PAUL FRIEDRICHSEN: Well, when Stan asked me if I could put together a little something on agriculture, especially as it pertained to Harney County, I told him that I would be glad to do it. I'd have to bring my brains along with me here. Kind of like the old saying, "Figures can't lie, but liars can figure," I guess. And anytime you deal with statistics, it's difficult to keep everything in perspective.

I'm hoping what we can do is cover a number of items today, and if it would generate some questions in your mind, I'd be happy to answer them. I think there's a number of things that are taking place not only in Harney County, but in the nation, and I guess worldwide as far as agriculture is concerned. And you might have some questions or thoughts concerning those things.

The question has been raised, especially in the last few years, of whether the world can feed itself as they expand the population rate. In 1916 there was 1.7 billion people on the earth. In 1978 there was 4 billion people. And by the year 2000 it's projected that there will be 7 billion people, as far as the world population is concerned.
The 4 billion people that there were in 1978 had 20 percent more food to eat than the 1.7 billion people did in 1916. And this just gives you a little idea as far as what's taking place in agriculture development. I know we're throwing out a lot of figures here, but mainly it is what has happened as far as agriculture is concerned worldwide, and are we keeping pace?

Now there are a number of concerns I guess that we can look at ... but at the present rate there's approximately 200,000 people a day being brought into the world. In other words, each day there is 200,000 more mouths to feed, as far as agricultural production is concerned.

Now when we look at it on a U.S. basis, and I think the United States has been criticized at world food meetings and so on, that 6% of the U.S., or 6% of the world population which lives in the United States is using 25% of the world's resources. But it is very seldom brought out that only one tenth of 1% of the world population is supplying 25% of the world food supply, and that is the United States farmer.

Now when we look at it in another way, in Africa and Asia it takes about five days of labor to produce a hundred pounds of grain. And in the United States it takes five minutes worth of labor to produce that same hundred pounds of grain. And one other figure I guess we'll throw out before we start looking at the Harney County situation is that the United States provides 84% of all the world's food aid over the last 25 years.

So, I think, really, the American farmer is to be complimented for the job that they are doing, I guess not only the American farmer, but really our system of government and production in being able to produce the way they have up to this day.

Now if we look at Harney County, and I think this is what many of you are interested in, in the past three years the average agricultural income derived from agriculture in Harney County has averaged about $15,000,000. Maybe slightly lower than that because '76 and '75 were not good
years as far as agriculture was concerned. About one and a half million of this comes from crop production, and the balance comes from livestock production here in this county.

Now I think all of you, or all of us, have noticed considerable changes taking place as far as agriculture in the county, or at least apparently. We've seen a lot of irrigation development in the past three years in the Harney Basin, and all through Harney County. We are limited, a great deal, on what kind of agricultural production we can get into because of our climate situation. And basically, right now we're still in a forage and small grain situation as far as agriculture is concerned. Now that is not to say that there aren't other crops that we can grow here in the county. It's not to say that there aren't other crops that down the road we'll be looking at possibly, but as the economics of it are right now we're in basically a forage and small grain production capability.

We are not in a very good situation to compete with other areas as far as vegetable production is concerned, being that potatoes, or spinach, or some of these other crops that would be suitable, could be grown here in our area or in our climate.

The other thing I think we have to look at is about 80% of Harney County is in public ownership. It's somewhere between 78 and 80 in federal and state lands. And basically, with our livestock economy, much of our increased development will have to coincide somewhat with what will be taking place on our public domain. For instance, as far as their developmental increase or priorities in livestock production, would be concern.

Now there are areas that we are working on as far as base property is concerned. But much of this the people have a difficult time of coordinating what they are doing on base property, with what they are able to do on public lands, with them being dependent on public lands. For instance, irrigated pasture. We are in a situation where we can grow and are going to be growing increased amount of irrigated pasture. What has to be worked out is the coordination between when these
animals, when the livestock, are on public lands and when they are on private lands. And I think that this is something that over the long pull will need to be looked at.

Now what are some of the problems I guess that we're faced as far as agriculture is concerned. Are we able, are we going to be able in the year 2000 or 2020 or 2050, if things keep going in that way, to feed the world population? I think it will be a matter of work priorities or place. Right now, the U. S. Department of Agriculture is running into some serious funding problems, not so much in the amount of dollars that are being funded for agriculture, but in where the priorities of those dollars are being placed. Agriculture research is being seriously restricted and curtailed as far as commitment of dollars. Where the social program of food stamps and this end of it is being increased.

Now what is going to be difficult is for our U. S. agriculture to maintain its productive capabilities if agriculture research is not maintained or at least maintained.

The other thing that we're coming into I think, some serious problems is, and I think maybe all of you business people are faced with the same thing, is just the matter of inflation. It used to be in years of hard times, like agriculture has experienced in the years '75 through '77. Now I should maybe say agriculture painted with a broad brush. There were some facets of agriculture that did do well during those times, but as a whole, and as the area that we're concerned with here, the livestock industry and small grains had a pretty rough go the last three years.

I just got a copy today of Kiplinger's Agricultural Newsletter, and one of the things it said in the back here, "There is growing concern at the White House about food prices. A fear food costs might rise at 6-8% in 1978, instead of the 4% forecasted earlier. A reviving of most visible form of inflation. And there is real concern as far as Carter’s administration is, that food costs are going to rise at maybe the 6 or 8%." From us who are working in agriculture we're saying that if it doesn't
rise at that rate we're going to be in trouble from the production level.

So, the politics, I guess, of a small minority now of almost right at two million farmers in the United States, not having near the representation they did have in the past. And we can go through periods of three or four years of depressed prices, as far as a producer is concerned, but there is real resistance of this 6% increase, so to speak, in food prices in one year, this coming year. But no mention is made to what happened the last three years. This is a concern to me as I work with agriculture and see the problems some of these people are faced with.

I think the other concern would be is as I mentioned, the problem of priorities as far as agriculture research, and keeping up with our production capabilities, is the restrictions that are going to be faced, or agriculture is going to be faced with as far as one environmental protection. And I'm not taking a stand and saying that environmental protection isn't good. I'm just saying that as these concerns are brought forth, it does place more restrictions as far as agriculture is concerned. One, the availability and types of pesticides that we'll be able to use. And two, the costs, I guess we could say the cost of getting new materials registered for use, and available for use as far as production agriculture is concerned.

Now I think what I will do is ask if there is any questions that you people have concerning either our local situation, or what's been happening on a nation wide basis. I don't know if I can help you on a nation-wide basis too much, but I'll try.

QUESTION: What's our ground water situation here; do you have any handle on it? We're doing an awful lot of pumping with some rather shallow wells, as well as ... What are we looking at in the water production?

PAUL: Well right now Harney County is in a pretty good situation, and I'm saying right now. We did run into some problems during 1977 because of the drought. There were wells that went dry.
There were wells that caved in. There was a number of things that happened. There were people that had to deepen wells. But basically, if you look in the Harney Valley, we're looking at a lift of probably forty to fifty feet is what the normal lift would be as far as pumping water. Many of those wells that had problems were no deeper than a hundred feet, or a hundred and ten feet. Now there were a few of them that were deeper than that, but I'm just saying, you know, using some generalities. I would not say that really our water table is in trouble, because many of the wells that were monitored by the state engineer's office, some of them didn't show much decline at all, even last year. Others showed some decline, but it wasn't real drastic, considering the weather conditions we had for maybe the last three years. We haven't had a real good water year. Now there does really have to be some real study, I guess, on our ground water capabilities. But when we look at the area around us as far as where this watershed is coming from, and then the amount of land that we really have suitable for pump irrigation on. I'm really pretty optimistic about what our ground water situation will be. Yes.

QUESTION: I'm an ex-farmer and rancher, and I always thought that when you talk about year 2000 or 2050 whatever you talked about, it seems to me the government is going to have to turn loose some of this land where they can put it into agriculture. I think that's our biggest holdup, and one of the reasons why things are shooting up.

PAUL: Of course, this is a matter of priorities. In the Bangladesh, India area for instance, and also in Asia, now in Asia they say there is a capability of doubling the irrigated land, the irrigated agricultural land in the Asian Common. In that Bangladesh, India area that I was talking about, there is roughly 40 million hectares of land, which is, there is two and a half acres per hectare, so that's about a 100 million acres of land, that if they could get water on, would be quite suitable for agricultural production. Now there is a tremendous amount of area that, you know, we look at the
year 2000 --- I'm an optimist when it comes to saying we can supply our, you know, the food needs of the people at that time. But many things have to be done as far as where priorities are. Now they estimated to bring that in 1976, I think, the estimate to bring that Asian part into full agriculture production, or irrigated agricultural production, would cost about 40 billion dollars. Well of course this figure is going to continue to climb, and that is kind of an awesome figure. But when you look at it, what is spent for defense and war supplies worldwide I guess it isn't that awesome of a figure. So, it really is a matter of where people want to place priorities.

Now in the India area, and getting back to his question a little bit, that is arid land. And something would have to be done as far as irrigating that. But there's been talk, and some fairly logical, and it seems kind of weird in a way of floating icebergs into some of these areas and using that as a fresh water supply for irrigation. I guess the potential of that is real great, and the cost is also high. But it is just a matter of when the cost and the cost benefit ratio would match up, I guess, and the technology to do it.

QUESTION: I'll just take Harney County for example, I mean I'm originally from New Mexico where it's dry land wheat and they raise a lot of dry land wheat. They don't have to have all irrigation. There's hundreds of thousands of acres here in Harney County that could be raising wheat on it that is government land.

PAUL: Well we've got --- one we have, you know, up to date as far as our yields and weather situation; we have a very difficult time raising dry land cereals in Harney County. Our rainfall patterns are not what they should be for doing that, and also soil depth and this sort of thing. Now there is that opportunity, I'm sure there are many acres of federal land, especially in the South End, that would be suitable for irrigation development if the ground water resources were there, and the need was there. What we've looked at up until this time is that agriculture has faced its biggest
problem of over production in the United States. And I think that the federal, either BLM, or there was some land utilization projects plans in Butte Valley of California I know that were taken up during the drought of the '30's. And the National Grasslands, is it Chad (Bacon), that were also picked up that way. Now they’re with the Forest Service administering those, but they said well during periods of over supply of agricultural products that they felt that they would be remise in letting any of that land go back into production. So, there's that end of it too, and I don't know just where this is going to balance out. But as far as we're concerned on developing our resources in Harney County, I would have to admit that probably some of the greatest potential is on publicly owned lands, as far as seedings or rangeland developments that would increase carrying capacity maybe from fifteen acres per AUM. I don't know whether that is the average now, but it's probably somewhere in that, they could probably cut it in half or they could cut it down considerably. That every AUM of grazing is worth $20 of gross Ag. income. So, we could really shore up our agricultural income from development on public lands if those public lands were devoted for the cows, so to speak, or for agricultural production. Any other ...

QUESTION: That was interesting, ... was worth $20 in agricultural production. An animal unit month ... I have no idea what it is now. If you did get into the development of that sort of thing ...

PAUL: Well, what I'm saying, Stan, that $20 is what it generates as far as gross agricultural dollars to the community. But there is tremendous amount of cost as far as producer goes, other than what he is paying as far as his fee on public lands. The fee that he is paying on public lands is not by any ways, or any means the largest part of his costs that he's incurring during the production of that calf, so to speak, when it gets ready for market. He's got his fixed costs of, well it's pretty close to, I don't know whether I should say fixed costs, but his calving costs are pretty close to a $100 per cow, or maybe they're more. It depends on the operation. But what I am saying is that each AUM in the
county, when we look at the dollars that the county brings in, and the number of cows that our area or that the carrying capacity is, that each animal unit month of grazing is worth, can be prorated back on the $20 of gross Ag. income generated to our county.

QUESTION: That's where I got lost.

PAUL: Yeah, okay.

QUESTION: Well, you're figuring about six fit calves to get $20 a month per AUM.

PAUL: I'm not talking about $20 a month. I'm talking about when you look at 60,000 cows that, breeding cows, that we have in the county, and you multiply 60,000 times 12 that's 720,000 animal unit months. And you take our gross Ag. income generated from livestock and divide that out, and it balances out, that every animal unit month of grazing then generates $20 of gross Ag. income.

QUESTION: ... it can't.

PAUL: It does.

QUESTION: ...

QUESTION: You've got to have about 100 cows out there to get 80 calves, you're not getting $200 dollars a calf out of this.

PAUL: Well ---

QUESTION: That's your gross ... you get 300 pounds in a year.

PAUL: If you take just a yearly basis at 40 cents, or 45 cents, you would come out with $20, or you know, I mean the gross income would generate that much.

QUESTION: Well, you'd have to have 110 percent calf ...

PAUL: No you wouldn't.

QUESTION: Well I've never seen a rancher gross $240 ...

QUESTION: Well I know where you got lost ... I got lost in the same place. Its theoretical figures
is what he has.

PAUL: Yeah, you have to, I mean, you have to ... one guy has ten head of cows or something and that automatically does the X number of things. But you look at it in the broad scale, and if you look at, what I'm saying, if you look at taking a big chunk and say your costing of maybe 100,000 AUM's, if we could increase the carrying capacity of our rangelands by a 100,000 AUM's, you would generate roughly $20 of gross Ag. income for every AUM you increase.

QUESTION: Yeah, because you would relieve some of the ... production. I know where you are, and that's the reason I brought the question up. ... But I know how you arrived at it. It's a ... figure rather than ...

MAN: Do you have any other questions of Paul? If not, on behalf of the Lions Club I would like to ... (Applause)

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