effect but which apparently some people forget, because they are not effective at the moment, when prices are below the ceiling.

I believe I have dwelt on the actual mechanics of feeding enough and if you have any questions, the question period should straighten them out.

Before I close there are a few things that I would like to mention in regard to livestock feeding. First, I do not believe you can have a good farm for very many years if you do not feed. Therefore, I believe it is paramount that every irrigated farm in the west sooner or later is going to have to be operated as a partial livestock unit. It is your responsibility to yourself to make your farm a profitable operation. There is nothing that will insure the continued prosperity of your farming like handling livestock.
Secondly, you owe it to your family, your sons, who are growing up, that you are going to turn these farms over to. Plan a good livestock program, and you will turn them over a better farm than the one you purchased years ago. Barnyard manure is the only consistent way to build a farm over a long period of time. Your commercial fertilizers are valuable and we use lots of them, but they will not compare with the barnyard manure. We have records of a couple of farms that my grandfather developed that have been in the family for 70 years. We are raising better crops on these farms every year and they are in much the highest state of cultivation they have ever been in. They have been farmed with good rotation practices, plus livestock feeding, and in all these years we have never failed to take high yields of sugar beets, potatoes, pinto beans and other crops. They have been a very profitable sound investment for many years.

I am not an old man. I was born in Greeley, Colorado and I have been raised with farming and livestock feeding all my life. To me, your country looks like I remember our country used to look when I was a small boy. Our country has developed, matured, increased its fertility, increased its value, its appearance, its productivity and its desirability as a place to live through the years. You have the same future before you and I would suggest that if any of you in your travels would drive through your own area here and then drive through an area like the Heart Mountain project and then drive through our northern Colorado area, I believe you will see the picture that I am trying to present. You will see a new country, such as Heart Mountain, compared to your medium aged country, compared to our older, more developed country. Your future is bright, if you will build it soundly on the basis of a livestock agriculture.
We have a responsibility to the American public and the American housewife. They are our customers. Their daily purchases of food are what make our production a business. We all know what inflation is doing to us. It is also playing havoc with the city dweller. It is our responsibility to try to produce more food, at as reasonable a price as possible, so that our American citizens can be the best fed people in the world, consequently the healthiest and the happiest. We have a challenge, particularly in the production of beef. Our prairie and mountain ranges will not carry too many more additional cattle. The increase of beef must come through small herds, on pasture and in our western empire on irrigated pasture. We need a bigger cattle population and we need to produce more beef. It will be cheaper in price than it is today, but if we do a good job of producing it, we can produce it for less money and if it costs just a little bit less, the American housewife would eat many, many more pounds per year and be much healthier and much happier. Our business would be on a more stable basis. To me, beef seems to be the number one commodity wanted by the American public.

Our challenge is to produce more on each acre, utilize all of this production, and by intelligent planning, increase the producing capacity each year. We must do these things in order to properly feed an ever increasing American population. If we accept the challenge, I am sure the future of all these western states will be bright.
My subject is "Reducing Costs in Agricultural Production". I believe most everyone will agree that this is very difficult and can only be accomplished to a moderate degree.

In the last twenty years freight rates have increased thirteen times. Minimum wage laws have been enacted and increases made until now our lowest wage is one dollar per hour.

The buying habits of our American consumers have shifted to the super market. With this shift the consumer insists on more packaging, more precooked foods, more quick foods; another way of stating it is, she wants and needs more built-in maid service in her food purchases. These habits are fine except they are constantly increasing costs between producers and consumers. However, to be realistic we must accept the modern merchandising methods and probably expect more. This means we must look in other directions to lower agricultural costs.

As bankers, you are interested in both landowners and tenant farmers. Their problems of costs are very different and your approach to each groups needs should be considered.

The tenant farmer was able to earn a rather good standard of living during the war and post war years. He had time to come to town and loaf some, while the hired man did the work. Those days are gone and the tenant farmer who cannot or will not accept this fact should not be farming. The same thing applies in many cases to his family. Many families used to produce a large amount of their own food but today that family is an exception. With labor costs where they are, home food production is not profitable unless it is on a family basis.

Many of the tenant farmers are not good business managers. When prices are high they get along but when present conditions exist many of them need help. The
only logical place for this help is with the bankers.

I would like to suggest that possibly the greatest single contribution every bank could make to the problem of reducing agricultural costs, would be to have very competent fieldmen. No bank is too small to have a man out in the farms, advising and helping their customers do a better, more profitable job of farming. The larger banks need several such men.

Agriculture today means a substantial investment in fixed assets. A farming outfit costs a lot of money. Machinery salesmen often sell a farmer more than he needs. Fertilizer is a necessity on many crops. However, there is a great deal of fertilizer sold that is not the right kind or at a fair price. An analysis of a farmers need for income, for protection, or for the best use of the land is needed by a qualified person. Banks furnish investment advice of this kind, but many do not furnish sufficient good country field men to help farmers with these decisions.

I would go one step further and predict that if bankers do not furnish this service that government lending agencies will come into the picture more rapidly. The growth of the Farmers Home Administration in the last two years proves this point. One of the qualifications for an FHA loan is that the farmer agrees to follow the advice of the Soil Conservation Service. In most cases he also works on a budget with close supervision of a field man.

Farming today requires planning ahead of time. Most farmers need to protect at least a portion of their income with contracted crops. Sugar beets, of course, are the base crop on most farms, but the acreage is by allotment and many farms do not have enough acreage or perhaps they are short of water. In some areas cattle feeders contract corn to be grown at a set price for corn silage. There are several areas in the state that grow pickles, or malting barley, or potatoes for potato chips or alfalfa for dehydrating, all on contract where all hazards are removed except weather.
Certainly these contracted crops usually reduce costs and I believe should be encouraged in every area.

Many farmers make a mistake in growing too many acres of feed crops. Livestock feeding is very desirable from many angles. It supplies fertilizer, it makes a winter job which should at least increase the labor income, and over a five year average it will produce a profit. The problem often develops that the farmer likes to feed livestock; therefore, he plants a lot of feed crops, which if he does not feed have very little value. This means that very often the farmer over extends himself in livestock risk to salvage a few dollars worth of feed. If a farm is particularly adapted to feed production, then a farmer should consider raising enough corn, barley or milo to balance his roughage feed.

This would mean that instead of feeding three hundred cattle, probably one hundred would be sufficient. In the first instance with three hundred cattle, the farmer raised all his roughage and bought all his grain at the elevator. In the alternate method he would raise all feed, both grain and roughage, so whatever the livestock brought above first cost would go to the farmer instead of the country elevators.

Animal agriculture is the soundest approach to our problem for the long pull. Dairying has always been a slow steady, dependable, but very sure way of farming. Livestock feeding is also sound, if light animals using principally farm feeds are purchased.

Looking at the farm problem from the landowners viewpoint, I would like to make the following suggestions.

First, I believe that landowners must reduce the amount of crop rent paid by tenant farmers, or in a very few years they will all be broke and there will be no one left to do a good farming job. The tenant is paying the same rent his father paid
thirty or forty years ago. His costs, labor, machinery, equipment depreciation have all increased to the point of vanishing returns.

We have worked out a lease with our tenants where we split the crop fifty per cent to each party. We, the landowner, buy all the seed, furnish all the water, pay one-half the beet labor, one-half the insecticide control, one-half the potato sorting and sacking and one-half the thresh bills.

This lease has helped our tenants materially and I would suggest it to any landlord who is able to do these things. Many farm owners are not able or do not want the responsibility of our lease. These people must be generous to the point of taking a smaller share of the crops. The landowner will say, "I can't do that, I am only making a small return on my investment now".

Very probably his land values must be reduced, so that he will be satisfied with his less return. Isn't it better to reduce these values to some extent, than to bankrupt farm tenants so that land has very little value because of no one to operate it? Undoubtedly you have seen many good business concerns go out because of no one to run them.

One of the places where costs can be reduced the most is by larger units. For example, an eighty acre farm in an irrigated area is no longer an economic unit.

The investment in equipment to operate the eighty compared to a 160 acre farm is practically no different. In many cases the 160 should be enlarged to a 240.

Today most business is depending on a smaller margin but a greater volume to keep it profitable. The tendency, whether we like it or not, is for all business to grow larger and the small backward corner store to be eliminated. Agriculture has become mechanized and today is a business. You must recognize that farm tenants have substantial investments in their equipment and the farms must be operated on a business volume basis to make a profit.
Landowners can and should make many other improvements and investments to make their farm a better, more profitable productive unit. Land leveling will conserve water, will increase yields, and will reduce labor in both farming and irrigating. Cement lining of ditches will save water, it stops erosion, it reduces labor in irrigating, it eliminates ditch shoveling and burning. Better buildings with modern conveniences will attract a better farm tenant. These same modern conveniences for the hired men will increase production because good men whose families are happy and satisfied will stay on the job longer.

Agriculture is our nation's biggest problem at the moment. Probably the next few years will also be difficult. We are fortunate in Colorado that most of our crops, with the exception of wheat, are not in huge surplus. The population trend is westward which is benefiting our area.

As a bank director myself, I believe we must recognize the facts of larger farm units, a readjustment of customary farm rents, more willingness by landowners to improve and increase their investment in their farmland. We must remember that farm income is based on volume times price less costs. We can do little about the price, so we must concentrate on volume and costs.
GROWTH OF CATTLE FEEDING IN COLORADO, CALIFORNIA AND THE SOUTHWEST. WILL MORE AND MORE LARGE Sized CATTLE FEED LOTS DEVELOP HERE IN IOWA AND THE MIDWEST?

It is a real privilege to attend your annual Iowa Cattle Feeders Day. Iowa State College has earned an enviable record amongst cattle feeders all over the country as being the leader in cattle feeding developments. Your fine new barns, elevator, yards, and equipment of all kind are second to none and I am sure you feeders are all proud of these facilities.

Dr. Burroughs has assigned me a rather broad subject. I will briefly outline the growth of cattle feeding in the west. I believe you feeders would also be interested in how the cattle are fed; what they are fed; how they are sold in order to compare western feeding to your own areas.

The sugar beet industry was introduced into the irrigated west between 1905 and 1920. World War I gave this new sugar industry a big boost about 1920. The by-products of the sugar industry, namely wet beet pulp and beet tops were the reason cattle feeding started in the western states.

This type of feeding was usually a winter operation. The feeder would buy a two or three year old steer and feed him for five to eight months, principally on wet pulp, alfalfa hay, cottonseed meal, and very little grain. These cattle were largely marketed at all of the Missouri river markets. They were cattle that were suitable for certain trade at that time. They would grade good and commercial by todays standards. The trade referred to them as "Collies" and they sold about two to three cents per pound below your good Iowa cattle of the same period. During this period California and the other mountain states fed a few cattle in the same
manner. However, a great proportion of the beef consumed in California prior to 1930 was grass beef.

In the period between 1920 and 1930 cattle feeders were pretty well eliminated because of the severe market breaks. Then after the liquidation, caused largely by the drouth of the early thirties, cattle feeding started to become more profitable and more scientific. In the past twenty-five years the changes in cattle feeding all over the country, but particularly in the west have been amazing.

Today sugar beet by-products are still important in western feeding but they are used in an entirely different way. Wet beet pulp is rapidly becoming a feed of the past. Most pulp is dried and fed as pulp pellets or as mixed feed. In this form, dried beet pulp becomes a grain substitute. Other crop by-products also are used, particularly in California. For example, cull raisins, prunes, almond hulls, cottonseed hulls, low grade potatoes, all of these products are used as a roughage base for cattle feeding operations.

I am sure the question many of you would like to ask is, "Why has cattle feeding grown faster in the west than in the midwest?"

I believe the number one reason for the large growth in western feeding is the tremendous shift in population to the western states. Do you realize that the United States is making a net gain in population of about 8,000 persons per day? About two thousand or one-fourth of this daily population gain is occurring in California and Arizona.

Do you know that California has slaughtered more cattle than any other state since 1951? In 1956 California slaughtered 2,586,000 cattle followed by Illinois which slaughtered 465,000 less. This is hard to believe when you think of the great
slaughtering facilities at Chicago and St. Louis. Iowa was the third ranking state. Next is Nebraska, then Texas and my own state, Colorado. Cattle slaughter in the eleven western states has increased 71.4 percent since 1951. Calf slaughter in the same area since 1951 has increased 104.9 per cent.

The large slaughter figures which I have just quoted are borne out by the cattle fed in the western states. Your state of Iowa, of course, leads the nation in number of cattle fed. You market approximately two million fed cattle each year. California is a close second with one and a half million fed cattle each year. Nebraska feed about 1,200,000; then Illinois with 1,100,000; then several western states in order.

Most of this western slaughter is consumed in the eleven western states. The exception is Colorado. We feed and produce surplus beef which is shipped to almost every city in the nation.

On January 1, 1957 there were in round figures six million cattle on feed. 26.4 percent of them were in western feedlots. 49.5% were in the midwest and 24.1% in the eastern corn belt. This is a total of 73.6% in the corn belt. Based on the 1956 turnover of cattle in feedlots, the year's total feeding will be 31% in the west and 69% in the corn belt. The annual marketings in California are about three times January first inventory. Colorado markets twice its inventory while the corn belt markets about 1.75% of the January first inventory.

While I am quoting some figures perhaps you would be interested in these. In 1956 we slaughtered 27.7 million cattle plus 13 million calves. 10.6 million of these were fed cattle. This amounts to 38% of the total number but because fed
cattle are heavier than average, it is estimated that last year 45% of all the beef consumed was fed beef. This should be definite proof that cattle feeding is a dynamic growing business and will remain as a big important enterprise.

There are many other reasons for the growth of cattle feeding in the west I will mention a few.

1. Increased freight rates on live cattle, dressed meat and feed have made it necessary to slaughter live animals as close to the point of origin as possible.

2. Growth of the large chain stores, who buy beef by the carload. This has stimulated the growth of the small packing plant, who slaughters nothing but cattle.

3. The refrigerated long haul truck which can deliver dressed beef from Denver to New York with a guaranteed third morning arrival.

4. The spread and acceptance of federal beef grading.

5. Price supports have tremendously increased the production of corn, barley and sorghum grains in the western states.

6. A better drier climate with more sunshine: which produces a reasonably stable feed supply each year because of irrigated farming.

7. A quick general acceptance by western feeders of modern methods. This is especially true because the feeders are all relatively new in the business and are looking for good new ideas.

These and many others are some of the reasons the western cattle feeding has grown. Actually many of the reasons given for the growth of the cattle feeding industry are true of the entire western economy. The eleven western states are enjoying a tremendous growth and will probably continue to grow faster than most other areas.
I have given you general facts about cattle feeding in the west compared to your area in the corn belt. There are both small and large feeders in the west. In Colorado many more cattle are fed by the small feeders than the large ones. This is also true in all the western states except California and Arizona and Texas. In these three states the cattle are almost all fed in large feedlots. A small farmer feeder usually feeds about one hundred head and he only feeds one bunch of cattle during the winter months. A large farmer feeder will feed up to 1,500 head per year. His feeding would be a continuous year round operation. There is still another group of feeders who feed their own cattle that are simply known as large feeders. They make a business of feeding cattle. Actually our own operation falls in this category. We actually run a beef factory. We buy most of our feed and all of our feeder cattle. We have a sizable investment in a feedlot site, a grain elevator, grinders, mechanical feed trucks and many kinds of specialized equipment. Our feedlot employees do nothing but feed cattle. Consequently they become very proficient at their jobs. Each week this beef feeding factory produces about 125,000 pounds of U.S. Choice Beef. These large feedlots vary in size from a yearly capacity of 2,000 head up to 100,000 head.

In California, Arizona, Texas, Kansas and Colorado there are many large feedlots known as commercial lots. These lots are operated on an American hotel plan, the room and meals are furnished. These feedlots have three different customers, who own the cattle, they are ranchers, packers and speculators. Sometimes the feedlot owners feed some cattle of their own but many do not. The feed is carefully weighed and charged to each pen, each day at the cost plus a handling charge. To this is added a charge per head per day for yard use, labor, overhead, veterinary service, salt,
These are usually large feedlots holding a minimum of 3,000 up to 40,000 or 50,000 head of cattle at one time.

Many of these custom operators furnish a complete service of buying the cattle, fattening them, sorting for market, selling the cattle at the feedlot and remitting the proceeds to the owner. A large portion of the cattle fed in such lots are sold at the feedlot direct to packers. They seldom ship cattle to a central market. Usually they will sell a pen of cattle to be delivered during the next week or ten days time at the packers' option.

These lots buy everything they use and they must operate at a profit for the owner. This would appear to make them very high cost operators. However, their ability to buy in large quantities: their relative small investment per head of cattle fed: their efficiency in the handling of the feed products with a minimum amount of labor; plus their ability to sell cattle to advantage to the packers because of the large numbers are all assets and help keep these lots competitive.

These large operations are based on volume and on averages. They sell cattle almost every week and day of the year and buy cattle the same way. For example I will again use our own feedlot. Commencing last July we bought cattle in eastern Colorado, western Kansas and in Nebraska. In August we bought more cattle in the same areas plus Montana. In September, October and November feeder cattle are available in every state. In December and January our supply is either mountain cattle that have been held back to use up some feed or they are early wheat pasture cattle. Wheat pasture and sorghum pasture cattle are usually available in Texas, Kansas, and Oklahoma during January, February, March and early April. Then in May and June feeder cattle come largely from central and south Texas.
California has a different supply situation than the other areas. They have a large supply of feeders available in the intermountain area during the late summer and fall in addition to their own California supply. Then again in the spring and early summer California has a very large supply of fleshy feeders in their own state.

The larger feeders usually buy their cattle through order buyers scattered in the various areas. Most of them are bought on the telephone. The feeder depends on the judgement of the country trader and he sees very few of his cattle until they are unloaded at his feedlot. The smaller feeders buy some cattle this way but usually they buy their feeder cattle at the central market or the country auction market. Practically all the cattle that are purchased in the western states for feeding are bought with the idea that at least 80% to 90% of them will grade U. S. Choice when fat.

The corn belt is rapidly moving west. In Colorado corn is becoming one of our major irrigated crops. In California they increased corn acreage 65% between 1954 and 1955. In the west a large acreage of corn is planted to produce corn silage. The large feeders contract with the farmers to grow silage for them. The feeder furnishes the seed and the machinery to harvest the crop. The farmer plants the crop, cultivates it, irrigates it and sells it standing in the field for $5.75 per ton this year. The average yield on these silage contracts is over twenty tons per acre every year.

Corn for grain is being raised in larger quantities each year. In county contests in Colorado we have many yields of 150 to 175 bushels of number two corn per acre. The large hybrid seed corn companies all have good distributors. We have fine corn picking machinery of all kinds including large drying machines.

In Colorado corn is only part of our grain ration. Most feeders use a mixture
corn, barley and milo. The mixture is changed from time to time to take full advantage of price changes in the various grains. In California and Arizona most of the grain used is barley because they raise large amounts of this grain. Being a warm area they can produce two crops each year on the same field. Barley is an ideal crop for this second or minor crop. However, both states are raising more corn and more milo each year and these grains are slowly becoming a more important part of their cattle fattening rations. In Kansas, Oklahoma and Texas milo is the important grain. There are many large feedlots in these states that feed no other grain.

The sorghum grains have been greatly improved in recent years. Oklahoma A & M College have some new hybrid varieties that they claim have more feeding value than corn. Because of the wheat allotments in these southwestern states they are turning to other crops. The sorghum grains seem to be their best possibility. I am somewhat worried about this tremendous extra production of feed grain. I believe all corn belt farmers should concern themselves with the many implications all of this new feed grain production may have in the future.

All of the western states have high quality alfalfa hay. This is used everywhere as dry roughage. In recent years the use of chopped green alfalfa has increased greatly. We also produce large quantities of dehydrated alfalfa which is used extensively by most feeders. Most of the dehydrated alfalfa is pelleted in 1/4 inch pellets and stored under inert gas storage. This sealed gas storage maintains the protein level from seventeen to twenty percent and the vitamin A level from 100,000 units to 150,000 units per pound. Many feeders like dehy so well they use corn silage as the only roughage with no hay in the ration. Dehydrated alfalfa is usually fed at a level of one to two pounds per day.

The question asked in the title to my talk today is "Will More and More Large Sized Cattle Feedlots Develop Here in Iowa and the Midwest?" My answer would
be a qualified yes.

This middle of the road answer requires some explanation. We must ask ourselves this question. What economic purpose does cattle feeding serve? I believe there are at least three answers. 1. It adds weight, producing more beef for consumers. 2. It raises grade. 3. It redistributes the seasonal supply of cattle for slaughter.

If you will think about these answers, I believe you will agree that all areas are going to stay in the cattle feeding business.

Your area, the corn belt is better suited to smooth out supply than any other area. You have grass pasture, where you can feed corn on grass. You have good pastures following oats or barley. You have green corn to chop or pasture. You have good fall pasture of all kinds. In the northern part of the corn belt you do some very short feeding and in the central and southern part you do some very long feeding to prime grade. This flexibility is highly important to the uniform distribution of beef during the entire year. When you realize that in the last quarter of each year, namely October, November and December, there are placed on feed more cattle than in the other three quarters put together: then you can see why the flexibility of the corn belt feed lots is needed. Contrast this flexibility to the standardized stereotyped feeding programs of the large western feedlot. It would seem to me that there is both room for and need for a variety of feeding areas.

I do not believe you can overlook the facts of the general tendency for all business units to get larger and more efficient. The day of the eighty acre farm is gone. Farm units must get larger in order to support the mechanical age we are living in. The poultry business has gone from the stage where the farmers wife made
pin money with her eggs and fryers. The turkey industry has seen the same revolu-
tion. The dairy business is changing rapidly from a two or three cow sideline to 
a specialized dairy business.

I certainly believe the same tendency will have to come in cattle feeding 
because it is constantly becoming a more competitive business. Farm income of any 
kind is based on Volume times price less Costs. We can do little about the price, 
so we must concentrate on volume and costs.

To sum up my remarks. No area has all the advantage. The western states 
have the climate, a good feed supply, and a good market outlet. The corn belt have 
their own feed: low cost labor because it is dovetailed with farming to minimize 
costs; and more flexibility because of various crops. I don't believe either area 
can beat the other at their own game.

I am firmly convinced that cattle feeding will continue to expand and remain 
as one of our greatest sources of agricultural income. The men who take their time 
to attend annual cattle Feeder Days in their own regions such as you men are doing 
today, will keep abreast of all the new developments that research provides.

You are the kind of men in any region who will foresee the trends towards 
larger units, for new and better feeds or methods. You are the men who will provide 
the leadership for Iowa to continue to be a dominant factor in beef production.
I have been asked to discuss the cattle feeding industry with emphasis and explanation on the tremendous growth of Beef Feeding, the new giant industry of the west.

The cattle feeding industry of the west is really a new industry which dates from World War II. Cattle feeding in the eleven western states has increased in the last twenty years almost five times. The transformation of feeder cattle into U. S. choice beef is no longer a farm sideline. Rather it represents a huge commercial feeding venture; which is another step in our specialized American agriculture.

The term commercial feedlot, in its narrowest sense, refers only to those feedlots which feed for hire, excluding a large part of the industry which feeds entirely for its own account. However, all large feedlots, which conform to the general pattern of mass fattening of large quantities of cattle under commercial conditions, are generally thought of as commercial yards.

While there are all shades and sizes of feeding operations, either single or integrated with stockyards, slaughter plants, chain stores, or even large ranches, the typical commercial feedlot is a separate business entity. To a western operator a feeding venture is spoken of as a commercial yard when it has a capacity of 1000 head or more, when it compounds its own feed, operates year around and purchases substantially all its own feed supplies. Capital investment for such a plant will range from $100,000. to $1,000,000.

The key to commercial cattle feeding is increased efficiency. Large numbers of cattle make possible a high degree of mechanisation in handling ingredients, mixing feeds, and actual feeding from self unloading trucks, all of
which means great savings in labor.

Better feeding efficiency is gained through better formulation of feeds, with closer control, and the use of the most economical ingredients. Better marketing efficiency is achieved by year round operation.

I am sure many of you have wondered how many of these yards there are, and what percent of the cattle are fattened in these feedlots. Actually these large commercial lots are the foundation of western feeding. Two-thirds of the annual fat cattle output of eleven western states is produced in the giant off farm yards.

In Arizona 27 feedlots produce 83% of the 400,000 cattle fattened in that state. In California there are 181 feedlots that meet the requirement of 1000 head or more. These lots feed 93% of the California total which is 1,300,000 head yearly. My state, Colorado, has 144 lots which produce 68% of the 630,000 annual turnover. The other states are not as important but the picture is about the same. In total, for the west we have 471 commercial feedlots turning out more than 2,300,000 fat cattle yearly, which is 64% of the total produced in these states.

Another interesting point is that these same eleven states produce approximately 4,600,000 feeder cattle yearly. The total fat cattle slaughter in the area is about 3,620,000 head, or a surplus production of feeder cattle of only a million head. With the growth of the west, it would appear to me that in a very few years you people in the corn belt will have to produce more of your own feeder cattle or bring them from the southeastern part of the country.

The basic reason for this rapid expansion is the general population shift to the western states. Los Angeles has over 6,000,000 people and San Francisco about 3,000,000. In fact the statisticians say that about 1970 or sooner, California
will have the greatest population of any state. This same population trend is true in all the western states.

Our western production is limited to our water resources. The western population trend will continue because of climate and living conditions. But as our cities demand water for their development, it reduces water for crop and livestock production.

I do not mean to imply that all of the cattle feeding is being done in the western states. The April 1st report plainly shows the large numbers of cattle on feed in the cornbelt. Using round figures, there were almost five million cattle on feed and about one million were in the western states. With the rapid turnover customary in these lots, it is generally agreed that about one-fourth of our fed beef is produced in the western area.

While I am comparing feedlot cattle numbers in various areas, I would like to present some very significant and far reaching facts on beef cow numbers. The low point in the cattle cycle was reached in 1949. Taking the 1920 - 24 period as a base, which is the first period records were kept, and then comparing it to 1954 - 1958, the last period of record.

The two most important beef cow states, Texas and Oklahoma, have increased beef cow numbers 25% while the U.S., as a whole, has increased 50%. These two states used to have 26% of all the beef cows in the country, now they only have 20%. The eight mountain states have declined from 21% to 17%. California, Nevada, and Arizona have decreased from 12% to 6%. The three regions --- the traditional range area of the west have been losing out in terms of their share of the national beef cow herd. In the base period, these states had 59% of the beef cows, now they only have 43%.
Your cornbelt area shows the reverse trend. You have increased beef cows from 25% to 27%. The eastern and southern states have increased from 16% to 29%. In summary, only about 60% of the feeder cattle are now produced west of the river. This trend is the exact opposite of the feeding trend.

The basic reason for the shift in beef cows is the diversion of price supported crops to animal agriculture. The same reason explains a great deal of the shift of feeding to the west. The substituting of sorghum grains and barley for wheat, corn, and cotton has materially added to the feed grains supply. The de-emphasis of the importance of corn as the principal feed crop will continue.

The geographic location of livestock population will become less important in the future as the cattle feed industry draws on a large variety of ingredients to get results in a more compact form. Lower labor costs will become more important than the location of the feed grain supplies. Beef production will become more and more a manufacturing operation geared to convert feed into food in the most efficient manner.

After all these beef statistics perhaps you would like to know of the six ages of man expressed in terms of beef. They are as follows: Beef Broth -- Ground Steak -- Sirloin -- Filet -- Ground Steak -- Beef Broth.

The shifts in cattle feeding and beef cow production which have been mentioned are not the only shifts in agriculture, but they are the ones we as cattle feeders are most interested in, and I believe they point the way to a better use of all of our agricultural resources for the future.

The proper use of all land in the United States is highly important to future generations. Fifteen years from now, we will need forty to fifty per cent more food than we do today. A large per cent of this new food demand will be for beef.
We will need more beef cows to produce more feeder cattle. The west cannot support many more beef cows because of our dry, arid climate. If beef keeps its important place in the American diet, then beef cow numbers need to be expanded forty per cent in the next fifteen years. In order to do this the midwest and the southeastern part of the country will need to return millions of acres of land to grass, the great healer. Then cattle, the great provider can forage the grass and we can produce the kind of food Americans like best.

The future of American agriculture must be in this direction. Our citizens must continue to be the best fed people in the world. Therefore, it seems to me that the future of the cattle industry is absolutely assured. Certainly it will have its ups and downs and its cyclical trends, but as the beef cow population moves east, these trends will flatten out. The main reason for the wide swing in cattle cycles has been the weather pattern. The new areas of beef cow expansion are not nearly as subject to drought as the west has been.

All of the things that I have been discussing are relatively new in the last twenty years. One hundred years ago one person provided food and fiber for himself and three others. Today one farm worker produces food and fiber for himself and twenty others. Do you want to go back a hundred years? Without this increase in farm efficiency, industry could not have developed so rapidly because of lack of manpower. About seven million men have moved from the farms to industrial jobs. Many people bemoan this fact that the family farm is going out of existence and workers must leave for the city. Actually this farm migration to the city is a sign of strength and efficiency in agriculture rather than a weakness.

We are very fortunate in the beef business. We happen to be producing a product that is well accepted by the public. It lends itself to modern merchandising,
it is a flexible product that can consume varying amounts of feed depending upon the season. It is a good supermarket item.

In my opinion, the biggest threat to beef in the future is the steady increase in poultry consumption, which has doubled in the last twenty years. Why? Because they modernized their product. They have produced a constantly better product, and the price has been attractive, all because of the efficiency of the poultry industry.

The future of beef production is going to be most interesting. Many new ideas are beginning to appear on the horizon. For example, one of the major packers is going into a five year artificial cattle breeding program. This packer is selecting bulls that have proven ability for efficient conversion of feed to meat. You people in Iowa are familiar with this type of program with dairy cattle and how effective it has been. I understand the same idea is being used in your state with hogs to great advantage. If this five year beef production plan is successful, and I believe it will be, then our beef production business could be revolutionized almost over night. The dairy business has shown the advantages of the artificial insemination program and this has all happened in the last ten years.

Men like Dr. Wise Burroughs at Iowa State College are going to find more feed additives such as stilbosol. This product and others will give greater and faster gains from the feed.

The super markets and chain stores are insisting on an even more uniform product in steady supply every day. They are also working on less cuts of meat. Both the markets and the slaughters are studying automation and how they can increase their efficiency.

At the American National Cattlemen’s Convention last January in Oklahoma City, Larry Hilaire, President of the National Restaurant Association, told us that
quality and product control would greatly stimulate restaurant sales of beef.
The need of the restaurant man is to be able to buy his cuts of beef in portion
cuts ready to cook and serve. Labor is the great problem in the restaurant
business. Probably one of the big reasons for the great interest in meat tender-
izers at the moment is because the meat is cut into portions and tenderized
before delivery to the restaurant. Mr. Hilaire made a statement which I
believe is the key to the continued popularity of beef. He stated that ground beef
was the common denominator of the restaurant industry, and that they consumed
millions of tons of it every month with great consumer acceptance.

Speaking of ground beef, have you heard of the gent who discovered a
way to improve the flavor of salt? He sprinkles it over a good thick steak.

In summary, the cattle feeding industry is a dynamic, fast moving business.
The regions and the men that can foresee the trends and adapt to the changes
ahead of other areas will fare the best in this new era of specialized American
Agriculture.
FUTURE DEVELOPMENTS IN CATTLE FEEDING

Indiana Cattle Feeders Day - April 24, 1959

My subject is entitled, "Future Developments In Cattle Feeding." This allows me to talk on most any phase of the cattle feeding industry. I will attempt to show how important our industry is; how much improvement has been made, and what I believe the future may hold.

Cattle feeding originated here in the eastern cornbelt. Most farms found it profitable to feed a few cattle as part of the total farm operation. The cattle were fed whole corn and hogs followed the cattle. The purpose of the cattle feeding was to consume the corn that had been raised and convert it to beef; which was more saleable than the corn.

Cattle feeding has come a long way since those early days. Your own Dr. Beeson talked to the annual convention of the American National Cattlemen's Association in Omaha last January. He told the convention of the feeding test run here at Purdue last year which compared two identical twin calves on a 1908 ration and a 1958 ration.

The 1908 ration contained whole corn, linseed meal, timothy hay, and salt. The 1958 ration contained ground ear corn, molasses, supplement A, Aureomycin, Terramycin, Tran Q, and they were
implanted with stilbestrol. The twin fed the 1958 'know how' ration, gained 42% more on 30% less feed at 33% less feed cost. Do you realize that it has only been a very few years that you have even heard the names of the products contained in the 1958 Ration. Aureomycin, terramycin, Tran Q, supplement A, and stilbestrol have not been in your livestock vocabulary very long.

These results tell a graphic story of what has happened and the advance the industry has made in fifty years. Actually, most of the advance has come in the last twenty years or even less. Certainly the future of cattle feeding looks bright when we are making this kind of progress.

To look ahead at probable future developments in cattle feeding, we must consider several phases of the entire cattle industry.

1. Our total cattle inventory.
2. Public acceptance of our product - 'beef.'
3. Improvement in the efficiency of cattle to convert feed to beef.
5. Shifts in the cattle population.
6. The change of cattle feeding from a sideline to a major business in many areas.
7. The greatly accelerated research programs at almost every college on cattle nutrition.
The cattle inventory on January 1, 1959 was 96,851,000, a new all time high. Of this total, 64,025,000 are beef cattle. This is almost two million more beef cattle than we have ever had before. We are in the expansion phase of the cattle cycle; therefore, these numbers should rise moderately in the next few years.

Most experts agree that beef cattle numbers will expand for several years. Large supplies of feed grains are in storage and eventually must be consumed. Many crops which have enjoyed high support prices will not be as profitable at a lesser price; therefore, this land will likely go to forage crops and eventual beef production. These changes, plus many others have every indication that the supply of beef animals for feeding will gradually be increased. This means that our raw material, feeder, cattle, will be available in sufficient numbers to continue to supply an ever larger amount of fed beef.

The April first cattle-on-feed report has just been issued. There are several significant facts in this report. We have six per cent more cattle on feed than a year ago and the largest number for April first on record. Last year the number on hand April first was the largest ever. This continued growth of cattle feeding each year is a very important contribution to all beef consumers and to all phases of agriculture.

Beef consumption per capita has greatly increased from 62.7 pounds per capita in 1951 to 87.3 pounds in 1958. Apparently, the consumers will buy beef at a relatively high price up to about a ninety
pound per capita consumption rate. However, these consumers want a relatively stable supply of beef from month to month and they want the right kind of beef. The consumer preference of beef over other meats has been increasingly apparent since the war. They will buy more beef with less price discount than they will buy either pork or poultry.

This fact of beef preference is most encouraging for the future of the cattle industry. However, this same fact presents a challenge that cattle feeders must try to smooth out supplies at a high per capita level, so that the industry can realize the full potential of this consumer preference. This consumer preference has been developed by an ever increasing steady supply of uniform quality fed beef. The percentage of cattle slaughter, which are fed cattle, has increased steadily in the past years. This year well over fifty per cent of the total cattle slaughter will be fed cattle. Probably in the next decade all slaughter cattle, with the exception of cows, will be fed cattle. These facts make it evident that the cattle feeder must assume more of the responsibility of giving the consumers exactly what they want.

Consumers are insisting on smaller cuts of beef. The beef must be tender. It must have had considerable feed, in order to have good flavor. The consumer wants all these qualities, but she doesn't want any excess fat. Here is a real challenge to all segments of the feeding industry. We must accept the responsibility of trying to produce this
ideal animal for the consumer. Whenever we put cattle in our feedlots we should have this ideal in mind. If the cattle industry will accept the responsibility of giving Mrs. Housewife as near perfect beef as possible, then future beef consumption will be much higher. This will require expansion of the entire cattle industry.

Certainly we are making progress in breeding feeding efficiency into cattle. This is a long, slow process with many problems; however, there are many favorable signs.

The large artificial insemination program sponsored by a major packer may have extremely far reaching results. The artificial breeding program has been highly successful in the dairy industry. The number of milk cows has declined steadily but milk production has increased significantly. One of the principal contributing factors to the much higher milking efficiency is artificial breeding. The possibilities in beef cattle are even greater. The problems, of course, are more difficult but they are not impossible. As these problems are solved, perhaps artificial insemination will contribute the greatest single boost in feed efficiency.

Perhaps this is a statement that will be challenged by many people. The reason I am so enthusiastic about the program is because of the time element. The artificial insemination methods, if practical, could save the beef cattle industry twenty or thirty years in really improving the gainability and overall beef production efficiency.
The trend of recent greatest expansion in beef cattle numbers is here in the North Central States and in the Southern States. This expansion of beef cattle will continue rapidly in both areas. Herds are smaller in these states than they are in the west. The pastures are smaller, better watered, and the carrying capacity per acre is much greater.

These physical advantages in your areas should make the artificial breeding program particularly attractive. If the program proves to be as successful as hoped, your areas could be leading the nation in beef production.

There are many breeders interested in the weight for age theory of beef production. Many others are following the progeny testing method of only selecting animals that are superior in growth ability. Many breeders are trying crossbreds of many kinds. All of these programs and others not mentioned are all contributing to the goal of more efficient beef production. We have bred cattle too long for appearance. We have been overlooking the basic objective of converting feed to beef with emphasis on the kind of beef that the consumer wants.

Many of the western colleges are doing a lot of research on traits that are hereditary. For example; tenderness of the muscles which produce the steaks is governed a good deal by inheriting these qualities. Many universities are doing major research on meat.
Actually, this field of meats research will definitely add to the progress of beef improvement.

We are well started in a revolution of agriculture. Every agricultural industry must become as efficient as possible in order to compete with other foods and products. Our farm lands will have to be operated on the theory of the best possible land use for that particular area.

The competition of other foods, particularly pork and poultry, is going to force very rapid improvement in efficient beef production. Cattle feeders who are on their toes will have an opportunity to cash in on these developments in the next few years.

Let your imagination run ahead twenty years from now. At that time, I believe a cattle feeder will be able to buy animals that are much superior against today's best feeders. For example; today, if you buy one hundred calves from a rancher, you will probably get calves sired by four or five bulls. When you buy a hundred calves twenty years from now, you will likely buy them from a herd which has used artificial insemination for say ten years. The cows will all be at least three-quarters full sisters. The same bull would have sired all of the cows. This one bull would have all the good qualities that science could breed into him. Every calf would produce tender beef. Every calf would have the maximum amount of high-priced cuts. Every calf would have the characteristics that produce high yielding carcasses. Every calf would produce twice the daily gain we now get. Can you imagine the uniformity
in appearance and feedlot performance these calves would have?

Doesn't it make you anxious for the day when you will be able to buy that kind of feeders?

Following this illustration one step further. Imagine the reaction of the super markets to this superior beef carcass. The uniformity of cuts, eating quality, and appearance would certainly give beef top billing in their stores. The consumers would recognize the superior product and surely beef consumption would increase. If these assumptions are true then cattle production and cattle feeding are going to become a much more important part of american agriculture.

The population of the United States is growing at the rate of approximately three million people per year or slightly over eight thousand per day. This increase in population is not staying put in the areas where they were raised. A large per cent of this new population is moving either west or south. A few large city industrial areas, such as Chicago, are growing, but the big shift in population is and probably will continue to be west or south, where there is better weather with more sunshine; which give people better living conditions. California and Arizona are getting about one-fourth of this population increase. About two thousand new people arrive daily in these two states.

This increase in population and the shift into new areas has changed the complexion of cattle feeding very noticeably in the last ten
years. The three million new customers make a new market for approximately 400,000 steers, weighing one thousand pounds each, every year. This yearly increase soon gets into large numbers. Ten years from now we will need to feed an additional four million cattle. This is based on today's consumption rate. As our country develops and income increases people will demand a higher quality diet. This means more and more animal products. Many people fail to realize what a higher quality diet will do for beef production. I would go way out on a limb and make a prediction that on January 1, 1969 we will have twelve million cattle on feed rather than the six million we had in the feedlots this year.

The growth of cattle feeding in the west has been phenomenal in the past ten years. This year, about one-third of the fed beef will be produced in the Western States. The new April first cattle-on-feed report shows feeding up 23% in five western states, compared to six per cent for twenty-one states reporting, and the main cornbelt only even with last year.

The increase in western feeding can be traced to several reasons. First, the increase in western population; second, a greater than average per capita consumption of beef; third, the tremendous increase in feed grain production in these states; and, fourth, the growth of the very efficient large feedlots, which handle thousands of cattle yearly on a continuous flow program.
The same phenomena of growth is now getting underway in the south. They produce a surplus of feeder cattle. They can and will produce a great deal more grain. They have a large population whose income has improved tremendously as consumers. These Southern States cover a large area twice as big as the cornbelt. Their weather is mild, consequently they can get into all phases of the cattle business cheaper than most areas.

Cattle in the Southern States is a "forced choice" as they are rapidly adjusting from a cotton economy to a livestock economy. I would again make a prediction that the cattle areas to watch in the future, both as producers and cattle feeders, are the Southern States. They will be real competition for everyone.

The west has led the way in operation of large cattle feedlots. The continued growth of cattle feeding in the west is largely confined to new lots which are constantly being built. For many years there has been a question whether these lots could compete with the farm feeders. Time has proven that large feedlots feeding cattle on a constant turnover, where beef is produced every month of the year, are very successful. This mechanical age, plus the modern feed additives, have given large feedlots a permanent place in the cattle feeding industry. The efficiencies obtained with large numbers, reduced labor, mechanical feeding, better balanced feeds, will spread to the cornbelt. The farm feeder will not be eliminated but he will surely have competition.
Actually it is the phenomena of the transition of cattle feeding as a farm sideline to a major agricultural business. There are hundreds of successful feedlots in the west. If the business was not economically sound these feedlots would not have been built in many states. These are the kind of feedlots that are being built in the south. I firmly believe that in the next few years you will see the same trend to larger feedlots develop in the midwest.

In closing my remarks, I want to give credit to the wonderful college research work on cattle feeding problems. Remember the difference in the 1908 gain and feed cost compared to 1958. Today you have seen and heard of the new work which your college has been doing in the last year. Again, there was more progress. All of the agricultural colleges are making a tremendous push on cattle nutrition. Poultry and hogs are more efficient in their conversion of feed to meat than cattle are. The reason largely lies in the fact that the colleges worked out their problems first because they were easier and cheaper. However, now the emphasis is on beef. With the ability and energy of the college research men, dedicated to better beef production, the cattle feeding industry will move ahead rapidly in the future.
It is obvious that I am optimistic about the "Future Developments In Cattle Feeding." How can anyone help but be optimistic when he looks at the record of the past, and then looks forward. The wonderful research work conducted by many universities has been accelerated in all fields. The research men, who have furnished the "know how," are digging deeper into the secrets of nature and science. The bright future of cattle feeding lies entirely in the hands of scientific research. I would again venture a prediction that in another twenty years we will have added another strange vocabulary to our feeding language.

Surely, this great industry of ours will continue to progress and prosper, and contribute to the health and well being of mankind.
Cattle feeding has been a good business for many, many years. Most of the feeders in the Cornbelt states are grandsons or great grandsons of the early cattlefeeders. Most Cornbelt farms have a dual economy. They raise corn to feed to hogs and cattle. Pork production is their primary business and cattle feeding is secondary. Cattle are used to balance the supply of corn.

The Cornbelt states are great fertile areas located in a very strategic place. They are relatively close to the large eastern consuming centers and the transcontinental railroads from west to east have given the area tremendous transportation advantages.

The great central market system was built in this area. The reason, of course, was the large supply of livestock and the railroad centers. Chicago became the headquarters of all the major packers. The Missouri river markets; Kansas City, St. Joseph, Omaha, and Sioux City were the markets for both their fat livestock and the purchasing points for their feeder livestock. This trend followed west to Denver. The Denver market was established seventy-five years ago, primarily as a feeder market. It has now become a very large slaughtering point.

The second phase of marketing developed in the Cornbelt states with the advent of the interior packer. These smaller independent packers established plants throughout Iowa in the heart of the pork production areas. Iowa leads all areas in meat production. They feed twice as many
cattle as does California, the second state. Iowa produces about forty percent of all the pork. The success of these interior packers started the decentralization of the livestock business from the concentrated Cornbelt area to all parts of the United States.

Progressing toward the present, the significant change in livestock production and marketing came with the development of truck transportation. The flexibility of the truck made it possible to move cattle north or south quickly and easily, which had not been true before. Trucking of livestock has made possible cattle production and feeding in any area. In my opinion, truck transportation is the primary factor for the rapid growth of cattle feeding in the western states in the last 30 years. Actually, the reason the west never developed large central markets is because they have not needed them. Good highways and truck transportation have decentralized both marketing and slaughtering.

The growth of cattle feeding in the last 30 years has been primarily in the western states. California now feeds more cattle than any other state, except Iowa, and California slaughters more cattle than any state. Colorado rates about sixth in both cattle feeding and slaughtering. Your northwestern states, Washington, Oregon and Idaho, are growing very rapidly in the last ten years. Literally each year since the end of the Korean war, which removed price controls, there have been more cattle on feed each January first than the previous year. Practically all of this increase has come in the western states.

I have been outlining where we have been in cattle feeding and
some of the reasons for the development of the business. Now we need to assess where we are today. Why this rapid increase in cattle feeding? Is this new cattle feeding business permanent?

Probably the most important reason for the rapid growth of cattle feeding has been the revolution in food merchandising. The chain store or super market with self service meat counters has demanded fed beef of uniform quality every day of the year. Beef production used to vary from month to month, both in quantity and quality. Grass beef was consumed many months of the year. This is no longer true. The American consumer has demanded and has been supplied with fed beef the year around. Apparently the consumers like fed beef better, because the per capita consumption is constantly increasing. Not only is the consumption increasing but our product Beef enjoys the position of being the most desirable food in the market place. The beef production business today is the envy of American agriculture. It is the responsibility of groups like are here today; to see that beef remains on top as the most desirable food.

Now, where do we go in the cattle feeding business in the future? I would flatly say that I know of no business that has a brighter future. To justify this statement, we need to assess our present knowledge of beef production, plus the tremendous extra push of every university in the country to improve the beef business.

Cattle are the largest and most expensive of our domestic animals. They also have the longest life cycle. These facts have delayed the
research on cattle and beef. The development of the poultry industry is positive proof of the value of research. The poultry industry is today the great competitor of red meat. Poultry can be produced with a much greater feed efficiency than beef can be produced. The fantastic growth of poultry is due entirely to a splendid research program. This complete knowledge of poultry has skyrocketed its production to the point where almost half as much poultry as beef is consumed.

The pork industry has had much research and improvement. New strains of meat-type hogs which, again, convert feed more efficiently have been developed. Year around farrowing has taken the seasonal variance from the pork market. The lard production in hogs has been drastically reduced. New, fast curing of pork products has made pork much more competitive with beef.

The fact I want to illustrate is that poultry research is complete to the point where only small refinements can be made. Pork research is well on the way and the industry has changed from a sick business, with many problems, to a very sound, profitable operation. Pork research will make its products much more competitive in the future. Beef research is just being launched. We literally have our whole future ahead of us.

In the last ten years we have had a sample of what beef research can do for the industry. We have feed additives, antibiotics, systemic dips, tranquilizers, new knowledge of trace minerals, and much new knowledge on high concentrate rations. Every cattle feeder is using at
least some of these new products. Everyone agrees that these new products of research have helped our efficiency and cut our costs.

I am sure everyone here feels that we will find at least as many new products in the next ten years. How can you help not being excited and optimistic of the cattle feeding industry when you think of it in this way?

The fundamental basic research in cattle nutrition and cattle breeding will open up vast new opportunities in cattle feeding.

In the last year, something new has developed in the cattle business. Many people have realized for the first time that we are producing beef, not cattle. Everyone in the business must get this new philosophy that the important thing is to get better beef on the rail.

Ranchers must produce better feeder cattle. This is a big order, but it must be done and done quickly or other competitive foods may take some of our market.

Feeders must feed their cattle to get the most out of the cattle and produce superior beef. No longer can they feed cattle to excessive weights in order to use up a corn crib.

Dual grading offers more to the rapid improvement of beef production than any other single thing. If you agree that beef production is important, then you must agree that in order to get superior beef you will have to pay a premium for superior carcasses. This is impossible under our present grading standards. When you can prove
that one beef carcass grading choice actually has a cut-out value of twenty-five to fifty dollars more than another choice carcass, then there should be a system to pay a premium for the high cut-out carcass. This is exactly what dual grading does.

We have a new beef slaughtering plant in my home town, Greeley, Colorado. It is one of the finest, most efficient plants in the country. They slaughter three to four thousand cattle weekly. Recently, they took advantage of the offer to try dual grading in their plant. For three weeks, all of the cattle slaughtered were dual graded both alive and in the carcass.

The results of this slaughter test on several thousand cattle was very interesting. They found that beef carcasses could be graded as fast or faster using the dual system. They found that fed cattle definitely graded higher. They found that most fed cattle fall into three number groups, instead of ten. They sold carloads of dual graded choice beef that had good acceptance at the retail level.

I well realize that my enthusiasm for dual grading will not please everyone in attendance. I would urge anyone who disagrees to take another look at dual grading and what it could accomplish.

I would predict that the cattle business will never reach its full potential until a dual grading system of some kind is adopted.

The future of the cattle feeding industry is almost unlimited.

Please note, I said almost unlimited.
In closing, I would like to mention the reasons why I said almost.

1. Continue the trend to light young cattle. (Heavyweight, overfat cattle are market breakers.)

2. Change show and judging standards to fit ideal beef carcasses.

3. Support the dual grading concept of paying for the cut out value of beef carcasses.

4. Pay the producer a premium for a superior beef carcass. Urge him to produce more.

5. Demand and support research at all levels on the production of Better Beef and Cheaper Beef.
See 2nd pg.

Paris, France

CENECA

INTERNATIONAL

SYMPOSIUM
Cattle feeding in the United States is our largest agricultural business. Out of the fifty states in the United States cattle are fed in forty of these states. On January 1, 1967, our feedlots contained 11,136,000 cattle. Currently, we are slaughtering cattle out of feedlots at a rate of slightly less than 2,000,000 head per month. Approximately seventy percent of the beef consumed is fed beef.

I live in a western state, Colorado, which today is the fifth largest beef finishing state. The feedlots vary in capacity of one hundred head up to one hundred thousand head on feed at one time. These feedlots operate on a continuous turnover basis; buying and selling cattle every week of the year.

Since 1930, we have doubled the consumption of beef per capita in the United States from about fifty pounds per year to over one hundred pounds for every man, woman, and child in 1966, the year just closed. The astounding part of this accomplishment is that we have doubled our consumptive supply, yet our basic cow herd is no larger than it was forty years ago.

Today, our cattle industry is geared to produce U.S. Choice beef. Our people like the flavor of fed beef and will no longer buy grass beef.

Corn is the most important of the feed grains used in our country; milo or sorghum is second; and barley is third. Corn silage is the most important roughage in the cattle feedlots.

The future of cattle feeding in the United States seems to be assured. Every year there is an increase in the number of cattle fed. Since fed choice beef has been available for everyone on an everyday basis, the American consumer has proved with their pocketbooks that beef is America's number one food.

I have a few suggestions I would like to make of how some our cattle finishing methods might be of value to you. Most of the steers I saw at the LaVillette market were big steers -- three, four, and five years old. If these older steers were slaughtered at an earlier age, there would be more grass for more cows, which would raise more calves, which would produce more beef. This speedup in the total cattle herd would make a more profitable cattle industry.

You have the finest basic herds of all breeds to be found anywhere in the world. You have very excellent dairy herds, which are basic to your economy. The crossbreeding between dairy and beef animals, commonly practiced in all European countries, is the most efficient production of beef possible. Your acceptance of crossbreeding by leading producers of all breeds is far ahead of the United States.
The Present Status of Cattle Feeding

Presented by William D. Farr
Greeley, Colorado

It is a rare honor and a great privilege for me to appear before you this morning, and participate in your International Agriculture Show. In June of last year, Mrs. Farr, our youngest son, and I were members of the Western Livestock Journal's European Beef Industry Study Tour. We visited cattle producers in Ireland, England, Scotland, Denmark, France, Switzerland and Italy. With the knowledge gained on that trip, I believe I have a reasonably good idea of cattle production in these countries.

While in France, we stayed overnight in Paris. Everyone enjoyed the show at the Moulon Rouge. The next morning a visit to the LaVillette market. That day they had 3,500 head of cattle, so I saw a good sample of your slaughter cattle. The tour went to Nevers to spend four days visiting seven of your excellent Charolais herds. We thoroughly enjoyed driving through your beautiful countryside. The gracious hospitality of the many people visited will never be forgotten.

I realize that cattle feeding in your country is quite new and only a small percentage of your beef supply comes from feedlots. I will try to tell you about cattle feeding in the United States; how it has grown in importance; what it has done for our beef supply; and how we view the future of the cattle feeding industry in the United States.
My subject is "The Current Status of Cattle Feeding." Cattle feeding in the United States is our largest agricultural business. There are a total of fifty states in the United States and cattle are fed in forty of these states. On January 1, 1967, our feedlots contained 11,136,000 cattle. Currently, we are slaughtering cattle out of feedlots at a rate of slightly less than 2,000,000 head per month. Approximately seventy percent of the beef consumed is fed beef. Literally the only grass beef consumed in the United States is cow beef. Most of this cow beef goes either to manufacturing beef or to ground beef. In fact, over one fifth of the total beef consumption is ground beef. The United States consumers, particularly the younger generation, have a tremendous appetite for hamburgers.

Cattle have been fed in the United States for about one hundred years. However, the great increase in cattle feeding has occurred in the last twenty years. Prior to 1930, almost all fed cattle were produced in Midwestern United States, commonly referred to as the Cornbelt. Most of the farms in that area found it profitable to feed a few cattle as part of the total farm operation. The cattle were fed whole corn and hogs followed the cattle. The purpose of this cattle feeding was to consume the corn that had been raised on the farm, and convert it to beef; which was more saleable than the corn.

About 1930 cattle feeding began to expand to other areas of the United States, most of the increase occurring in the western states. I live in a western state, Colorado, which today is the fifth largest beef finishing state.
The western states finish cattle as a business, not as a sideline to farming. Feedlots vary from a capacity of one hundred head up to one hundred thousand head on feed at one time. These new and larger feedlots make full use of all the modern methods available. They are really beef factories. These feedlots operate on a continuous turnover basis. They buy and sell cattle all through the year. The larger feedlots sell finished cattle every week and purchase new feeder cattle every week.

This discussion raises the question: What economic purpose does cattle feeding serve?

1. It adds weight to young animals rapidly, producing more beef for consumers.

2. It raises the quality of the beef.

3. It redistributes the supply of beef from a seasonal peak during the grass growing months to a more steady and dependable supply, thus attracting consumers.

To emphasize the first point. Since 1930 we have doubled the consumption of beef per capita in the United States from about fifty pounds per year to over one hundred pounds for every man, woman, and child in 1966, the year just closed. The astounding part of this accomplishment is that we have doubled our consumptive supply, yet our basic cow herd is no larger than it was forty years ago.

When beef is produced largely on grass and fodder, the animals are seldom slaughtered before they are three years old and frequently this age gets to be four and five years.
The young animals are the fast growing, efficient converters of feed to meat. As they get older it takes more pounds of feed to produce a pound of beef. Our beef industry has gradually changed to a cow-calf and yearling cattle economy in the United States. Many weaning calves go directly from their mothers to the feedlot. These cattle are usually fed from eight to fifteen months, depending on feed supply. They are slaughtered weighing about 1,100 pounds, at an age of fifteen to twenty months. Some cattle are being pushed harder and slaughtered around one year of age.

Other areas, where grass and hay are abundant, buy weaner calves in the fall, carry them through the winter and sell them the following fall. These cattle are called yearlings although they are usually about eighteen months old when cattle feeders buy them. Cattle handled in this manner weigh from six hundred to eight hundred pounds. The feeder rapidly finishes these animals in five to six months, usually at a weight of about twelve hundred pounds. The slaughter age varies from twenty-four to thirty months. The percent of fed cattle slaughtered that are over thirty months of age is less than ten percent.

The American people used to eat grass beef several months of the year. Seasonally, they could buy fed beef in their local markets. The large supermarket type of stores, which are just starting in your country, want uniformity of product. They like to have the same quality every day the year around. This is only possible with fed beef. Therefore, one of the chief reasons for the rapid growth of cattle feeding in the United States has been the rapid growth and change of retail markets.
Today, our cattle industry is geared to produce U.S. Choice beef. The Department of Agriculture has developed uniform government grading standards for beef. Government graders are available on a voluntary basis for all slaughter plants across the country. This gives us the same quality of beef in New York, or California. This choice quality grade of beef is what our consumers have proved they want. It is fat enough that some trim and waste is required. But our people like the flavor which the feed gives the meat. They will no longer buy grass beef.

The third point mentioned was the redistribution of beef to a steady supply. This has added much price stability to our beef markets. Price stability raises consumption. Restaurants, hotels, all eating places like stability in menu prices. Stores like uniform supplies and reasonably stable prices. They do a better job of merchandising when supplies are available constantly.

Of course, another reason why cattle feeding has grown so rapidly in the United States is the wealth of new knowledge on cattle nutrition which our universities have developed in the past thirty years. For example, the synthetic hormone called stilbestrol is used orally or implanted in the ear of at least ninety percent of the feedlot cattle. This product increases feedlot gain almost ten percent.

Vaccines, antibiotics, systemic dips and sprays, insecticides, internal and external parasite controls, are used extensively by all feeders. These products increase gain efficiency for the feeder and produce a better finished carcass for the consumer.
Cattle feedlots are located in all types of climates, varying from the deserts of California and Arizona to the heavy snowfall areas along our northern border. The various states use many different feeds and combinations of feeds adapted to their part of the country. However, with proper nutritional balance the same basic quality of beef is produced in all areas.

Our country uses all of the feed grains. Corn is the most important; I believe you call this maize. Milo or sorghum grain is the second most extensively used. Milo production is expanding more rapidly than any other feed grain. Barley is third in importance. Many areas feed a combination of any two or perhaps all three. Wheat is too high in price for us to use as feed grain. Occasionally some inferior quality wheat is fed with good results.

Corn silage is the most important roughage in the cattle feedlots. Silage can be made from corn or any of the grain sorghums.

Hay has declined in use largely because of the lack of labor and the costs involved. In many areas, particularly where rainfall is plentiful, hay is now being put into silos and fed as haylage.

Cattle feeders use the by-products of many industries. For example, in Colorado we raise sugar beets. All of the beet tops are used and more important is the dehydrated beet pulp. In California, the surplus vegetables, raisins, almond hulls, cottonseed hulls and other feeds are used. In Hawaii, they use the by-product of the pineapple industry. Pineapple bran is their main roughage. In Idaho, the off-grade potatoes are chopped and fed to cattle as roughage. There are many other examples, but my point is that we don't waste anything that is possible to feed.
Protein in the proper ration is, of course, a necessity. The vegetable proteins - soybean meal, cottonseed meal, and linseed meal - are used extensively in that order of popularity. Dehydrated alfalfa meal is also used for both its protein and vitamin A content.

Urea, the nitrogen compound which the paunch bacteria convert to protein, is being used very extensively. We, personally, secure a high percentage of our protein from urea. It costs less and the gains are just as good.

Most cattle feeders buy some type of protein pellet which a feed company has made. All of the trace minerals, calcium, phosphorus, vitamin A and D, stilbestrol, and antibiotics are included in this protein pellet; which usually analyzes about thirty-two percent protein.

I have briefly covered the history and growth of the cattle feeding industry. The importance of the various feeds, the wide geographic locations of cattle finishing; the fact that cattle feeding has doubled beef production with no increase in the cow herd; all of these broad areas have been mentioned.

The future of cattle feeding in the United States seems to be assured. Every year there is an increase in the number of cattle fed. Since fed choice beef has been available for everyone on an everyday basis, the American consumer has proved with their pocketbooks that beef is America's number one food.

Now with your permission, I would like to tell you a little about our own personal operation. I believe that a description of how we feed cattle in our feedlots is the best way to help give you ideas.
My home is in Greeley, Colorado. This is the county seat of Weld County, one of the top ten agricultural counties in the United States. The area is a very fertile plain lying east of the Rocky Mountains. The elevation is about 4,800 feet above sea level. Our agriculture is all irrigated. The mountains have a heavy snowfall; when it melts and runs off the water is collected and stored in reservoirs for later regulated use.

Farr Farms Company own several farms in the area. The average size of these farms is 240 acres each. Sugar beets, potatoes, corn for both grain and silage, and alfalfa hay are the crops grown. About 300 cattle are fed on each farm. In addition, a large central feedlot with a capacity of about 8,000 head of cattle is located near Greeley. Our cattle on feed inventory is usually maintained at about 10,000 head at all times.

Many feeder cattle are raised within 200 miles of Greeley, so there is a good local supply. About one-fourth of the year's feeding are local cattle. The balance are trucked in from many other areas up to one thousand miles away.

The first day after arrival, the animals are vaccinated for blackleg, rhino-trachitis, and leptosplerosis. The cattle are then dipped in a systemic dip, and drenched with thiobenzole for internal parasites. Cattle are then placed in feeding pens that hold about 200 head each.

The cattle have usually been shipped and are tired, so after all of the treatments it takes two or three days to get them to eat very well. The cattle are started on whole alfalfa hay; after the first day a little grain and corn silage is added. This is gradually increased and the hay is
dropped the fifth day. At the end of thirty days, a yearling steer, which weighed about 700 pounds, will be eating about sixty pounds of total feed per day. About seventy-five percent of this total feed is corn silage. Usually the animals stay on this ration for about fifty days. The gains produced on this high level of silage and low level of concentrates is growth gain. It is the cheapest and best gain we get. The next step is reached by raising the grain and reducing the silage to about sixty-two percent for another thirty days. This procedure is followed two more times. The finish ration contains twenty-seven percent silage.

Cattle fed in this manner for about one hundred and fifty days will grade United States Department of Agriculture Choice Grade. This is the popular grade that commands the greatest price.

The cattle are bought by slaughterers who come to our feedlot. They buy a pen of cattle for delivery during the next week. The delivery dates are at the option of the purchaser. The cattle are weighed at the feedlot at 7:00 a.m., then delivered to the purchaser's slaughter plant in our trucks.

In summary, I will take the speakers privilege of making a few suggestions of how some of our cattle finishing methods might be of value to you.

Your country has a big cow herd of both beef cows and dairy cows which are bred to beef bulls. Most of the steers I saw at the LaVillette market were big steers - three, four, and five years old. If these older steers were slaughtered at an earlier age, there would be more grass for
more cows, which would raise more calves, which would produce more beef. This speedup in the total cattle herd would make a more profitable cattle industry.

It would not be necessary or desirable for you to feed cattle to the same finish grade that we do. Your animals could be fed on the growing rations for a longer time and never need to be fed the high concentrate rations. Probably the efficient place to stop would be at about two-thirds roughage. This method would give maximum growth at the least price, using a minimum amount of grain and not producing the excessive fat which your customers do not want. I would guess that after your people have developed a taste for fed beef they will never be satisfied with grass beef again.

Last summer, I was tremendously impressed with the cattle industry in all the countries we visited. You have the finest basic herds of all breeds to be found anywhere in the world. You have very excellent dairy herds, which are basic to your economy. The crossbreeding between dairy and beef animals, commonly practiced in all European countries, is the most efficient production of beef possible. Your acceptance of crossbreeding by leading producers of all breeds is far ahead of the United States.
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.
I am glad to finally have the opportunity to share some thoughts with the Colorado Meat Dealers. You gentlemen and the firms you represent are our customers. Farr Farms Co. sells you several hundred cattle every week, so I am particularly happy to be here tonight.

Since I am now a past president of the American National Cattlemen's Association, I will be giving you personal opinions and judgment.

The cattle industry that we are all involved in has become a very basic dynamic industry. In fact, the feeding and slaughtering of beef is the largest single industry in the state of Colorado.

Many of you have been involved and have observed with amazement the changes we have seen in the past twenty years. Several basic changes occurred as the
Korean war ended. The central market system began to decline rapidly. The Denver market was the most classic example. The fundamental basic change was the development of livestock trucks and the highway system. We no longer needed the central market. They were institutions built at strategic rail centers. Trucks provided a faster more flexible system of moving livestock.

World War II and the Korean war had produced price controls, rationing and compulsory grading. This set the stage for the first changes in U.S.D.A. beef grades. The changes then, plus others since, have made today's cattle feeding possible. It also made the concept of straight beef slaughtering plants feasible. Neither of these would have happened without the improved standardized U.S.D.A. grades. I well know that beef grading has caused lots of problems. The point I want to make is that U.S.D.A. beef grading is the fundamental foundation of today's cattle industry.
The next point I would like to make is also very basic. Feedlots and beef slaughtering facilities have been built in favorable areas all over the United States.

As the two industries have grown together, they have constantly needed more cattle. Each year more of what we used to call butcher cattle moved through feedlots. Calf slaughter was a big business both for veal and baby beef. The pressure for more cattle to feed has forced these calves into the feedlots. I can speak from experience on this point. We built a large expensive facility to produce genuine veal with the idea that a high priced gourmet market could be developed. We were relatively successful in building the market. However, cattle prices continued to rise because of the demand for beef. The fact developed that you cannot afford to kill a young animal at the time in life when it can convert feed to meat at the most efficient level. Economics forced us to close the veal facility. I know many others who have
done the same thing. Because of these facts, I would suggest to you that veal will pass out of the meat supply in the next few years.

On April first we had substantially more cattle on feed than ever before in history. However, we are only slaughtering a few more cattle than last year. Why? Because every animal that is available is going through the feedlots. The extra cattle on feed are in a position where they can be counted. But there are practically no butcher cattle or calves left only fed cattle and cows. Another proof of this point is the fact that the animals in the feedlots are younger each year.

Every state has feedlots with some empty pens. There are not enough cattle to satisfy the total feedlot plant facilities. This is the reason for exceedingly high feeder cattle prices. The same situation applies to the beef slaughter industry. There is more capacity than there are cattle. This is why you
have to pay so much for finished cattle and you have difficulty maintaining satisfactory margins.

Mr. Al Andrews assigned the title for tonight's talk "Cattle Industry In The Next Decade." From now on, I intend to give you my thoughts of what will happen to the cattle industry and what we can do about it.

Historically we have had drouths between the continental divide and the Missouri River in twenty year cycles. Most of you remember the drouths of the 1950's, a few of my age remember the real dust bowl days in the 30's. Last year it was Texas. This year it is Arizona, Colorado, New Mexico. Our snowpack is light. The winter has been warm and open, all of the indicators we remember so well. This is the decade of the 70's. The twenty year cycle is due.

Let's assume that we are in the early years of a drouth cycle. What does this mean to the cattle business? Always before it has meant liquidation, heavy slaughter,
then when the cycle ended, a slow build back with shorter numbers. Drouth was the main factor in the old cattle cycles that we have always lived with. I don't believe this will happen this time. There are two reasons. First we have possum belly trucks with the capability of moving our cattle herd to the feed. This was never possible with rail shipments because we never had good north and south rail service in the United States. We enjoyed excellent east-west service but in drouth periods this was not flexible enough. Secondly, any animal that is short of feed anywhere will quickly move to a feedlot. This was not possible in the 30's and 50's. There was not very much feedlot capacity and almost all of it was confined in the cornbelt.

Therefore, I do not expect liquidation or lower prices because of drouth. Probably our cattle inventory will struggle to hold its' own. It will be difficult to increase the cattle herd during drouth years. In 1970 the per capita beef consumption was 113.7#. In 1971 it declined slightly
to 113.3#. So far in 1971 we are about at last year's levels. If my assumptions prove to be true, beef consumption per capita cannot rise for several years because we cannot increase production.

Today there is intense competition between areas both at the feedlot level and the slaughter level. If supplies do not increase, competition will get even more intense. This is what I expect to happen.

The past two years, I have traveled to all the cattle producing areas, I am convinced that Colorado has more advantages than many other areas. I believe we must face the problem of the survival of the fittest. I believe Colorado cattle feeders can produce fed beef more efficiently than the majority of the states. If this is true, then Colorado feeders will continue in business and some other areas will have to cease operations.

This means this decade will be tough for both feeders and slaughterers. As we emerge from this decade of the 70's into
a new period of favorable crop conditions, both Colorado cattle feeders and slaughterers should be in a tremendously strong position to capitalize on the next move upward in per capita consumption. The experts believe our consumers will buy 130# of beef at good prices. There is a lot of room to expand between 113# and 130#.

There is one last thought I would like to present. The great weakness of the cattle industry is that the entire industry is based on averages. There is no mechanism to pay for superior product. This is the way the production part of the industry wanted it. The pure-bred industry held back progress for at least twenty years. Finally the commercial breeders demanded some new blood and improved cattle. We constantly see more Charolais and the new exotic breeds have taken everyone's attention.

The industry possesses the genetic knowledge to produce superior cattle. The desirable traits are highly heritable. The commercial industry is being forced by economics to produce more efficient
animals. If the cattle in my feedlot were gaining four pounds a day, we could produce a lot more beef at a price more competitive to other food products. This is entirely possible and they would be the right kind of carcass that would grade and yield.

The most important step that the cattle industry can take is to re-evaluate the present U.S.D.A. yield grading system. Probably reduce the five yield grades to four. Re-define and write a new specification for confirmation. Then adapt one grading system where all beef carcasses must be both quality and yield graded. If all beef carried a yield grade, then as packers you could sell the various grades for their true worth. In turn you could pay the feeder who produces choice 2's more than the feeder who produces choice 4's.

The packing industry has more to gain from this program than any other segment of the industry. Today you either sell your beef on averages and the Yellow Sheet or you get some premium from a few customers, but not enough. Competition won't let you.
However, if everyone was selling 2's, 3's and 4's, you could get a true value. As inflation continues and 60¢ carcass beef becomes as common as 40¢ carcass beef was, then these differences between qualities become more pronounced. Until a program is adopted that will return a premium to the cow-calf producer for a superior calf, you will not see a healthy beef business. There is no other commodity in the world sold on averages like beef carcasses.

I have enjoyed the evening. I hope some of the thoughts will be helpful to you.
THE U.S. ROLE IN THE WORLD FOOD SUPPLY

A long time ago, when the Chicago stockyards were operating at their peak, a farmer from Iowa came to Chicago for the first time with a trainload of cattle. He looked with dismay and astonishment at the tens of thousands of cattle, hogs, and sheep and exclaimed, "Gosh. There's not enough people in the whole world to eat all that meat!"

Later in the day, after he sold his cattle, he went downtown just as offices and stores were closing. He stood on the corner of State and Madison and was even more shocked than he had been earlier in the day. "Lord save us," he said fearfully, "There's not enough food in the whole wide world to feed all those people!"

The farmer from Iowa, like many of us today, was having trouble with perspective.

The tremendous capacity of our food production resource is almost beyond our ability to comprehend. But it is even more difficult for us to grasp fully the gigantic food needs of our 213 million U.S. citizens. We, too, have trouble with perspective.

Our problem of perspective becomes almost unmanageable when we try to understand the food and nutrition needs of a world where the weather is always bad someplace, of a world where population growth seems out of control in

Address by Richard Lyng, President, American Meat Institute, at the 35th Annual Meeting & Food Expo of the Institute of Food Technologists
Chicago, Illinois, June 9, 1975
almost all places, and of a world where two thirds of the people live in places where annual incomes average less than $200 per person.

My role today, happily, is not to discuss the world food situation. Senator Curtis was given that difficult assignment and he has, typically, handled it well. I have been asked to discuss the U.S. Role in World Food Supply, a far easier, though still challenging, task.

U.S. FOOD RESOURCES

The United States plays an important role in world food supply. I think almost all of us know that. Some of us may not fully appreciate the fact that we export the production of one out of every four acres. This is a massive quantity of food, most of which moves into commercial international trade. But a significant amount is shipped as aid to hungry people, and paid for by U.S. taxpayers.

Our agricultural exports last year exceeded 21 billion dollars and totaled 9 billion dollars more than our food imports. This was the largest single favorable contributor to the U.S. trade balances. This food trade surplus is of immense importance, not only in permitting us to import foods we enjoy and need like coffee, sugar, cocoa, bananas, and even some meat, but also in allowing us to import the ever-growing quantities of higher and higher priced crude oil to feed our Volkswagons, Merceds, Datsuns, Toyotas, and Volvos.

Our ability to produce more food than we need not only permits huge exports which have contributed substantially to everyone's standard of living, it has also made it possible to give special food help to our lowest income citizens.
Starting in 1969 the U.S. embarked upon a national policy to eradicate poverty-caused hunger and malnutrition. Progress has been significant. Everyone who compares today with the situation which prevailed in 1969 will agree that much has been accomplished. Never in all of history has a major nation been so bold as to attempt to eliminate hunger among all its people. We have made great progress --- at great cost --- but only because we had great food production resources.

Yet we must not lose our perspective when we think of the total food potential of the United States and its potential effect upon world food supply and needs. The U.S. is able to make a huge commitment to provide food assistance to its needy. Of our 213 million citizens more than 19 million were participating in the food stamp program in April, 1975. This is the most ever. But we cannot even consider solving the world problem of poverty-caused hunger and malnutrition alone. Massive though our food production is, we produce only 13 percent of the world wheat crop, and 1.5 percent of the world rice crop. These are the vital cereal foods for billions of people around the world. Rice is the predominant food for over one half of the world's population. Our 213 million people represent less than 7 percent of total world population. We eat very little rice and less than a third of our wheat, so we have wheat and rice, as well as other food and feed commodities which we can export. Our surpluses, though, are not large enough to solve the world food crisis today and they will not be able to do so in the future.

POPULATION vs. FOOD PRODUCTION

In the United States food production has more than kept pace with population
growth for the past twenty years. We have increased our production far faster than our population. Thus, we have had a big gain in food availability per person. This is true in nearly all developed countries.

In the developing countries population growth has been much faster. Although the rate of increase in food production is not much different than ours, it has been almost fully absorbed by population gains. This leaves the developing countries with per capita food availability only slightly higher than in 1955. It was too low then and remains too low today.

By the year 2000 we will have about 270 million people in the United States. That is 57 million more than we have today. Our food production capability is such that we will have very little difficulty in continuing to expand our per capita supply. Given a proper national production policy, U.S. agriculture will be able to provide sufficient food to improve our domestic diet and still expand our food exports.

The U.S. will not, however, be able to increase exports at a rate which will keep pace with world population growth during the next twenty-five years. By the turn of the century, world population is expected to total nearly seven billion persons --- three billion more than today. Others on this program will talk more knowingly about population trends as you consider feeding our hungry planet. But one must point repeatedly to population growth as the dominating factor when considering future food supply-demand relationships.

FARM POLICY AND FOOD AID

There are two different kinds of U.S. food exports: for trade, and for
aid. Most of our exports are moving into international trade. Some examples are: soybeans and feed grains to Europe and Japan; wheat to Japan, Russia, China, the Middle East; fruits and vegetables to Canada, Scandinavia, Japan.

Our exports of food to aid hungry people are significant, though much smaller. U.S. free and concessional-terms food programs will total about 1.5 billion dollars this year. Over the past twenty years the U.S. has provided 25 billion dollars worth of free food throughout the world. Between 1965 and 1972 the U.S. provided 84 percent of all the food donated to hungry nations.

We can, and we should in the future, maintain our role as a major contributor of food to the needy throughout the world. To be able to do so we must maintain a highly productive U.S. agriculture and food industry. That is not going to be easy! Dr. D. Gale Johnson stated it well when he said, on April 11, 1975:

"The wisdom with which the problems of U.S. agriculture are approached during the next year will affect farming for at least the remainder of this decade and perhaps longer. If unwise changes in programs are made now, no matter how well intentioned, most if not all of the benefits of farm policy changes that were made between the early 1960's and 1973 will be lost."

Dr. Johnson, and many thoughtful students of agricultural policy, considers the trend in national farm policy during the 1960's and early 1970's to be "relatively wise and effective." I agree.

As the result of a series of highly unusual events which affected food supply and prices beginning in 1972, voices have been heard calling for a "national food policy", "international reserves", and for abstention from meat. Each of these is a current national issue.
A NATIONAL FOOD POLICY?

The fact is that in the U.S. we have a "national food policy," one which has evolved through literally thousands of hours of debate and tens of years of study and experimentation. It is a dynamic policy calling for full production combined with a commitment to provide food assistance to all of our citizens who are faced with a problem of poverty. Further, we are committed as a nation to an aggressive policy of international trade in farm products, thereby offering our producers the incentives of world markets. It is a policy which allows producers to look to the market place when selling their crops rather than to the government. This is a wise policy and will benefit all U.S. citizens. It is also a policy which will provide us the means to contribute food to help alleviate world hunger.

1974 was the first year in twenty in which we had no land idled by government programs. Unfortunately, the full production policy suffered two serious blows in its first year. Weather was the worst in forty years. Our feed grain crops, in particular, were sharply curtailed by summer drought and early fall freezes. Our total crop of corn alone was two billion bushels below early estimates. A devastating loss of nearly ten bushels of corn for each man, woman, and child in the U.S.!

The second problem was man-made. It has had serious consequences. In 1974, for the second year in a row, we imposed export limitations on farm products, this time on wheat and feed grains. It is totally inconsistent with a full-production, free-market concept to impose export controls or limitations
in order to reduce prices at home, however politically attractive the action appears to be at the time. Such interference in the free market damages confidence of both producer and foreign buyer alike. It eventually erodes the incentive to produce and encourages the buyer to look elsewhere for a more reliable source.

In 1973 President Nixon imposed an export embargo on soybeans and related products. Our number one customer, Japan, was deeply affronted by this interference in the orderly flow of a needed food product from a source she had considered dependable. What has been the predictable result? A major increase in soybean production elsewhere, particularly in Brazil, some of it stimulated by Japan. Brazil is producing over 15 million acres of soybeans this year, up from 5 million in 1972 and only 2 million in 1969.

We must not look upon our export markets as only a place to dispose of surpluses. In times of bad crops we must share the short supplies and pay the higher prices. To attempt to keep domestic prices down by reducing or eliminating exports will eventually destroy the confidence in the full-production, free-market concept.

FOOD RESERVES

Food reserves, another popular subject for discussion, are often brought up when prices are high. But reserves are almost totally ignored during periods of surplus and low prices. As a matter of fact, many of the same people who are now calling for reserves were once critical of the high costs of farm surplus accumulation. Food reserves are not only desirable, they are essential. Everyone
agrees with that. But there is room for plenty of disagreement when one starts
talking about who should own reserves, and when they should be used.

I am one of those who does not believe that we have now moved into a
period of chronic world food shortages. I view 1972, and 1974 as unusual and
abnormal years. Prior to 1972 we had large food reserves. So large, in fact,
that each year from 1955 to 1973 we took acreage out of production in the U.S.
in order to keep our surpluses, or reserves, from becoming even larger.

We will soon again, perhaps this year, move back into a period of more
normal weather worldwide and reserves will begin to accumulate. They should
be in the hands of producers, who may need to be assisted by realistic government
loans keyed to market clearing levels. Reserves should also be in the hands of
domestic feed and food processors and foreign buyers. It would be a serious
error to place reserves in government hands once again. And we must resist
steps to return to government programs to take land out of production.

The U.S. has made a commitment to an international reserve to be held
for emergency food assistance. This program, if widely supported by other
developed countries, could be of value in bringing quick help in severe disaster
situations. It should not be used as a means to stabilize prices or to satisfy
persistent under-production. Such an international emergency reserve must be
sizeable enough to be effective but must never be allowed to become so large
that it becomes a threat to market prices or to dampen the incentive to produce.

If our current food policy is given an opportunity to function for two or
three years, I am convinced that we will regain our confidence in our ability to
produce and the concern about long-term reserves will diminish.
ABSTAIN FROM MEAT?

The poor feed grain crops of 1974 gave rise to a clamor from people who should have known better that the world hunger problem could be solved by eating grain instead of meat. This has resulted in needless confusion among sincere people who are concerned about the plight of their fellow man.

Actually, no starving person anywhere is benefited by abstinence from meat alone. The starving person needs food or the money to buy food. If one abstains from meat, or beer, or a movie, or anything else and gives the money saved to a starving person he will benefit, of course. As feed grains became scarce and the cost of producing meat animals went up we produced and ate less meat. We always eat all the meat we produce. The production and therefore the consumption of pork in the U.S. this year will be the lowest in forty years. The number of cattle in feedlots is down sharply. When we move back to normal yields and supplies of grain we will increase our supply of meat.

Most meat, especially beef, comes from the conversion of feed resources which are inedible by humans. Forage of one kind or another is the major food of ruminants. Ruminants -- cattle, sheep, and goats -- convert an otherwise useless product into valuable protein. It is too bad that in their valid concern about the problem of world hunger some of our leaders thought that eating less meat would solve the problem. This is a simple but erroneous solution, misleading many sincere people, failing to help those who needed help so badly, and having the potential to disrupt an essential part of American agriculture.

RESEARCH AND EDUCATION: KEYS TO INCREASED PRODUCTION

There is much room for expansion of our food production resources. We
can do so but it will require a renaissance of the awareness of the importance of agriculture we had as a nation during the 75 years following the establishment of the Department of Agriculture by President Abraham Lincoln in 1862. Beginning with the Morrill Act setting up the Colleges of Agriculture; the Hatch Act, in 1887, establishing experiment stations at the Colleges, the subsequent development of support for research at these facilities; and the passage of the Smith-Lever Act in 1914 which established Cooperative Extension, we have had an enlightened national program designed to improve farm incomes through the increasing efficiency from research and education.

We must give renewed attention to research and education. Our urban population, beset by problems of all kinds, must be made aware that their interest is served by a thriving, productive agriculture. Food and agriculture research is essential to achieve that goal. To accomplish the needed urban understanding, agriculturists and food scientists must show more patience, more communicative skills, and exert more effort to explain the values of food production to consumers. Long accustomed to low food prices, U.S. consumers have, in recent years, become increasingly suspicious of farm or food programs which seem to have as their goal the enrichment of farmers or food industries. We must urge them to spend more time and effort with us, and we with them, so that they more clearly understand the need for some of the programs we support.

TWO KINDS OF FOOD AID

If we can improve our production, and I am confident we can, what should our role be in feeding the hungry throughout the world? It must encompass two
separate but coordinated programs. The first designed to give food aid. The second to provide technical assistance aimed at increasing food production in developing countries. This is, essentially, what we have been doing in the past. But both programs have suffered from a lack of consistency in funding as well as from the excessive injection of collateral interests in allocation of often inadequate resources.

To provide food in chronically short situations frequently prolongs the shortage by destroying or diminishing local incentive. We must combine our food give-aways with technical assistance and provide strong, high level attention to a coordination of all U.S. help, including military assistance. If we do we will generate immediate benefits in feeding the hungry and in giving hope of real progress toward self-sufficiency.

In the past our accumulated farm surpluses were our primary source of food aid. There is nothing intrinsically wrong with this. But we must take care not to dump our products on a developing nation without giving thought to the long term effects of such action upon local production, local markets, and local long term benefits.

To build or to maintain a strong agriculture we must solve many problems, here or in a developing country. There are the problems of capital formation; the problems of energy; the needs for seed, fertilizer and pesticides; problems of taxation; of transportation; of international exchange; of inflation. In the U.S. we have great problem-solving potential. I am confident we will make the kind of progress at home and abroad which will lead to food production expansion
beyond our wildest imaginings.

One final note! We too often think only of farms when we think of food production. We can rightly be proud of U.S. farms and farmers. The Corn Belt is a tremendous asset, as are the plains, the deltas, the irrigated valleys of the West. And our American farmers are ingenious, are inventive, are aggressive and energetic and able.

But we must not forget that food requires more than farming. It requires a system of production, processing, storing, packaging, transporting, and distributing. The U.S. food systems are complex in the extreme. They are difficult to understand. And they are changing every moment. Geared to rapidly respond to the demands of the free market system, they have clearly proved that the incentive of possible profit provides the greatest possible public benefit.

Food science and technology play a major part in these systems. The role of food technologists has been great in the past, and it will be even greater in the future.

SUMMARY

The United States' role in the world food supply is a major one, not only because of the foods we will export for trade and for aid, but because we have technical expertise which is exportable to developing nations. We cannot, alone, satisfy world food needs. But we can make a major contribution. It is essential that we maintain a strong U.S. agriculture. To do so we must have a wise federal farm policy, an expansion of research and education, and a more understanding urban population.

Given a chance, U.S. agriculture will continue to play a big part in feeding our hungry planet.
I AM PLEASED AND HONORED TO BE INVITED TO SPEAK TO THE CSU LIVESTOCK CLUB AT YOUR FIRST ANNUAL SEMINAR. I ALWAYS FIND IT STIMULATING TO COME TO THIS CAMPUS AND SPEAK TO YOUNG PEOPLE WHO HAVE THE FUTURE BEFORE THEM. AS STUDENTS YOU ARE ALWAYS ANXIOUS TO LEARN OF THE PAST AND LOOK FORWARD TO WHAT YOU HOPE WILL BE THE WONDERFUL YEARS AHEAD.

YOUR PANEL IS MEAT FROM THE RANGE TO THE TABLE. MY PART OF THE PROGRAM IS ENTITLED "LAND USE AND MEAT PRODUCTION".

TODAY I WILL SPEAK TO YOU DIFFERENTLY THAN I WOULD HAVE TWO YEARS AGO. THROUGH MY LIFETIME MEAT PRODUCTION AND ANIMAL AGRICULTURE HAVE BEEN THE EMPHASIS OF MOST UNIVERSITIES AND THE PEOPLE WHO HAVE PRODUCED THE MEAT AND FOLLOWED ANIMAL AGRICULTURE HAVE FARED BETTER THAN THE CROP PRODUCER. I BELIEVE THAT 1980 PROVED THAT THE TABLE IS TURNING AND CROP AGRICULTURE IS GOING TO BE MORE PROFITABLE THAN ANIMAL AGRICULTURE. I HATE TO PREDICT THIS, BUT I FULLY BELIEVE IT. SINCE I TAKE THE RESPONSIBILITY OF TALKING TO YOUNG PEOPLE VERY SERIOUSLY, I MUST TELL IT LIKE I SEE IT.

I AM NOT TRYING TO PAINT A GLOOM AND DOOM PREDICTION. I AM MERELY POINTING OUT THAT THE ENERGY PROBLEMS OF THE WORLD HAVE DRASTICALLY CHANGED
OUTLOOK FOR AGRICULTURE. WE HAVE HAD SIX YEARS OF ENERGY SHORT
EXPERIENCE AND CERTAINLY NO ONE KNOWS FOR SURE WHERE WE ARE GOING,
BUT 1980 HAS GIVEN US SOME VERY POSITIVE GUIDELINES.

ENERGY WAS CONTROLLED AT A CHEAP LEVEL FOR MANY YEARS. THE RAPID
ADJUSTMENT TO MUCH HIGHER ENERGY HAS INCREASED THE COST OF PRODUCING
EVERYTHING AND IT HAS ALSO REMOVED MUCH OF THE DISCRETIONARY INCOME OF OUR
AMERICAN PUBLIC. AS PRODUCERS OF LIVESTOCK AND MEAT OUR COSTS HAVE Risen
TREMENDOUSLY IN EVERY AREA OF PRODUCTION. ON TOP OF THIS, OUR SHARE OF
THE CONSUMER'S DOLLAR HAS BEEN REDUCED BECAUSE THE COST OF PREPARING
AND DISTRIBUTING THE PRODUCT WHEN IT LEAVES THE FARM OR RANCH HAS MORE
THAN DOUBLED. SO AS PRODUCERS OF LIVESTOCK AND MEAT WE ARE CAUGHT WITH
A DOUBLE EDGED SWORD.

THE LIVESTOCK INDUSTRY IS STILL IN A PERIOD OF ADJUSTING TO THESE
NEW PROBLEMS. THIS IS CAUSING A GREAT DEAL OF UPHEAVAL BETWEEN VARIOUS
AREAS THAT PRODUCE OUR MEAT, MILK AND EGGS. THERE IS A GREAT DEAL OF
COMPETITION BETWEEN WHITE MEAT, THAT IS, POULTRY AGAINST RED MEAT. THE
EFFICIENCIES OF VARIOUS KINDS OF ANIMALS IN THEIR CONVERSION OF FEED
TO MEAT IS VERY DEFINITELY A PART OF THIS ADJUSTMENT PERIOD. BECAUSE
OF INFLATION, OUR AMERICAN CONSUMERS ARE FINDING IT DIFFICULT TO KEEP
UP WITH THE COST OF LIVING. THEY ARE BEING FORCED TO CHANGE THEIR
LIVING HABITS AND THEIR FOOD TASTES.
THE LAST TIME I TALKED TO A GROUP ON THIS CAMPUS I TALKED ABOUT THE GREAT GROWTH OF THE HAMBURGER CHAINS AND WHAT A GREAT BOON THEY WERE TO THE BEEF INDUSTRY. I EXPLAINED VERY CAREFULLY THAT THEY WERE NOT ONLY USING ALL OF OUR BY-PRODUCT, THAT IS, COWS AND BULLS BUT THEY WERE ALSO STARTING TO USE A LARGE PER CENT OF THE FOREQUARTERS OF OUR FED BEEF IN ORDER TO SATISFY THE DEMAND. THEIR SALES WERE GROWING RAPIDLY AND THERE SEEMED TO BE NO LIMIT TO THE POUNDS OF BEEF THEY COULD SELL EACH YEAR. HOWEVER, BY 1980 EVERY MAJOR HAMBURGER CHAIN HAD ADDED EITHER A PORK, CHICKEN OR FISH SANDWICH TO THEIR MENU, AND IN SOME CASES ALL THREE. BEEF SALES TO THESE RESTAURANTS ARE OFF ABOUT 20% OR MORE. THE TOTAL BUSINESS OF THE INDUSTRY IS OFF 10 TO 15%. PEOPLE ARE NOT EATING OUT AS MUCH AS THEY DID BECAUSE THEY CANNOT AFFORD IT.


AFTER THE ADJUSTMENTS ARE MADE, IN 1984 OR 85, FROM THEN ON THE FUTURE FOR LIVESTOCK AND MEAT WILL BE MUCH BETTER. PRESIDENT REAGAN
HILL HAVE LOWERED THE RATE OF INFLATION AND THE AMERICAN CONSUMER WILL HAVE A LITTLE MORE DISCRETIONARY MONEY TO SPEND AND THE NEEDS, WISHES, AND THEIR ABILITY TO BUY WILL BE BETTER DEFINED.

YOU ARE ALL YOUNG AND THIS TWO OR THREE YEARS TO WAIT WILL NOT MAKE MUCH DIFFERENCE TO YOU. I BELIEVE THAT POULTRY WILL BE THE DOMINANT MEAT OF THE FUTURE, FOLLOWED BY PORK AS SECOND MOST POPULAR, AND THEN BEEF WILL STILL BE PART OF THE AMERICAN DIET, BUT IT WILL BE THE THIRD MEAT IN PER CAPITA CONSUMPTION. VERY LIKELY THE POUNDS PER CAPITA WILL BE RELATIVELY CLOSE AMONG ALL THREE MEATS. I KNOW MOST PEOPLE WILL NOT AGREE WITH THAT PREDICTION.

MY BASIS FOR THE PREDICTION IS THE FACT THAT PHYSIOLOGICALLY THE AVERAGE COW PRODUCES ONLY 0.7 PROGENY PER YEAR AND 2/3DS OF HER BODY WEIGHT. THE AVERAGE SOW PRODUCES TWELVE PROGENY PER YEAR AND NEARLY EIGHT TIMES HER BODY WEIGHT. THE AVERAGE HEN PRODUCES 150 PROGENY PER YEAR AND 300 TIMES HER BODY WEIGHT. OBVIOUSLY CATTLEMEN MAKE PROGRESS THROUGH BREEDING MUCH SLOWER THAN HOG AND POULTRY PRODUCERS.

THE POULTRY PRODUCERS HAVE EXPLOITED THEIR PRODUCTION AND THEIR GENETICS AND ARE HIGHLY EFFICIENT. THE PORK PRODUCERS HAVE DONE LIKEWISE BUT ARE NOT AS FAR ADVANCED AS POULTRY. THE CATTLE INDUSTRY HAS MADE
VERY LITTLE REAL PROGRESS IN EFFICIENT GENETICS OR PRODUCTION.

THE STRUCTURE OF OUR BEEF INDUSTRY IS A DETERRENT TO PROGRESS. THERE ARE 1.6 MILLION CATTLE OPERATIONS IN THE UNITED STATES. 68% OF THEM HAVE FEWER THAN 50 COWS. MOST OF THIS 68% ARE PART-TIME OR SIDE-LINE OPERATORS. THEY ARE NOT DEPENDING ON THE BUSINESS WHERE THEY ABSolutely HAVE TO MAKE MONEY LIKE THE OTHER PRODUCERS.

CATTLE ARE PRODUCED IN ALL FIFTY STATES. THEY ARE LARGE, HEAVY ANIMALS, THEY HAVE TO BE TRANSPORTED TO COMMON POINTS FOR GRAZING, FEEDING AND SLAUGHTER. TRANSPORTATION AND ITS EVER HIGH COST IS ANOTHER MAJOR DETERRENT. THESE ARE THE CHALLENGES OR THE OPPORTUNITIES FOR YOU YOUNG CATTLE PEOPLE TO SOLVE.

THERE ARE ABOUT 900 MILLION ACRES THAT GROW GRASS THAT CAN ONLY BE CONVERTED INTO HUMAN FOOD BY RUMINANT ANIMALS. THESE ACRES WOULD GO TO WASTE AS A RENEWABLE RESOURCE IF IT WERE NOT FOR THE RUMINANTS.

THE BIG CHALLENGE FOR THE CATTLE INDUSTRY IS TO LOOK THE FACTS SQUARELY IN THE FACE AND REALIZE THAT FIRST OF ALL THEY MUST CONVERT THIS GRASS AND SOME CROP RESIDUES TO BEEF IN THE MOST EFFICIENT MANNER. THE SECOND CHALLENGE IS TO IMMEDIATELY START TO SELECT CATTLE TO
SPECIFICALLY CONSUME THIS GRASS AND THEN MOVE INTO A FEEDLOT AND USE AS LITTLE GRAIN AS POSSIBLE IN THE CONVERSION TO FINISHED BEEF.

LAST WEEK AT THE ANNUAL CONVENTION OF THE NATIONAL CATTLEMEN'S ASSOCIATION IN PHOENIX THEY PASSED A RESOLUTION TO REQUEST THE UNITED STATES DEPARTMENT OF AGRICULTURE TO CHANGE THE USDA BEEF GRADE STANDARDS. THIS PROPOSED CHANGE WILL SOON BE IN THE HANDS OF THE GRADING SERVICE AND WITHIN A FEW MONTHS THERE WILL BE AN OFFICIAL GRADE CHANGE PROPOSAL. THE PROPOSAL WILL FIRST HAVE TO BE PUBLISHED IN THE FEDERAL REGISTER. THERE WILL BE A 60 OR 90 DAY PERIOD WHEN EVERYONE HAS A CHANCE TO COMMENT FOR OR AGAINST THE PROPOSED GRADE CHANGE. THE NEXT STEP IS FOR THE USDA TO CAREFULLY STUDY ALL THE COMMENTS. FINALLY USDA ISSUES ITS FINAL DECISION AND STATES THE DATE WHEN THE NEW BEEF GRADES WILL BE PUT INTO EFFECT.

THE PROPOSED GRADE CHANGE IS VERY MINOR. PRESENT BEEF GRADING STANDARDS REQUIRE THAT USDA CHOICE GRADE CATTLE HAVE A SMALL AMOUNT OF MARBLING. THE NEW PROPOSAL ADDS THE NEXT MARBLING SCORE OF SLIGHT TO THE CHOICE GRADE. HOWEVER, IF THERE IS ONLY SLIGHT MARBLING, THERE MUST ALSO BE IN ADDITION 3/10 INCH OF FAT OVER THE TWELFTH RIB. BY REQUIRING BOTH SLIGHT MARBLING AND 3/10 OF AN INCH OF FAT, THE CONSUMER
IS GUARANTEED THE SAME EATING QUALITY AS HE WOULD RECEIVE FROM SMALL, MODEST, AND MODERATE MARBLING SCORES. THERE IS MUCH RESEARCH WORK, PART OF IT CONDUCTED BY COLORADO STATE UNIVERSITY, THAT BACKS UP THIS GRADE REVISION.

I BELIEVE TODAY THE SINGLE MOST IMPORTANT THING THAT COULD POSSIBLY HAPPEN TO THE BEEF CATTLE INDUSTRY IS TO HAVE THIS NEW GRADING PROPOSAL ACCEPTED.

ALL CONSUMER SURVEYS HAVE SHOWN THE BIGGEST RESENTMENT CONSUMERS HAVE FOR BEEF IS EXCESS FAT. PART OF THIS OBJECTION IS TIED TO THE CHOLESTEROL ISSUE, WHICH, OF COURSE, IS DEBATABLE. THE OTHER PART IS TIED TO PURE ECONOMICS. PEOPLE DO NOT LIKE TO PAY $2.00 OR $3.00 A POUND FOR FAT AND THEN EITHER TRIM IT OFF BEFORE IT IS COOKED OR LEAVE IT ON THE PLATE AFTER THE MEAT IS COOKED. THEY FEEL THAT IS EXTRAVAGANT.

THE CATTLE FEEDING INDUSTRY HAS RECOGNIZED THIS FOR THE LAST FOUR OR FIVE YEARS, BUT BECAUSE OF THE GROWTH PATTERNS AND GENETICS OF CATTLE, PLUS THE NEED TO MAKE 75 TO 80% OF THE CATTLE GRADE CHOICE SO THEY ARE ACCEPTED IN THE TRADE, WE MAKE CATTLE TOO FAT.

MARBLING IS THE LAST FAT THAT AN ANIMAL DEPOSITS IN THE FEEDING PROCESS. THE TESTS SHOW THAT SLIGHT MARBLING WILL OCCUR IN ABOUT
75% to 80% of the cattle with about 110 days of feeding. The best part is that about 70% of them will be yield grade two and the balance yield grade three with no fours. To get 75% of the cattle to have a small marbling score takes about 130 to 140 days. By this time at least 10% are yield grade four and the majority of the others are high yield grade threes. Often people ask why yield grade twos don't bring a premium. The answer is that with current grade standards we do not produce enough yield grade twos to establish a daily market.

If the feeding period is reduced 20 to 30 days, the tonnage of beef will be reduced. Obviously current bad cattle prices are because too many pounds of beef are being produced. The cattle industry is subsidizing the American consumer to the tune of $100 to $150 per head at the present time. As we shorten the feeding period, the requirements of more cattle to go through the feeding complex is apparent. Total beef production will be stabilized.

It becomes more evident every day that in order to be competitive with pork and poultry that beef will have to be cut and boned at the slaughter plant, put in a box, either in store ready packages, such as you pick up in the supermarket today, or at least in boneless
MUSCLE FORM WHERE ALL THE FOOD STORE HAS TO DO IS CUT AND PACKAGE THE BONELESS CUTS. THE LARGE FOOD STORES ARE INSISTING THIS BE ACCOMPLISHED OR THEY WILL NOT HANDLE BEEF. THE ENERGY REQUIREMENTS OF LARGE COOLER ROOMS AND BUTCHER ROOMS, PLUS THE HANDLING OF CARCASSES ARE TOO LABOR DEMANDING FOR THE FOOD CHAINS. THEY WANT TO RECEIVE BEEF IN A BOX THAT CAN BE HANDLE WITH A PALLET TRUCK. WHEN THE MEAT CASE GETS LOW, THEY WANT TO GO TO THE BACK ROOM, OPEN A BOX AND REPLENISH THE CASE. THAT IS THE FORM POULTRY IS CURRENTLY COMING TO THE STORES IN. THAT IS THE FORM PORK IS BEGINNING TO COME TO THE STORES IN AND MY FRIENDS WHO ARE PRESIDENTS OF SOME OF THE LARGEST CHAIN STORES TELL ME THAT IF THE BEEF INDUSTRY DOES NOT GET ITS PRODUCT IN THE SAME FORM, THEN THERE WILL BE MANY STORES IN THE UNITED STATES THAT WILL EVENTUALLY REFUSE TO HANDLE BEEF.

THE POINT I AM TRYING TO EMPHASIZE WITH YOU YOUNG PEOPLE IS THAT IN A very few years all BEEF WILL BE GOING INTO THIS SO-CALLED BOX BEFORE IT MOVES TO EITHER THE RESTAURANT OR THE CHAIN STORE. THIS MEANS THAT THE BEEF THAT GOES IN THE BOX MUST BE A VERY UNIFORM SIZE OR IT WILL NOT FIT THE BOX. besides THAT THE SIZE OF THE CUT WILL NOT FIT THE CONSUMERS POCKET BOOK. BECAUSE OF THE HIGHER COST, THE STEAK CANNOT BE AS LARGE. YOU HAVE PROBABLY NOTICED AT THE RESTAURANT LEVEL THAT YOU ARE NOT SERVED AS LARGE A PORTION AS YOU WERE FORMERLY. THE SAME THING IS TRUE WHEN THE
CONSUMER TAKES IT HOME. SHE WANTS A FINE PRODUCT, BUT SHE LOOKS AT THE PRICE OF THE PACKAGE AND REFUSES THE LARGE CUT. THIS REQUIREMENT ACTUALLY MEANS THAT A BEEF CARCASS THAT WEIGHS LESS THAN 600 POUNDS OR MORE THAN 800 POUNDS WILL BE UNSALEABLE EXCEPT ON A VERY LOCAL BASIS. AS YOU RELATE THIS TO LIVE CATTLE IT MEANS THAT FOR PRACTICAL PURPOSES A 1200 POUND STEER GRADING CHOICE IS THE MAXIMUM WEIGHT THAT IS ACCEPTABLE.

FOR THE PAST FIFTEEN YEARS OUR CATTLE INDUSTRY HAS BEEN TRYING MANY BREEDS OF SO-CALLED EXOTIC CATTLE. THE INTEREST HAS BEEN TOWARDS LARGE GAINING CATTLE. RANCHERS HAVE BEEN HARD PRESSED FOR INCOME AND NATURALLY A CALF THAT WILL WEIGH 25 TO 50 POUNDS MORE IS ATTRACTIVE. THIS EMPHASIS HAS MADE ALL OF THE BREEDS START SELECTING THE LARGER ANIMALS WITHIN THEIR BREEDS. THE HEREFORD, AND ANGUS HAVE INCREASED THEIR SIZE IN THE PAST FEW YEARS, AS WELL AS THE INTRODUCTION OF THE CHARLOIS, BRAHMAN, AND OTHER EXOTIC BREEDS.

I BELIEVE THE INDUSTRY HAS GONE TOO FAR WITH THEIR EMPHASIS ON SIZE. IT IS WRONG FROM TWO STANDPOINTS. FIRST, THE LARGER THE COW, THE MORE FOOD IT TAKES TO MAINTAIN HER. IN OTHER WORDS, IF YOU HAVE LARGE COWS ON A RANCH YOU CANNOT HAVE AS MANY OF THEM. SECONDLY, IF THE CATTLE PRODUCED WILL NOT FINISH AT LESS THAN 1200 POUNDS THEN THEY WILL SELL FOR A DISCOUNT BECAUSE THEY WILL LITERALLY BE UNSALEABLE.
WHEN FINISHED. THERE IS NO QUESTION BUT WHAT SOME CROSS BREEDING IS ADVANTAGEOUS BECAUSE THE CROSS-BRED ANIMAL WILL GAIN FASTER.

AS I LOOK AHEAD AT THE CATTLE INDUSTRY IN THE NEXT TEN TO TWENTY YEARS, I SEE A VERY SUCCESSFUL GROUP OF CATTLE RANCHERS, EACH OF THEM WILL HAVE SELECTED THE BREED OF HIS CHOICE. HE WILL HAVE MATCHED HIS COW SIZE TO HIS PARTICULAR LOCALITY AND CLIMATE. NONE OF THE COWS WILL WEIGH OVER 1,000 POUNDS. HE CAN EITHER PRODUCE THEM AS STRAIGHT BRED CATTLE, OR USE A CROSS-BRED BULL ON HIS STRAIGHT HERD OF CATTLE. THIS WILL GIVE HIM HEAVIER CALVES TO SELL AS FEEDERS. SINCE THE BEEF IS GOING IN THE BOX, THERE WILL BE VERY LITTLE DIFFERENCE IN SIZE OR PRICE BETWEEN HEIFERS AND STEERS.

THERE ARE TREMENDOUS EFFICIENCIES FOR THE CATTLE INDUSTRY THAT CAN BE GAINED. THE KNOWLEDGE IS IN THE UNIVERSITIES AT THE MOMENT. IT IS MERELY A QUESTION OF MAKING PROPER DECISIONS AND STARTING TO PRODUCE THOSE HIGHLY EFFICIENT CATTLE IMMEDIATELY. THE NEW GRADING STANDARDS WILL HELP IDENTIFY THE KIND OF CATTLE THAT WILL BE USEABLE.

THERE IS NO NEED TO EXPERIMENT WITH MANY, MANY BREEDS OF CATTLE. THERE IS ONLY ONE END PRODUCT AND THAT IS BEEF. FOR PRACTICAL PURPOSES THERE IS ONLY ONE GRADE OF BEEF WHICH IS CHOICE. THERE IS ONLY ONE
WEIGHT OF BEEF TO PRODUCE BECAUSE THAT IS ALL THAT CAN BE SOLD. THE HEIFER WILL HAVE TO WEIGH A MINIMUM OF 1,000 POUNDS WHEN SHE IS FINISHED AND THE STEER WILL HAVE TO WEIGH NOT OVER 1,200. WITHIN THOSE PARAMETERS IT IS UP TO THE CATTLE INDUSTRY TO MAKE THESE CHANGES AS QUICKLY AS POSSIBLE.

BECAUSE OF ENERGY AND BECAUSE OF HIGH PRICED FEED, ANIMALS WILL HAVE TO BE GROWN ON ROUGHAGE UNTIL THEY WEIGH A MINIMUM OF 700 POUNDS AND A MAXIMUM OF 800 POUNDS BEFORE THEY MOVE INTO THE FEEDLOTS. I REALIZE THAT SOME RANCHES CANNOT PRODUCE YEARLING CATTLE, BUT I AM SURE MOST RANCHES CAN AND THOSE RANCHES THAT CAN PRODUCE YEARLING CATTLE SHOULD BE CHANGING TO THAT OPERATION. WITH THE INCREASED COSTS OF TRANSPORTATION IT IS NOT GOING TO BE EFFICIENT TO MOVE CALVES LONG DISTANCES, GROW THEM OUT AND THEN MOVE THEM ADDITIONAL LONG DISTANCES TO THE FEEDLOTS. CATTLE ARE GOING TO HAVE TO BE PRODUCED WHERE THE FEED IS GROWN AND TO THEIR FULL SIZE ON GRASS, THEN MOVED TO FEEDLOTS FOR FINISHING AND FINALLY TO A HIGHLY EFFICIENT LARGE BOX SLAUGHTER PLANT.

YOU ARE ALL YOUNG PEOPLE. YOU HAVE YOUR LIVES BEFORE YOU. YOU HAVE BEEN GROWING UP IN A SOCIETY THAT IS MATURING. YOU WILL NOT HAVE ALL OF THE FREEDOMS AND THE INEFFICIENCIES THAT MY GENERATION AND THOSE
BEFORE ME ENJOYED. IF YOU ARE GOING TO STAY IN THE LIVESTOCK BUSINESS YOU MUST MAKE A BUSINESS OUT OF IT, NOT A WAY OF LIFE. YOU WILL HAVE TO EARN A PROFIT, YOU WILL HAVE TO BE A MANAGER, YOU WILL HAVE TO TAKE EVERY ADVANTAGE OF EVERY OPPORTUNITY YOU CAN. THE BEEF BUSINESS HAS HAD LESS IMPROVEMENT AND LESS EFFICIENCY THAN ANY OTHER INDUSTRY IN MODERN AGRICULTURE. SO THE FIELD IS WIDE OPEN AND THOSE OF YOU WHO ARE AMBITIOUS, INNOVATIVE AND DEDICATED TO THE PROPOSITION OF PRODUCING BEEF FOR THE TABLE AS QUICKLY AND CHEAPLY AS POSSIBLE WILL SUCCEED AND HAVE A VERY WONDERFUL FUTURE.

THANK YOU.
It is an honor to be a participant in your 1981 Convention and I appreciate it. Ellis Freeny asked me to talk about the total cattle industry both from the short term and for the next five to ten years.

Cattlemen do not have to be told that their industry is in trouble. Cattle prices for the last two years have driven that fact home. Current information of cattle on feed or general economic forecasts of the US economy do not forecast much improvement for at least the next six months. The "Big" questions are "What has happened to the cattle industry which was the star of agriculture for thirty years?" "Will the old cattle cycles still occur?" "When will the industry become profitable again?" These questions and many others are on everyone's mind.

Whenever severe reverses occur they need to be studied and analyzed. What different events have happened? Why is beef less popular than formerly? How can the situations be changed?
The analysis shows that the basic problem of the cattle industry is world-wide inflation and high interest costs caused by the oil embargo of 1974 and our current dependence on OPEC oil for our daily existence. Literally the people of all nations are experiencing the same tough economic problems that we see in the United States. The high, permanent cost of all energy is beginning to change many industries. The cattle industry is a classic example of the changes being forced upon it. The farm to market retail spread has increased dramatically because of transportation costs and energy costs at both the slaughter and the retail levels. Because these changes are so permanent and so basic, it is plain to see that the cattle industry will never recover its former prominence in agriculture.

That is a strong statement. Surely there will be better times next month, next quarter, or next summer; however, large supplies of both red and white meat reach well through 1982. Close analysis is not very optimistic.
FOR TWO YEARS PRICES HAVE BEEN BELOW THE COST OF PRODUCTION, BUT THE INDUSTRY HAS INCREASED CATTLE NUMBERS BECAUSE THEY BELIEVE THE CATTLE CYCLE WILL REOCUR. THE CATTLE INDUSTRY HAS REFUSED TO REALIZE THAT POULTRY AND PORK HAVE ALSO BEEN INCREASING PRODUCTION AND BECAUSE BOTH OF THOSE INDUSTRIES ARE MORE EFFICIENT, THEY HAVE BEEN MAKING SOME MONEY WHILE THE CATTLE INDUSTRY’S LOSSES CONTINUE TO MOUNT. BACK IN OTHER TIMES WHEN COSTS WERE LOWER AND CONSUMERS HAD MORE DISCRETIONARY INCOME, THESE EFFICIENCIES OF COMPETITIVE PRODUCTION WERE NOT SO NOTICEABLE. NOW AS POULTRY AND PORK CONTINUE TO GAIN EFFICIENCIES AND THE CATTLE INDUSTRY STANDS STILL, IT BECOMES EVIDENT THAT THE CONSUMPTION OF POULTRY AND PORK WILL INCREASE AND BEEF WILL DECLINE.

THE SLAUGHTER PLANTS CUT AND PACKAGE THE CHICKEN IN MANY DIFFERENT WAYS. THE PACKAGES GO TO THE RETAIL STORE IN A CARDBOARD BOX READY TO PLACE IN THE RETAIL COUNTER. THE STORE'S NEEDS FOR LABOR, EXPENSIVE SPACE, AND ENERGY FOR REFRIGERATION ARE ALL REDUCED. TODAY MOST STORES WOULD RATHER HANDLE POULTRY THAN BEEF BECAUSE IT IS EASIER AND MORE PROFITABLE.

These are the many reasons that broiler consumption has increased 500 percent in the last 20 years. Turkey has almost the same success story and may have even more potential for the future.

Pork has not been so spectacular, but slow, steady progress has constantly been achieved. The pork industry has changed from lard type hogs to lean meat producing hogs. This has meant changing breeds, adopting strict crossbreeding practices, and drastically changing production methods.
Pork producers have a good product; much of it is now packaged ready for the store. Efficiencies of production have brought them to a production level of one pound of pork for four pounds of feed. Great strides have been made in leveling out production cycles so storage costs have been reduced. Pork is truly a formidable competitor to beef.

Today, the American consumer is buying all meat protein at cheap prices. The total supply of red meat and poultry on a per capita basis is greater than ever before. All meat production is in a loss position, but the poultry and pork losses are very small compared to beef. This year's tremendous grain crops have reduced feeding costs. Poultry, pork, and beef are all increasing tonnage. It is obvious that with increased meat production beef will eventually be the biggest loser.

The only hope of the beef industry, in my judgment, is to reduce cattle numbers about 25 percent from current inventories. This would reduce the pounds of beef per capita
ENOUGH SO THAT BEEF PRODUCTION WOULD BECOME PROFITABLE. THIS REDUCTION IN NUMBERS COULD BE QUITE ORDERLY IF PRODUCERS WOULD CULL HEAVILY FOR BOTH QUALITY AND PRODUCTION ABILITY. THE REMAINING CATTLE HERD NEEDS TO BE BRED AND DEVELOPED TO MAKE THE MOST OF THEIR GROWTH ON GRASS OR WASTE CROP RESIDUES WITH ONLY A SHORT 100 DAY FEEDING PERIOD IN THE FEEDLOT. THIS IS ONE EXAMPLE OF EFFICIENCIES THAT MUST BE ADOPTED BY THE CATTLE INDUSTRY TO REMAIN COMPETITIVE WITH OTHER FOODS.

Now to be specific about short term markets in the next six months. Last week the November 1st cattle on feed report was issued for the seven states. The report showed 9 percent less cattle on feed than a year ago, in fact the smallest November 1st number since 1974. On the surface, the report is bullish because of shorter numbers. However, if this report and the October 1st report are carefully analyzed, it is difficult to be very optimistic.
The cattle feeding industry has placed fewer cattle on feed for the last several months with no real market improvement. The reason being is that really only heavier cattle are being placed. The USDA terminal market statistics show that feeder cattle moving through the markets are about 25 pounds heavier than last year. Cattle Fax weekly placements show 40 to 50 pounds heavier. It is true there are fewer cattle on feed, but up front market ready cattle remain about constant. This new phenomenon of beef production is likely to continue. Calves and light cattle can no longer be fed in feedlots as efficiently as in former years. Labor costs, overhead, death loss, and high interest costs force the younger animals to stay on cheaper feed of some kind.

The more serious problem is that the July 1st total cattle inventory showed an increase in all classes of cattle. The industry has placed fewer cattle on feed every month since July so cattle numbers are building. Sooner or later all animals have to be sold either as non-fed beef or be
placed on feed. The cattle industry is slowly going broke at today's prices. What will happen when the industry markets 10 percent more? Before 1982 is over heavier marketing of cattle will have to occur.

Looking ahead for the five to ten year future is very difficult because no one can guess what the reaction of the total cattle industry to continuous low prices will be. There are about 1,250,000 cattle producers in the United States who own cows. How many of these will sell out and quit beef production? How many producers will accept the challenge of increasing the efficiency of their cattle so they can be more competitive with pork and poultry? If it is true that feeders will be grown for a longer time on grass before going to the feedlot, then there will be less grass for the cow herd. This will be a favorable change because the cow herd is the producing meat factory. What other options do cattle producers have? Some can plow their grass and grow crops. Some ranchers can shift to recreation or raise wild animals for hunting. Some western mountain areas will be needed for water development for urban use.
Some ranchers have no other options. They must raise cattle. These are the people who must bite the bullet and make the tough decisions.

There is currently a tremendous difference between the very efficient and the least efficient ranchers. Many ranchers only produce a 50 or 60 percent calf crop. A few ranchers have a 95 percent calf crop. Some ranchers wean 300 pound calves; others wean 600 pound calves. A few ranchers produce feeder cattle that will gain four pounds a day or more in the feedlot. Most ranchers produce feeders that will only gain two to three pounds daily.

Our competitors, poultry and pork, have eliminated all of their inefficient production. The cattle industry has not started to eliminate their inefficiencies and that is the industry's greatest challenge.

The cattle industry can no longer afford the prejudice of breeds, color, and size. Neither can they afford to select their breeding stock entirely by eyeball. Cattle are only good for one purpose and that is to produce beef for
the table. The product known as beef must be closely defined and produced to fit the market of the future. Steers must weigh 1050 pounds to 1150 pounds and heifers must weigh 950 pounds to 1050 pounds so that the cuts all fit the same box and literally the animals must all grade choice.

This will be the only market of the future. The retail cuts will be made at the slaughter plant, packaged, and made ready for the retail counter. A cut that is too small or too large won't fit the bags and the boxes so there will be no good market for those animals. There will only be one game in town--either producers will meet the needs of the consumer or not produce beef.

The opinions and suggestions that I have made cover the areas of what problems are ahead and what must be done to meet them. The life cycle of an average cow is about eight years. The cattle industry cannot be changed overnight; however, the industry is far behind our competitors so everyone should expedite change as rapidly as possible.
There are three areas that every cattle producer can do immediately which will help the entire cattle industry now. First, support your local cattle association and your national cattle association so that you are assured of a political climate in which your business can exist. Second, support more beef research and promotion. Some present beef consumption can be saved by some good promotion and advertising. If good research is funded to prove the value of beef in the diet, then some beef consumption increase might occur. Third, and at the moment the most important, is to support the new proposed beef grade changes and see that they are adopted as soon as possible. This simple beef grade change is the single most important event that can improve the beef cattle industry.

Let me elaborate on the importance of the proposed beef grading changes.

1. The only common denominator or price making mechanism for beef cattle in the United States is USDA choice grade. We no longer have a central market system.
BEEF IS TRADED NATION WIDE AND ALL PRICES FROM THE PUREBRED BREEDER TO THE FINAL CHAIN STORE OR RESTAURANT ARE BASED ON A PARTICULAR CARCASS OR CUT AND HOW IT RELATES TO USDA CHOICE.

2. PRESENT BEEF GRADE STANDARDS PRODUCE BEEF THAT IS MOSTLY YIELD GRADE # THREE. WHEN FEEDERS ARE CARELESS OR STUBBORN, MANY YIELD GRADE FOURS ARE PRODUCED AND SOLD AT HEAVY DISCOUNTS. THE NEW PROPOSED GRADES WILL PRODUCE A HIGH PERCENTAGE OF YIELD GRADE # TWOS WHICH CAN BE SOLD AT A SUBSTANTIAL PREMIUM. THIS IS THE MOST IMPORTANT PART OF THE GRADE CHANGE, BECAUSE IT WILL INCREASE CATTLE PRODUCERS' INCOME.

3. BEEF CARCASSES WILL GRADE CHOICE A FEW DAYS SOONER, WHICH MEANS A SAVING OF FEED, LABOR, AND INTEREST. MORE IMPORTANT IS THE FACT THAT THE CARCASS WILL BE LIGHTER, WITH LESS FAT, AND MUCH MORE DESIRABLE TO THE CONSUMER. BEEF TONNAGE WILL ALSO BE REDUCED.
4. The new grades define a weight and fat content that gives direction to the industry of what kind of beef the consumers demand. Much of the present confusion of what kind of cattle to produce would be eliminated.

5. Approximately 50 percent of today's beef is being boxed. Consumer packaging at the slaughter plant is the next big improvement to make beef more competitive with poultry and pork. The new grades will help move this improvement forward.

These five advantages will accrue quickly to the beef cattle industry and immediately will make the industry a better competitor for the consumers' food dollar.

These are tough times in the cattle industry. The problems will not go away. The cattle industry must realize where the problems are and start to correct them immediately. Beef producers who are aggressive and meet the challenges will survive and the beef industry of the future will be very good to them. I urge all of you to be survivors.