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THE FOOD SUPPLY: WILL THE CUPBOARDS BE BARE?

HEARING

BEFORE THE

SPECIAL COMMITTEE ON THE YEAR 2000 TECHNOLOGY PROBLEM UNITED STATES SENATE

ONE HUNDRED SIXTH CONGRESS

FIRST SESSION

ON

MOVING TOWARD DISPELLING THE FEARS AND EDUCATING AMERICANS ABOUT WHAT TO EXPECT LESS THAN 12 MONTHS AWAY

FEBRUARY 5, 1999

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SPECIAL COMMITTEE ON THE
YEAR 2000 TECHNOLOGY PROBLEM

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THE FOOD SUPPLY: WILL THE CUPBOARDS BE BARE?

FRIDAY, FEBRUARY 5, 1999

U.S. SENATE,
SPECIAL COMMITTEE ON THE YEAR 2000 TECHNOLOGY PROBLEM,
Washington, DC

The committee met, pursuant to notice, at 8:33 a.m., in room SD–192, Dirksen Senate Office Building, Hon. Robert F. Bennett (chairman of the committee), presiding.

Present: Senators Bennett, Smith, Stevens, and Dodd.

OPENING STATEMENT OF HON. ROBERT F. BENNETT, A U.S. SENATOR FROM UTAH, CHAIRMAN, SPECIAL COMMITTEE ON THE YEAR 2000 TECHNOLOGY PROBLEM

Chairman BENNETT. The committee will come to order.

I apologize for the early morning hour of this particular hearing. It was scheduled because we assumed that the Senate might be otherwise preoccupied in the afternoon. Due to the importance in nature of the year 2000 problem, we did not want to delay the hearing because of the Senate's other activities. But now the Senate is not in session this afternoon, and we could have started at what some would consider a more civilized hour. But it may be symbolic of the urgency that we face here. We are—what is it?—329 days away now.

I have been interviewed by Reuters, the news agency, at some length on this issue, and we have reported, I think accurately, that the securities industry and banking industry are ahead of just about everybody else on the year 2000 problem. I have said all along you do not know where the problems are going to hit and you do not know what area that you regard as being compliant can do to you. Here is a report about the Lippert Company, a subsidiary of Reuters. Part of that industry that we have reported as being in the best shape missed a particular item in their computer world and suddenly discovered with 1999 coming along that they had problems, and for some 3 weeks they were giving inaccurate data with respect to the tracking of mutual funds. The press, on the reputation of this organization, was repeating that inaccurate data. So, for a period of 3 weeks before a software patch was sent out, people were receiving wrong information with respect to the performance of 37,000 mutual funds and presumably making some wrong investment decisions. Steve Lippert, a senior vice president, put it rather well. He said, "We goofed."

That is the purpose of this committee, that is the purpose of these hearings, to get as many people as possible as alert as we can to the various problems that can occur. I am absolutely convinced that when the year 2000 comes along, there will be repetitions of this in areas of very responsible people. The Lippert Group is a very responsible group. I want to make it very clear I am not singling them out in any way for doing anything that is inappropriate. But there was one thing that slipped between the cracks, and unbeknownst to anybody, it hit. Fortunately, it was a relatively minor issue. It was not life-threatening in any way and it was remediated in a matter of weeks. This illustrates to me once again how important it is for us to focus on these various areas.

Today, we are focusing on the food industry. This is the first hearing of this committee in the 106th Congress. We have had ten hearings since—or this is the tenth hearing—the inception of the committee last April in the 105th Congress. We have been trying to answer the questions that we get everywhere we go with respect to the Y2K crisis. Will the lights turn on? Will the banks have cash? And will I be able to drink the water?

At its core, the Y2K issue has forced us as a society to focus on and confront our vulnerabilities in this computer age, vulnerabilities of which the Founding Fathers living in an agricultural world had no understanding. We do this as individuals and as a nation and as companies and as organizations.

It is ironic that the advent of time- and labor-saving technologies that provide us with the comforts and conveniences that are beyond the wildest dreams of the Founders—have given us a concomitant series of vulnerabilities in the very basic human needs: food, water, and shelter, remaining unchanged for thousands of years. So we made the food industry the focus of today's hearing.

To put this in perspective, in this land of plenty, we manage to feed not only our own population of 260 million people—indeed, overfeed in terms of some of the figures on obesity—but we export $70 billion worth of food products every year. America is thought of as a high-tech exporter; agricultural exports are just as important as any other segment of our export markets.

We are not used to food shortages or even the threat of food shortages. We take it for granted that our neighborhood grocery stores will have the shelves stocked with food products that are safe and affordable, and, in addition, we expect variety. We demand everything from frozen TV dinners to fresh vegetables, all under one roof; live lobster shipped overnight from New England, sitting side by side in the supermarket with fresh lettuce 72 hours from being picked in California. We demand high quality and a choice of different brands.

Well, in this world, the committee staff is still flooded with calls saying, "Will there be food on the shelves?" There is talk of stockpiling and some concern about the impact of panic-induced shortages. It is vital that the food industry address this crucial question and that this committee provide a platform for people to address this question. This is the reason for the hearing today.

Is there a need to stockpile? And, like the other Y2K questions, will stockpiling itself lead to shortages that will then create a crisis as bad as the crisis that stockpiling is attempting to avert?

These questions will not be answered definitively here today, but they will be addressed. We hope we will get information that will move toward dispelling fears and educating Americans about what to expect less than 12 months away.

Now, I have more information about the food industry which I will put in the record. I will note, for those who would say agriculture is pretty basic and it is not high tech, that agriculture is very high tech. We could not feed 260 million people and produce enough excess food to export $70 billion worth if we were going by old agricultural methods. The industry has integrated modern information technology into processes that increase productivity, yield, and profitability. More than 80 percent of American farmers use computers as an integral part of their business. A third of those are connected to the Internet, and 75 percent of the farmers own a cellular phone.

In 1994, farmers began to use the Global Positioning System [GPS] to leverage their capability to pinpoint location information about specific field areas. This accurate location data eliminates guesswork in determining yield variances, crop damage, and soil fertility.

A century ago, the average U.S. farm output fed eight people. Today it feeds 212.

Now, I talked about farmers. In my formal statement that I will file are comments about ranchers, processors, manufacturers, others that we will hear from today. The reason we have made food the No. 1 issue in this first hearing is that in October members of the Gartner Group predicted a 66 percent chance that a mission-critical failure would occur within farming and agricultural industries, and that is much too high.

One thing I have learned in these hearings is that whenever I use a statistic like that, people on the Internet immediately cast it in stone, and it is thrown back in my face 6 or 8 months later as still being accurate. If there is ever a situation that was a moving target and a work in process it is the Y2K challenge. Since that assessment in October, the Food Supply Working Group, chaired by the USDA, has been working to change that number. They do not have a number other than 66, but the state of readiness in the food industry they say is encouraging. That is a nice word. We want to be a little more definitive about it today.

So we will hold two hearings in the committee. We want to check the entire food chain from "farm to fork," if you will. Today's focus will be on the farm side, and the second hearing, which is scheduled later this month, will be on the fork side. Today we will hear from producers and processors; in the next one we will hear from manufacturers, distributors, and retailers. I hope that as a result of these hearings we can get accurate information that will alleviate panic and at the same time inform those who have every legitimate reason to be concerned.

[The prepared statement of Chairman Bennett can be found in the appendix.]

Chairman BENNETT. With that I welcome Senator Smith, who himself is part of this industry in his day job, or previous life, or whatever you want to call it, for any opening remarks he may have.

STATEMENT OF HON. GORDON SMITH, A U.S. SENATOR FROM OREGON

Senator SMITH. Thank you, Mr. Chairman.

It is a pleasure to be with all of you today. It is always my pleasure to be in the company of Senator Lugar, the chairman of the Ag Committee and a mentor of mine in foreign policy, and the Secretary of Agriculture. We welcome all of you.

It is true that in my former life I was a food processor. Without a doubt, I am the biggest pea picker in American politics today. [Laughter.]

I was just thinking, as I listened to your opening statement, Mr. Chairman, that when I was born in 1952, I believe frozen peas sold for about 20 cents a pound. Today they sell for about 20 cents a pound, and yet they are still produced in spite of the lack of inflation in food. The increase in productivity has truly been remarkable, and that has come about through high technology. That has come about through computerization. That has come about through efficiencies unimagined—what am I now?—46 years ago.

I think it goes without saying that that productivity is truly in peril if, in fact, the agricultural community is not prepared for Y2K. And so I am pleased that so many representatives from an industry that I love and care for a great deal are here and are taking steps to make sure that the food chain is not interrupted.

So, with that, I turn it back to you, sir.

[The prepared statement of Senator Smith can be found in the appendix.]

Chairman BENNETT. Thank you.

We will begin with the testimony of Richard Lugar, Chairman of the Senate Agriculture, Nutrition, and Forestry Committee.

Senator we are honored by your presence. We are always glad to have your wisdom. I want to take the opportunity to publicly thank you and your committee for your efforts in addressing this problem. We have had a little bit of difficulty on this committee energizing some of the so-called old bulls of the Senate who chair the major legislative committees, but that is clearly not the case with you, and we are delighted that you are here.

You will be followed by Secretary Glickman, who will give us the USDA's assessment, and we think from the two of you distinguished public servants we can get a good picture of how the government views this.

So, with that, sir, we are happy to hear from you and look forward to what you have to tell us.

STATEMENT OF HON. RICHARD G. LUGAR, CHAIRMAN, SENATE AGRICULTURE, NUTRITION, AND FORESTRY COMMITTEE

Senator LUGAR. Well, thank you very much, Chairman Bennett, Senator Smith. I really am grateful for this opportunity to appear before the committee, and I thank you for your remarkable and courageous, farsighted leadership in this area.

The food industry, as you have already pointed out, is vast and complex. We are fortunate in America to be able to choose from so many food products. In order to make those choices available, intricate production processing, packaging, storage, and transportation systems must function without flaws. Agricultural producers and

food suppliers, like many other businesses, are heavily dependent on computerized processing and information exchange. Our modern and efficient food industry, from irrigation and milking equipment to food-processing assembly lines and refrigeration, faces potential year 2000 problems. The food supply chain's year 2000 readiness is crucial to the availability of food and to our Nation's economy.

The agriculture sector contributes 13 percent to the gross domestic product. Even though the United States has a trade deficit of $212 billion currently, we have an agricultural trade surplus of $16 billion.

The Committee on Agriculture, which I am privileged to chair, held two Y2K hearings last year. At that time, little was known about the potential impact of the year 2000 problems on the food supply. At our July 22nd hearing, Dr. Ed Yardeni, a respected economist and year 2000 problem observers, said, "I am concerned that no one on this planet is assessing the potential negative impact of Y2K on the global food supply."

I would add parenthetically, Mr. Chairman, as you are aware, Ed Yardeni's report dated January 25, 1999, repeats his 70 percent recession forecast and finds that much of the encouraging talk still, as far as he is concerned, is, as you said, not a weasel word but a comforting word, perhaps without the accuracy it requires.

Your letter of invitation indicated the purpose of the hearing was to examine how the food industry is responding to the challenge from farm to fork. When the President's Council on Year 2000 Conversion realized the daunting task of assessing the readiness of the food chain, the Food Supply Working Group was created. This group, led by officials of the Department of Agriculture, is charged with the responsibility for determining the year 2000 readiness of the U.S. food industry and how the millennium bug problem might affect foreign countries as markets for American agricultural products and as suppliers to our Nation. I commend them for their work and am delighted to have had a chance to chat with Secretary Glickman, and you will have that opportunity shortly.

I am confident the Secretary will testify to the findings of the assessment undertaken by the Food Supply Working Group, but I want to make a few observations. The group concluded recently, "The state of readiness within the food industry is encouraging. An interruption of the food supply so severe as to threaten the well-being and basic comfort of the American public is unlikely." This is welcome news, but as you have pointed out, Mr. Chairman, government officials need to be cautioned to continue to monitor progress diligently and address each problem promptly. In the past, the tolerance of the American public for systematic disruptions has been very low, and this situation will be no different.

The group's initial assessment also found that ". . . the key markets of U.S. food will likely have a relatively low risk of year 2000 disruptions to their import, processing, distribution and retail chains." Earlier this month, I introduced S. 101, the United States Agricultural Trade Act of 1999. The purpose of this legislation is to open foreign markets for America's agricultural exports and to raise the profile of agriculture in our Nation's trade agenda. One of the most important things we can give farmers is the ability to export products abroad. If the ability to export is affected adversely

by the year 2000 problem, all involved will feel it. Additionally, those countries that rely upon our humanitarian food donations will suffer as well.

In a report commissioned by the Food Supply Working Group, the Gartner Group concluded, "Perhaps the greatest threat to the food supply industry comes from the consumers themselves. Needless and frivolous stockpiling of supplies can create isolated industry shortages." The "just in time" inventory control strategy employed by the food industry could be severely disrupted by the stockpiling of food. The Gartner Group recommended that USDA embark upon a program of information dissemination to inform the public about the unlikely potential for serious interruptions in the U.S. food supply. And I would strongly endorse that recommendation.

Mr. Chairman, while the Food Supply Working Group is responsible for assessing year 2000 readiness, the ultimate responsibility for attaining year 2000 readiness rests with the food industry. Open communication and cooperation are crucial to the success of this undertaking. It has been noted that the larger food companies, as is the case with most industries, are more prepared and better financed to address the year 2000 problem. Some have suggested that those companies should share their strategies and methodologies with smaller firms in an attempt to ensure that all are successful. One kink in the chain could affect the whole system, and I am pleased to see that witnesses from the food industry are coming forward today to share their successes.

I am aware that many corporations, in and out of the food supply chain, have been reticent to disclose their year 2000 readiness out of fear of the potential for litigation. In this regard, I applaud you, Mr. Chairman, and the cosponsors of the Year 2000 Information Disclosure Act of 1998. This law will do much to ease the fears of liability lawsuits and promote the flow of year 2000 readiness throughout the private sector.

Mr. Chairman, I will soon introduce the USDA Information Technology Reform and Year 2000 Compliance Act of 1999. This legislation is similar to a bill that passed the Senate last year. It centralizes all year 2000 computer conversion activities within the Office of the Chief Information Officer of USDA in an effort to ensure that all critical computer functions at the Department are operational on January 1, 2000. I commend this legislation to the attention of members of this committee.

On May 14 of last year, USDA testified before the Committee on Agriculture that 40 percent of its mission-critical systems were already Y2K compliant. The Department's January assessment shows that 71 percent of the mission-critical systems are now compliant. The compliance percentage is improving but it may be misleading. In May 1998, the USDA was tracking 1,080 mission-critical systems. Today, the Department is tracking 354 mission-critical systems. I would just simply say, Mr. Chairman, that I have queried the Secretary of Agriculture here today and others about this. This is a source of considerable distress for us trying to figure out what is critical. I recognize that the Office of Management and Budget revised the criteria for reporting mission-critical systems. Further, as USDA becomes more sophisticated in its approach,

there may be changes to the number of systems being tracked. But I am concerned that some systems removed from the mission-critical category might indeed be vital to USDA's operations and may impair the Department's ability to serve the country.

While the number of USDA mission-critical systems being tracked is decreasing, the cost of compliance is increasing. In May 1998, USDA's Chief Information Officer testified the Department anticipated spending $120 million to address the problem. Six months later, OMB reported that USDA spending would increase to over $160 million. While the supplemental appropriations dedicated to the year 2000 issue that was enacted last year will be helpful, additional cost overruns bear careful scrutiny.

Last summer, in that regard, Mr. Chairman, I recommended to Secretary Glickman that USDA post a website available to the public that shows the Department's monthly progress in fixing the year 2000 problems in its priority mission-critical systems. I am troubled by the possibility that, in an effort to fix everything, some systems having the greatest impact on USDA's ability to deliver services might be missed. The systems included in the top priority category are those with economic repercussions on agricultural markets or trade, impacts on individual financial security, and impacts on health and safety.

As of January 29 of this year, USDA reports that 62 percent of the priority mission-critical systems are compliant. The number of top priority mission-critical systems has remained stable since the website was created, so this poses no particular concern for me at this time. But the deadline imposed by the Office of Management and Budget for implementation of all mission-critical systems, not merely those in USDA's top priority, is March. In the event it appears that some mission-critical systems will not be ready in time, I will want to know and I am sure this committee will want to know what contingency or triage plans are underway to ensure the Department can successfully meets its responsibilities.

I point out in my statement, Mr. Chairman, that the universal resource locator for the website is http://www/ocio.usda.gov/y2k/critical—syst/priority/htm. The chairman and members of this committee, as well as the members of the Agriculture Committee, can visit the site daily if they wish to observe progress in this effort.

I am encouraged by USDA's progress toward year 2000 compliance. Secretary Glickman's personal commitment and attention to this endeavor have been very important, and I urge him to continue to monitor the matter closely to ensure that USDA's computers function properly to serve the American public dependent on information and programs of the Department. I want to also commend the work of the Commodity Futures Trading Commission, the commodity exchanges they regulate, and the Farm Credit Administration and the farm credit system banks for their attention to these important projects.

I visited personally with each of these officials, Mr. Chairman, about their trial runs, about the programs that they have, because, clearly, the commodity futures system is dead if it does not work, and that system is on track. At least, assurances are given to us frequently that that is the case.

I thank the committee for inviting me to present this statement. I am confident that if we, the public and the private sector, work together we will succeed in continuing to assure an adequate and reliable food supply in spite of the year 2000 challenge. I would be pleased to respond to questions that you and the Senators might have.

Chairman BENNETT. Thank you very much. We appreciate your courtesy in being here and your leadership on your committee in helping to keep some pressure on in some vital areas.

We have been joined by Senator Dodd, the Vice Chairman of the committee, as well as Senator Stevens, who is an ex officio member of this committee and, arguably, the most powerful member of this committee by virtue of his assignment on the Appropriations Committee.

Following the rule of those who arrive, Senator Dodd, if we could let Senator Stevens go first?

Vice Chairman DODD. Absolutely. No question about it.

Chairman BENNETT. We will hear any opening comments Senator Stevens may have.

STATEMENT OF HON. TED STEVENS, A U.S. SENATOR FROM ALASKA

Senator STEVENS. Well, I do not want to delay the hearing, Mr. Chairman. I do think this is an issue that is of vital concern to our State. We import 95 percent of our food. We only produce 5 percent of our food. We are very vitally interested in the impact of Y2K on our food supply. I am pleased to be with you.

Chairman BENNETT. Thank you.

Senator Dodd.

STATEMENT OF HON. CHRISTOPHER J. DODD, A U.S. SENATOR FROM CONNECTICUT, VICE CHAIRMAN, SPECIAL COMMITTEE ON THE YEAR 2000 TECHNOLOGY PROBLEM

Vice Chairman DODD. Well, thank you, Mr. Chairman. And let me begin by again commending our distinguished chairman of this committee, Bob Bennett, who has done a terrific job on tirelessly trying to bring the attention of the country and others to this important issue. As he properly points out, one of our strongest allies in all of this from the very beginning has been Senator Stevens of Alaska, who has consistently reminded our colleagues of the importance of this issue through his contacts and communications with people in the high-tech industry and others about the importance of this question. And to Senator Lugar, I have had the pleasure of serving with him. He has been my chairman on occasion in the past of the Foreign Relations Committee, but his views and thoughts on agriculture all of us listen to with a great deal of interest and attention.

I was, Mr. Chairman, thinking that about 60 years ago, when we talked about the breadbasket of America and the problems that might confront it, we would talk about the dust bowl and the boll weevil, I guess, were the threats to America's food supplies.

Obviously, in this day and age, it is a different story. Information technology and embedded systems are almost as critical to the food supply chain as photosynthesis was and is. From the germination

of the seed until the time the product arrives on the consumer's plate, technology plays an ever-increasing role in our food supply. If left unchecked, this digital pestilence, if you want to call it that, could needlessly gnaw away at corporate competitiveness and consumer confidence.

The food industry as a whole has remained largely silent on the Y2K issue, but has quietly expressed confidence in their ability to supply, process, and sell products. Some consumers have interpreted the chilling corporate silence as inactivity. In an attempt to avoid being associated with the Y2K issue, the food industry may have inadvertently contributed to some of the public fear. One way we think to ameliorate concerns surrounding this issue and its impact on food supply is to share information with the public about the preparations that are underway.

According to a Time/CNN poll published in Time's January 18th issue, 59 percent of those polled in the country indicated they were somewhat or very concerned about this Y2K problem. When asked if they would stockpile food or water as a protection, some 33 percent said that they might do so.

Retailers and manufacturers are extremely concerned that these fears could cause a surge in demand by late summer. Preparing to meet the sudden increase in demand takes approximately, we are told, 6 to 9 months of lead time. They must start making decisions now to avoid possible shortages. If they miscalculate and are unable to meet such a demand, this could flame public fears as we move toward December 31, 1999. It is increasingly apparent that a national public information campaign is needed—and I think these kinds of hearings contribute to that—to address the public and business fears by providing recommended guidelines for individual preparedness.

I would like to point, if I could, that the committee tried to have a hearing this past October, but we couldn't find anybody to testify at that time. There were reasons they gave which were not entirely illegitimate reasons that deal with their own products lines and so forth and given the fragile nature of brand names and what it can mean to a business. But I would like to note that the witnesses before us today have willingly come to share their information, and I applaud them for doing so. It takes some courage, but I think a sense of civic responsibility to step up on an issue like this and offer the kind of confidence I am sure they can provide to us that we can avoid the problems that some have raised.

So with that, Mr. Chairman, again, I thank you immensely for your leadership on this issue and am anxious to hear what our other witnesses have to say, but, again, my thanks to Senator Lugar for his advice and counsel this morning.

[The prepared statement of Vice Chairman Dodd can be found in the appendix.]

Chairman BENNETT. Thank you very much. One of the delights of serving in this assignment is the fact that I have Senator Dodd to serve with on the other side. We hear so much talk in the media about how we are bogged down in partisan fighting and snarling and no one can get along. I invite those who feel that way to come check this committee and see that across partisan lines we are about as united and in lock step as I think it is possible to be. That

is a tribute to you, sir, and your willingness to see to it that the minority and majority lines get very blurred as we focus on the issues. We are grateful to you.

Senator Lugar, do you think there is any merit in the Gartner Group's suggestion that USDA should mount a public awareness program? We have heard SBA talk about their public awareness program. We have had a Y2K Week sponsored by the Small Business Administration trying to reach their constituency. What about USDA's activities in that regard?

Senator LUGAR. I believe that they should have a very strong program, and in our oversight capacity, we will work with Secretary Glickman to find the efficacy and the way of doing that.

I would just say that he and the Department are faced, just as this committee is, in asking about farm to fork, that there are a great number of facets of the food industry, and glib reassurance to consumers that it will all be there are unjustified unless there is some credibility at each stage. For example, Senator Stevens has mentioned the Alaska problem, but it is not unique in some vulnerability to shipments. We would just note that at least in our research for this hearing, at this point the readiness level for U.S. motor carriers was 2 on a scale of 1 to 6, for example, and at foreign ports it was only 3, on foreign distribution, 2. This affects the supply particularly of perishables, of fresh fruits and vegetables.

So this is why we ought to try to encourage people to retain a sane view, but at the same time, we really stretch our public service credibility by being too glib about that. And I think what we are doing now is probably the most reassuring, that it is testing out the transportation system, refrigeration. We have vast stocks, obviously, of pork, now encouraging people to slaughter more at the slaughterhouses, to eat more and what have you, very good supplies of the basic grains, but then they have to be processed into the particular things that people buy at the retail level.

So this is a long answer to an obvious question. Sure, a great deal more awareness, but I think some more education as to where the whole food supply is and the various vulnerable parts of it.

Chairman BENNETT. Well, I appreciate your pointing it out the way you did because I wanted to note why OMB and Mr. Koskinen are working so hard to have agencies meet the March deadline, and March is only 1 month away, at least on the calendar, 6 weeks away to the end of the month. People say, well, March is awfully early, isn't it, for something that is not going to hit us until the following January?

March is about right because it leaves you with nine months to test across industry lines. It would be tragic if we said to ourselves, well, the food processors are just fine, the shippers are just fine, the retailers are just fine, everything is just fine, and then we discover that the interconnections between those break down. This is one of the problems that we are finding in the early testing in the financial area, that one agency or one entity, rather, can be in good shape but they are all connected. Of course, if the telecommunications system does not work or, heaven forbid, the power grid does not work, then it all breaks down.

We need at least nine months to test across organizational lines, and that is why I applaud what you have been doing in your Agri-

culture Committee to get people ready in this time, and we are going to hear from Secretary Glickman about how he can meet the March deadline.

I get distressed when people say, well, OK, we will not quite make March, but we will do it by June, and we have still got six months so why are you worried? Well, I am very worried because of the interconnections that have to be tested, and your answer was very responsive to that problem.

Senator LUGAR. Mr. Chairman, may I add parenthetically that I mention in my testimony they are looking at 354 critical systems on the website, and I cited that. But only two-thirds of these apparently, more or less, are ready with the March deadline approaching. Now, Secretary Glickman might have a more up-to-date account today, but even if you are watching the paint dry, that is, tuning in every day to see how it is going, the fact is it is not there. This is just the 354 remaining from the 1,000 earlier with some hope that there is something not lost in the 600-and-some left by the wayside.

So I would stress the triage problem at USDA or anywhere else, and this is not the whole food supply, but if USDA is not up to speed on this, heaven help us in monitoring all the rest.

Chairman BENNETT. Senator Smith.

Senator SMITH. Mr. Chairman, you have already said it and so has Senator Lugar, but I can tell you from firsthand experience that in order to survive in the food-processing and farm industry, you have to be on the cutting edge of technology. And so the equipment utilized today in food production is of the most recent vintage and, therefore, is unlikely to have Y2K problems.

But as you have pointed out, the difficulty is the food-processing and farm industries are related industries, energy specifically, transportation specifically, and the danger to our country and other countries who rely upon us for food is with those areas of energy and transportation.

I think it is a fact—and I will ask the Secretary, and maybe the chairman can tell me. But I think most cities only have about a 72-hour food supply within their borders. And so were there to be a terrible disruption, people would feel it very directly.

I don't know if you have a comment on my comment, but I think it has probably been said several times.

Senator LUGAR. I would say, "Amen."

Chairman BENNETT. Senator Stevens.

Senator STEVENS. Well, I am concerned primarily about the transportation system. I think most individual farmers are going to understand the problem for their own systems and the supply will be there, but importing so much of our food supply from overseas and really the logistics of transportation are really the genius of our food supply system. And if there is a glitch anywhere, you know, Seattle or Portland, our food is going to be sitting on the dock and spoiling, and we are going to have to figure out how to go back and steal the reindeer's food.

I don't know that we have done enough about the transportation system, Senator. My feeling is perhaps we should ask you and Senator McCain to hold a joint hearing of Agriculture and Commerce and find out if the transportation system and the food suppliers are

really coordinating their testing of the integrated system and not just testing the separate portions of the system. What do you think about that?

Senator LUGAR. I think that is a very constructive suggestion, and, in fact, much of the testimony in other times before the Ag Committee has expressed great reservations about the transportation, the railway system of the West in particular, with regard to grain shipments in elevators.

But I think that coordinated focus of this committee indicating that these are integrated systems is very important. I have already cited what I think is a lower level of readiness for a good number of systems that will affect your State, and maybe some others, and in this Y2K Committee surveillance, this has to be a big part of it.

Senator STEVENS. Well, Senator, that is Paul Revere, but we have to have some troops behind him if people are going to really hear this again and again.

Thank you very much.

Chairman BENNETT. Thank you.

Senator Dodd.

Vice Chairman DODD. I think these are critical questions. What I was thinking of, when Senator Stevens said that, is Alan Simpson the other night had the line that this could be "the herd shot round the world" if we are not careful here with the Y2K issue, speaking of the agricultural issue. But I am anxious to hear we have got our very fine Secretary of Agriculture here with us this morning as well, and I am anxious to hear what he has to say.

Thank you very much, Dick.

Chairman BENNETT. Thank you, Mr. Chairman. We appreciate you and your committee and all you have done and your testimony here today.

[The prepared statement of Senator Lugar can be found in the appendix.]

Chairman BENNETT. We next welcome Secretary Dan Glickman. He will provide testimony on USDA's assessment of the food industry, their Y2K preparedness, and, Mr. Secretary, you have been very patient to sit through the opening statements as well as the testimony of Chairman Lugar. So I think you already know what we have on our minds.

We welcome you and your associates here today, if you would like to introduce them so that their names can go in the record, and then at any time during the presentation you want to call on them, of course, they would be welcome. But we want to thank you for being here. We want to thank you for your efforts, your leadership, and your awareness to this. We wish that all public officials were equally as concerned as you are.

STATEMENT OF HON. DANIEL R. GLICKMAN, SECRETARY, U.S. DEPARTMENT OF AGRICULTURE

Secretary GLICKMAN. Thank you very much, Senator Bennett, Senator Dodd, Senator Smith. It is an honor for me to be here. I also want to compliment Chairman Lugar, who has a lot to do with our Department, for basically keeping his watchful eye on us on this matter as well as others.

I would introduce the folks who are with me. Cathy Woteki is our Under Secretary for Food Safety, and she has been in charge of the working group here that you have referred to. Anne Reed is our Chief Information Officer. Mike Dunn is our Under Secretary for Marketing and Regulatory Programs, all the inspection of foods coming in and going out. Gus Schumacher is our Under Secretary for Farm and Foreign Agricultural Programs, so both the production side as well as the export and import side. So there is the right team here who can work on these particular problems.

Last month I was home, and my parents—I am very fortunate. My parents are in their eighties and are both alive and in good health. And my mother says to me, she says, "I don't know about this problem I keep hearing about, but are your father and I going to have enough food and prescription drugs next year?" So it struck me that, you know, it is getting through, this particular issue.

Agriculture is a very complicated mix of low-tech and high-tech businesses together. Certainly as Senator Smith knows, some production agriculture side is not particular high-tech, to the marketing and distribution of agricultural products, which is very high-tech, and more and more traditional production agriculture is becoming very, very high-tech.

Agriculture is also, as Senator Stevens talked about, extraordinarily dependent upon transportation, rail, highway, and particularly shipping in a globalized economy; also on a utility network, a grid system that works. I mean, every aspect of the American economy is similarly part of a big mix of things, but agriculture particularly is affected by this movement of product.

Fifty or a hundred years ago, when most products grown were sold within 50 miles of where they were produced, it was a different world. But now it is not that way. Very few things are produced near where people live. They have to move. And with the globalization, this is really a very significant problem.

So we at USDA, under the leadership of the folks that I just mentioned, are working on this problem. The President's Council on Year 2000 Conversion, you have had Mr Koskinen in before. You have talked to him. This is an issue that they drum in on us all the time, I mean OMB, Koskinen personally: What are you doing? Why are you behind? What is your grade? You know, we get graded all the time, graded by the Congress, graded by OMB. You know, we are not as high as some and not as low as others. Part of the problem is the complicated nature of the food supply.

But we get also questions from citizens, and more and more all the time, who are concerned that food may not be available on January 1, 2000, because of computer malfunctions.

Now, our preliminary studies show that that will not happen. Nonetheless, they raise an important issue which deserves our attention. Working with the private sector—and I am delighted that you have put together a group today of more production agriculture side, but I understand you are going to have the retailing side as well. I really do believe the food industry is taking deliberate steps to make sure that these fears do not become reality.

We recognize that Government cannot solve the Y2K problem alone. The fact is the food moves through the private sector. Agriculture by and large, even with the Government's involvement on

the production side, is still largely a private sector operation. But we can play an important role by, one, raising awareness of the problem, as you just talked about, so that farmers, ranchers, food processors, and distributors can take steps to ensure that their computers are Y2K OK, as we would say.

I passed out—I only have one of these things, but this is a document called "The Year 2000 Program Toolkit" that is put out by the Extension Network. As you know, this is the largest methodology in the United States by the Government to try to give information to people. And this is a document largely that we use through the land grand colleges and our extension offices to help small businesses, agriculturalists, and others deal with the problem, become aware of it, figure out what they have to do to fix their computers or upgrade them. And so this whole idea of educating people I think is a major role we have, and very few agencies of Government are positioned like USDA in terms of letting people know what is out there.

We also have to assess the state of readiness of the food sector so that industry can know whether they are lagging behind and so consumers can have reliable information and confidence in the safety of our food supply.

Finally, we have got to conduct prudent emergency contingency planning to address any problems that might occur. Because no matter what you do, there will be some glitches, and you have got to have some contingency planning out there. I don't think that they are going to be widespread, but there will be some, probably.

The Food Supply Working Group is committed to ensuring that everyone involved in food supply production and distribution understands and is aware of the potential problems, understands the importance of acting now, and knows where they can go for help. Our goal is to do whatever we can to prevent disruption in the food supply chain.

I am pleased to report that based on the information we have collected to date, the Food Supply Working Group does not believe the Y2K problem will cause widespread or severe disruptions in the food supply in this country. It is most likely that any effects from the Y2K problem will be minor and localized by region or particular food product, and we can talk about some of this in the question and answer period.

The state of readiness within the food industry is encouraging and is getting better. I am not sure 2 years ago I would have been quite as encouraged, but really, people are focused on this, particularly in the food industry.

The Food Supply Working Group's initial analysis suggests the American public can be confident that the major domestic companies, which provide most of the key foods, will continue to operate irrespective of the Y2K problem. An interruption in the food supply so severe as to threaten the well-being and basic comfort of the American public is highly unlikely.

Assessing the Y2K state of readiness of the Nation's food sector is a daunting task. We have many USDA agencies involved to conduct our initial assessment. In addition, as was referred to by Senator Lugar, we hired the Gartner Group, a worldwide business and information technology advisory company noted for its expertise in

the Y2K problem. Our assessment is not complete. It will be updated quarterly throughout the year. It shows that there is still much work to be done, but it also shows that, by and large, our Nation's food supply will remain reliable.

Let's first talk about farmers and ranchers, the production agriculture side. Our survey results show that production agriculture is, by and large, in good shape. Other studies show that suppliers of farm input, such as seeds and fertilizer, appear to be well prepared as well. While nearly a third of those farmers surveyed used computers for record keeping, only a fraction of all farmers, less than 3 percent, rely on automated systems in the production process. Those that do are aware of the Y2K threat and are taking steps to address the problem. This is an issue that particularly affects the dairy industry, and it is something that we may want to talk about a little bit afterwards.

I know that there is a lot of fear and uncertainty out there. However, I want to make it clear there is no reason to anticipate any decline in the productivity of American agriculture, at least not due to Y2K problems that may occur on the ranch or the farm.

After harvest, farm products enter a much more mechanized world of processing and distribution, so our assessment also covers food processors and distributors. Our initial focus has been on industry leaders who collectively control over 50 percent of the market of 19 key food groups, including milk, meat, bread products, fruits and vegetables, and infant food, as well as major wholesalers and retailers. The study concluded that these companies are making satisfactory preparations and should be well prepared to sustain operations despite any interruptions caused by the century date change. And while few of these companies will be immune from any interruptions, it is unlikely that these interruptions will be much more than minor that will be resolved within a few days' time.

We are also focusing on two other critical links in the food supply chain: utilities and transportation.

Some of the utility issue is beyond our scope. The electric grid problems are much greater and affect the entire country. But in February 1998, the Rural Utility Service within USDA, which basically manages the entire rural electrification system, started surveying its telecommunications and electric borrowers to determine their preparedness. As of January 6, 1999, the Rural Utility Service received responses from over 50 percent of their total borrowers, and most indicated full compliance or specific plans for full compliance by January 1, 2000.

We are following up with those companies that are not as far along, and USDA is working with the Department of Energy to ensure that rural America does not lose power on January 1.

Transportation is a major link. And I agree with what Senator Stevens says. Given the globalization of agriculture, given the massive movement of foods between and among nations of the world, it is critical that the transportation sectors, particularly the shipping sector, be actively addressing the Y2K problem.

As is apparently the case with most industries, the study found that smaller companies, such as independent truck owners, freight forwarders, and short-line railroads, are further behind in address-

ing the Y2K problem. The larger firms are obviously further ahead of the smaller firms. However, these smaller firms, too, appear to be taking necessary steps to stay in business come January 1. I do not believe the Gartner Group spent a lot of time dealing with international shipping issues because, again, a lot of these are beyond just traditional agricultural issues. But I want to reiterate what Senator Stevens says. The movement of food in this world is increasingly globalized, and if the shipping industry is not up to speed, then we will suffer. And I think that his idea of providing additional focus on that is a useful one.

Y2K preparations overseas generally lag those in the United States. As the world's leading food exporter and importer, this is important to us because it could mean a disruption in the U.S. food imports and exports. Some of this, again, is shipping-related. Some of it, again, is technology-related, particularly with less developed countries.

The Foreign Agriculture Service, under the leadership of Mr. Schumacher, reports that key foreign markets for U.S. food products will likely have a relatively low risk of Y2K disruptions due to their import, processing, distribution, and retail chains because they are not automated to the same degree as we are. Potential problems, as I said, in the shipping industry are our greatest concern.

There is some risk of short-term Y2K-related disruptions to U.S. imports of food, especially perishable commodities. However, should there be a disruption of imports, domestically grown fresh fruits and vegetables will continue to be available, although with less variety and possibly at somewhat higher prices than usual. Much of that is not as greatly shipping-related because much of that is hemispheric and the goods can move through other forms. But I thought it was important to at least mention this particular problem.

I also want to mention briefly the state of affairs with respect to the food assistance program—food stamps, WIC, commodity programs—which are vital to the availability of food for millions of Americans. Over 20 million people are on food stamps.

USDA's Food and Nutrition Service has been working to remediate the critical systems that support these nutrition programs and expects to be fully compliant by the governmentwide deadline of March 31, 1999. We are tracking and reporting Y2K progress from our State partners for the Food Stamp Program and the WIC Program. As you know, those programs are largely managed by the States. Not every State is ready yet, but the reports so far as promising. More and more food stamps are being done through computer cards, the EBT card, and so it is important that those systems be ready.

In conclusion, as I said earlier, any effects from the Y2K problem I believe will be minor and localized by region or particular food product. In the unlikely event that there are food shortages in any area, USDA has standing plans to address intermittent food disruptions which occur during any emergency. We are working with FEMA and the Emergency Services Working Group of the President's Council on Y2K Conversion to adapt our plans for any Y2K-related contingencies.

Mr. Chairman, I would like to conclude my testimony on this reassuring note: Our farmers and ranchers are the most productive in the world. Our food supply is safe, affordable, and reliable. I am thinking about the peas that Senator Smith talked about.

Senator SMITH. Oh, my.

Secretary GLICKMAN. Yes, 20 cents a pound 45 years ago, 20 cents a pound today. And you know what? When you look at other agricultural commodities, it is the same. It is extraordinary. When you consider everything else in the world that has gone up so dramatically in price, food is the greatest bargain in the world. And now I will get off that horse for a moment and just say that I am confident that our food supply will remain safe, affordable, and reliable, but still, even with the encouragement, there is still a tremendous amount to be done by the food industry in general, by agribusiness, and by USDA.

As I said before, there will be some glitches, but as long as we are vigilant and continue to monitor this, especially as Mr. Koskinen is pushing us every moment, I am confident that the food supply will work well. Confidence is the key. As long as people have confidence that we are doing our best, the systems will work, the problems, if any, will be minor, then I think we will be OK.

There are some fear mongers out there, and it is being encouraged. I even saw it on television this last weekend by a lot of folks who are scaring people as to the nature of these problems. And I can report to you that, with respect to at least the food supply, I think things are working very well.

Thank you, Mr. Chairman.

Chairman BENNETT. Thank you very much, Mr. Secretary. We appreciate it, and again, as I said in my introduction, we appreciate your leadership on all of this.

At the risk of becoming one of those sources of scaring people—and I guess I have done that in the past inadvertently—there is one area about which I continue to be concerned, not only in agriculture but across the whole nature of this problem. That is the source of the information on which we rely.

Now, let me give you an example. The Gartner Group has assessed 100 major businesses, and they have taken the four biggest producers in 25 different sectors, which is the right kind of sampling, I think, to do. This is their methodology to reach their encouraging conclusion.

We all live in a world of public opinion polls. Every politician up here has gotten here by virtue of a pollster, or at least the pollster tells him that that is how he got here.

So you focus on the sample and whether or not this is a statistically significant sample or a random sample that is reflective of the entire universe that it is trying to project and so on.

Now, Gartner developed this information, according to our staff interviews, by looking at SEC disclosures, shareholder notifications, and press articles for 85 of those 100 companies. In other words, the information on which they based their sample from which they extrapolated an opinion for the entire industry is 85 percent self-reported.

I do not mean to suggest that self-reported information is automatically wrong, because it is not. In many, many instances, self-

reported information is reliable. But we found in this committee that self-reported information that does not get checked on tends to be overly optimistic in almost every circumstance.

We use the General Accounting Office [GAO] as our auditor, our outside auditor, if you will, to go into an agency that is reporting things are just fine. GAO invariably comes back and says, well, the self-reported information is a little bit rosy. The most dramatic example of that was in the Department of Defense where the Defense Department self-reported figures looked much, much better than the GAO figures when they got through with their audit.

That is, of course, the idea behind the President's very wise decision to appoint Mr. Koskinen and to have him in your face monthly asking you these kinds of questions so that we hear from Mr. Koskinen and not just from you. It does not mean that we do not trust you, but it means that there with an outside auditor there is a degree of accountability.

So as we look at the Gartner Group—which, again, I salute as one of the premier organizations that has helped us as a nation in getting ready for Y2K. As we look at their methodology, 85 percent of the information that they give us that leads us to the encouraging report comes from sources that have not had an outside audit.

I simply lay this out and ask you to respond. Do you have any concerns about it? Does USDA have any independent ways of dealing with some of this information? What is your reaction to the circumstance that I have just outlined?

Secretary GLICKMAN. I recall when President Reagan was dealing with the Russians back in the days of the cold war with respect to counting nuclear weapons, and he paraphrased in English a Russian phrase which was, "Trust, but verify." And I think that is applicable here.

Let me make a couple of comments. No. 1, I think that the idea of having these report cards by Congress and the GAO and even OMB on our performance have been healthy. We hand them out, and I can then say to certain of our mission areas, you flunked or you are months behind, because otherwise, the natural order of things is to put the best light, the best face forward.

Now, saying that, I would have to say that you do have to get the basic data from the people who are working on the particular problem. But one of the reasons why they want us to have these mission-critical systems done by March 31 of this year is so we can have an extensive enough period of time to validate them, to test them.

We will have most of them done. We were just talking whether we will have all of them done by that date. And Anne Reed, our Chief Information Officer, says we are going to try, and she says, "I don't think I can say to Senator Bennett today that 100 percent we can absolutely guarantee are going to be done." But the fact is that we have outside groups watching us and grading us, I think actually puts the Government a little bit ahead of maybe some people in the private sector who don't have that.

Chairman BENNETT. I agree with that. Let me just make a comment. Some people in the press have said to me, well, why doesn't your committee issue a report card? And I have said, No. 1, I don't want to get into the business of having the press say, well, the

House gives them a B-minus and the Senate gives them a C-plus and we'll justify the discrepancy, because that ends up in activity that is not very productive. We probably would be issuing a report card if Congressman Horn were not; and if Mr. Koskinen did not have his first-tier, second-tier, third-tier reporting relationship, we would probably do that. But other people are doing it. They are people whom we trust, and we see no reason to duplicate that.

Second, we are trying in this committee to look across organizational lines, and we have had that conversation here. We are trying to look horizontally. The report card, by necessity, looks vertically at one organization after another. So we are trying to be a complementary rather than a duplicative effort to that.

With respect to your being ready on time, I accept your assessment of where you are, and I hope you can come up and surprise us all with being 100 percent.

Secretary GLICKMAN. Perhaps Anne Reed, our Chief Information Officer, just may want to comment on that.

Ms. REED. As you might imagine, we have been tracking this very, very closely. The reports for this past month's activity are coming into my office now.

My sense is that most of the incomplete systems are incomplete because we want to do more testing to give reassurance so that when the executive sponsor for that agency or mission area certifies to me that it is, in fact, compliant, they are doing so with a reasonable degree of assurance. So in those cases, it does not particularly concern me that they have chosen to take a little bit of extra time before issuing that certification.

There are a couple of instances where our ability to become compliant was reliant upon the supplemental funding resources which we did just recently acquire. That money is at work. The people are working feverishly, very, very hard, to make the deadlines. So I am reasonably optimistic of where we will be by March 31, but not yet prepared to say with 100 percent assurance.

I think it is also worth noting that we will continue to test. There is end-to-end testing that needs to be done, that will go on beyond that March 31 date. We know that we are in the process of deploying a large number of personal computers where, again, part of the resources to do that came from that first supplemental. And that deployment process, because of its nationwide nature, is going to take us past March 31. So while large numbers—most of our systems will be certified by that time, there is still going to be a substantial amount of activity that will take place throughout the rest of the year.

Chairman BENNETT. Oh, of course. We understand that, and that is why, as I said earlier, the March 31 date is so important so that you have time to do all those things.

One other comment. I am assuming that your conversation about the percentage that will be ready, and you are going to get them all done as quickly as possible after March 31 and so on, is still focused in the mission-critical band.

Ms. REED. Yes, sir, though many organizations—most organizations are also working just across the board, understanding how interrelated many of these things are. But the focus of my office and oversight and management is really on those mission-critical

to make sure that that is where we will—that the appropriate resources are applied to those first.

Chairman BENNETT. As, indeed, it should be, but let me give you this anecdote that demonstrates that mission-critical sometimes can be deceiving.

In one of my other assignments in the Senate, I am Chairman of the legislative branch Subcommittee of the Appropriations Committee, and it occurred to me it would be very embarrassing if the entire nation worked on January 1, 2000, and the Senate did not.

Vice Chairman DODD. The country might like that.

Chairman BENNETT. The country might like that just fine. [Laughter.]

So I got a hold of the Sergeant at Arms here at the Senate who is in charge of the computers. By virtue of that other chairmanship, he has to come to me for his money, therefore I am in a position to get his attention. And I said I want to know where we are with respect to Y2K in the U.S. Senate. The answer was not encouraging. As a matter of fact, the answer was really kind of frightening.

So we had exactly the same process, an identification of mission-critical systems, and at the next hearing I held, the Sergeant at Arms assured me that all the mission-critical systems were going to be all right. Then I said to him, Give me an example of a non-mission-critical system in the U.S. Senate. And he said, Well, the copier in your office we don't think is mission-critical.

A Senator who is up for re-election seeking to send out multiple copies of press releases will consider the copier the most mission-critical system in his office, and yet the Sergeant at Arms decided that that was not mission-critical.

I don't want to dilute in any way your focus because I think your focus is exactly where it should be. But when the time comes that you heave a sigh of relief that Congressman Horn has now given you a B-minus or an A on your mission-critical systems and you say we have got all summer now to do our end-to-end testing, remember the copier that the Secretary will absolutely have to have that you have put in the non-mission-critical system category and realize that your problems are not over.

Ms. REED. I think that is absolutely an excellent point, and I use similar examples myself when talking to people to make it clear that the person who makes the determination of what is mission-critical has to understand what the mission is. The mission is not about the system being compliant. It is about your ability to deliver service and to conduct a business. In fact, we have instituted a—our contingency planning and continuity-of-business planning process is geared in exactly that way so that the program administrators are thinking through all of the things that have to work in order for them to deliver the service and program, not just as early on we were looking at specific information systems. So your point is absolutely well taken.

Secretary GLICKMAN. If I just may add—you talked about, of course, the Senate. One of the things we do, and not very well publicized, is that the Department of Agriculture is basically the managing agent for the Thrift Savings Plan of the United States of America. So, you know, I was in it when I was over there, and I am in it when I am over here. And I don't know how many Federal

people rely on that system. We are also the payroll agent for a big chunk of all civilian Federal employees, the Department of Agriculture. We run something called the National Finance Center in New Orleans. Many people——

Chairman BENNETT. How did that happen?

Secretary GLICKMAN [continuing]. Will say to me, "I get my check from you." And I have said, "Well, you ought to act like it." [Laughter.]

And, in fact, this system has been a big part of the entire Y2K problem within USDA because it relates to, you know, all the employment, the Forest Service issues, the food safety issues. They are all kind of related there, and it has made our job even more complicated than just focusing only, let's say, on the production agriculture side of the picture.

Chairman BENNETT. Senator Smith.

Senator SMITH. Thank you, Mr. Chairman.

Mr. Secretary, I have always believed that one of the evidences of the miracle of the United States is to walk into a grocery store, and few things give me more satisfaction than to go into a grocery story, say, in Bethesda and look at a bag of peas and find the code, and it came from my plant in the Blue Mountains of eastern Oregon. And even more satisfying was a few years ago going to a Sabu store in Osaka, Japan, and finding a bag of peas that were produced in eastern Oregon.

That brings me to a comment I would like to make. I think there are few agricultural products right now in this country that aren't in oversupply right now. And yet much of that, if it is to be eaten as opposed to stored, goes overseas. And I wonder if much of your focus perhaps should not be on making sure that other countries are also stepping up to the plate. Because if they can't operate, there is going to be a lot of every commodity backing up in this country, to the great lament of rural Oregon. I don't know what your focus is on overseas. I think we are getting it together here, but I really do worry about what Sabu stores will still be pushing peas.

Secretary GLICKMAN. Well, perhaps either Mr. Schumacher or Mr. Dunn may want to comment on that particular issue.

Mr. SCHUMACHER. Senator, thank you. I visited the area in Oregon, and it is a really vibrant area in exports. So I think one of the things is to keep those exports moving.

I think on our assessment, we are going to be releasing later on an assessment of the year 2000 on the international food industry that gives us an interim assessment of where we are. I think our largest export markets—Canada, Japan—are in reasonably good shape. I think we have—we are cautiously optimistic overall in terms of our major trading partners in Europe, the UK, Japan.

On Mexico, they are beginning to come into compliance. That is a big source of our winter vegetable imports in Latin America. They have a little more work to do. Of course, we have wonderful things coming in. As the Secretary said, if there are some glitches there, Florida and California and others will be able to in that process make those adjustments.

So I think one of our major concerns, of course, is on the export side, and that seems to be moving along by and large OK except

for those countries, for example, in Russia that either are—in the newest modern systems we are going to want to be very careful in terms of our food aid. So we are concerned there. We are going to work really hard on the food aid situation. By and large, our major trading partners and our major ports are in reasonable shape. Smaller importing countries that send stuff to us, especially in fruits and vegetables, we are monitoring that very carefully.

Mr. DUNN. Senator, I think a good part of being able to do that exporting is ensuring that we have the transportation system in place that gets it there. Secretary Glickman asked us last year to put together a long-term agricultural transportation strategy to look at the overall transportation system. The Secretary is fond of saying if we can't move it, we can't sell it. And we held a transportation summit last July in which we began broaching the subject of Y2K with a whole myriad of spectrum of transportation systems.

What we find is there are two major areas in transportation. One is containerized transportation, which is all the perishable goods, getting those peas to the right place at the right time in the right condition. The second is the bulk commodity, which is the heavy grains and those things.

Because of the juxtapositioning of the harvest season, what we find on the bulk side, what may be at risk would be some soybean exports at that time, and also getting by rail some of the wheat out.

What we have greater concerns about are those containerized shipping and what happens there, because that has a very, very high magnitude and a very, very high vulnerability in there.

The containerized shipping is just growing in leaps and bounds as far as technology, and today the buzz word is to have controlled atmosphere in there. This is very, very reliant on high technology to do it. The good news in that is much of that technology is recent development, so it is Y2K compliant.

What we have greater concerns about are some of the other containerized shipments and getting those out in time. Most of the transportation in the United States now relies on truck, and that trucking system is very, very diffuse across the Nation. We go from everything from very large trucking firms that are very much on top of their Y2K problems, logistics in moving things, those that are store-owned, to those individual private companies that distribute, and we don't have enough information on that. That is one of the weakness areas that we have of getting that information on the small trucking. The good news is they are very diversified. There are a lot of them, so somebody may be able to step up if there is a problem.

For export shipping, the Coast Guard is working very, very closely to ensure that ships, vessels that come into the United States, if they are not Y2K compliant, they are not going to be here at the beginning of the millennium.

We had a lot of problems in that area, but I think there is a lot of focus going on in that direction at this time.

Ms. WOTEKI. Senator, if I might interject here as well?

Chairman BENNETT. Yes.

Ms. WOTEKI. Senator Bennett's opening question also got to the issue of how reliable is this information. Are we relying on only one

source or are we relying on multiple sources for the information that we are providing to you? And I think on these issues that your question just got to, they are really good examples of the fact that the assessment that we have gotten from the Gartner Group and the independent assessments the Foreign Agriculture Service has done of our import and exporting partners and that the Agriculture Marketing Service has done of transportation issues are all leading us to the same conclusion about where we can be secure about the situation and where we need to continue to focus our activities over the coming weeks and months.

In addition, we have gotten information from trade associations representing the large processing organizations as well as retailers that are also part of this, another independent source of information that is providing a similar type of assessment.

So I would like you all to know that there are multiple sources of information that are essentially providing the basis for the testimony that the Secretary has provided today.

Senator SMITH. Just one more comment?

Chairman BENNETT. Surely.

Senator SMITH. I would like to make a statement that you can respond to, Mr. Secretary, and I make it by way of comfort to anyone in this country who may be listening to this.

I always, as a food producer, viewed USDA standards or requirements as a floor. They were the basics. I never tried to pack to USDA standards. I tried to pack to Campbell's Soup, Cisco, or Safeway standards, which are much higher.

I think it should be a comfort to everyone out there that this is a very self-regulating industry because I don't know of many industries more price-sensitive with slimmer margins, with a hypersensitivity to anything that would disrupt it, because the motive of a food producer isn't to sell you once, it is to sell you every day. And so if it is going to be a Y2K problem, if it going to be transportation, electricity, or whatever, they are looking to satisfy some of the toughest buyers with the toughest standards in the world.

So what I want the public to know is that you represent the threshold. You do catch some bad actors occasionally, but I would like to know your feeling. I think it is the exception, not the rule, where you run into problems or find resistance to the food industry doing everything it can to stay in business because they want to produce affordable, nutritious, and safe, ultra-safe food products.

Secretary GLICKMAN. I agree In the food safety area, for example, you know, while we do go after some bad actors, generally speaking, anybody who sells rotten food, rotten hamburger, rotten vegetables are out of business instantaneously. And they might have also caused some grief with some families that might have ingested that improperly. And so there is a very good incentive for people to want to do the right thing, not only out of the goodness of their heart but also for economic purposes as well.

The complicating thing is the globalization of the economy and the interconnectedness of agriculture, which has changed a lot in the last three or four decades, and that is why we do have to kind of be involved to watch the whole thing, not just USDA but the rest of the Government together, under the leadership of the Congress. But that is one of the reasons why underlying all this is my belief

the food industry will ensure that the problems, to the extent they exist, are minor.

Senator SMITH. Wouldn't it be a fair request on our part, then, to say whatever the impact of Y2K on food that we import, we need to be especially vigilant to make sure that safety and other qualifications are met if it is coming in here? And might we urge you to shift resources, ask for resources, whatever, perhaps even more than we are doing right now, to make sure that what is coming in is compliant in every respect and is not disrupted because of Y2K?

Secretary GLICKMAN. That is not an unfair request at all. This is our food safety guru right here. The truth of the matter is, while our food supply is very safe, the level of observation is, by nature of the resources, much greater for home-grown food than it is for outside-grown food. Not that it is not safe, but given a lot of the complicating issues of Y2K and the globalization of the world, I frankly think she deserves more resources to keep that confidence up. Because if something outside is not safe, it is going to affect domestically produced food as well.

Senator SMITH. Well, I hope you will lean on the Congress to make sure that what we are importing meets USDA standards.

Chairman BENNETT. Thank you.

Senator Dodd.

Vice Chairman DODD. Thank you very much, Mr. Chairman.

Let me begin by thanking you, Mr. Secretary, and your staff. It comes as no surprise to those of us who have known you for many years that you are doing a fine job here and your team is as well, and I have a high degree of confidence that USDA will do everything possible to see to it that our food supplies are going to be safe and they are going to reach people in a sound condition.

I wanted to pick up on Senator Smith's point. In fact, I have it in my notes to ask that question. We have heard from the FAA about how we are sending people—I think it is six different countries where there is the maximum travel, business and tourism, to make sure that airports are going to operate safely in these high-density areas where there is a great deal of U.S. traffic. I was looking over the information from the Foreign Agricultural Service reports, and I apologize for my ignorance in this area.

But if you could—I don't know if you know the answer to this off the top of year head, but to what extent—of the amount of food we consume, what percentage of the food that Americans consume comes from offshore, roughly?

Secretary GLICKMAN. Gus?

Mr. SCHUMACHER. About 300—well, it is actually more in terms of value, but about $38 billion is what we are importing currently, and I think the farm gate value is about $300 billion, so double that, 600. So about $38 billion out of $600 or $700 billion.

Secretary GLICKMAN. So 5 to 6 percent, 7 percent.

Ms. WOTEKI. But it varies very much by commodity. About 60 percent of the seafood that we eat is imported, approximately 40 percent of fruits are, and a much, much smaller proportion of vegetables, I think it is about 10 or less.

Vice Chairman DODD. So fruit is about 40?

Ms. WOTEKI. Yes, and most of that is bananas.

Vice Chairman DODD. Yes. You know, that is one of the best packaging jobs in the world. [Laughter.]

God is responsible for that one. He did a tremendous job in packaging a product, I tell you.

Now, give it to me again. You said 40 percent for fruit, mostly bananas.

Ms. WOTEKI. Yes.

Vice Chairman DODD. Now, tell me the other areas you mentioned.

Ms. WOTEKI. Seafood, about 60 percent is imported, and vegetables, I believe it is somewhere between 6 and 10 percent. It is very small.

Vice Chairman DODD. Whereas, beef products would be much lower.

Secretary GLICKMAN. Very small. Poultry is very small. Grains, very small.

Vice Chairman DODD. How about packaged products in terms of coming in? What you are talking about are fresh products, pretty much, but are there products that are canned or packaged, competitors of the peas out of eastern Oregon, for instance?

Senator SMITH. Especially important.

Vice Chairman DODD. Are they imported?

Senator SMITH. Important.

Vice Chairman DODD. Important, yes. [Laughter.]

I know about important, yes. I have a new heightened degree of interest in peas.

Can you give me some sense of that?

Ms. WOTEKI. Well, I can't off the top of my head give you statistics, but certainly there are a lot of processed foods, specialty foods, that are imported. I think the important point, though, with respect to our assessment of the food supply is that, you know, the basic foods that Americans expect to be in their grocery store in mid-winter will be there: meat, poultry, bread, milk, infant foods, infant formula, baby food. Those are produced here, and those will be available.

Secretary GLICKMAN. You might want to talk about dairy for a second because dairy is perishable, fresh milk, fluid milk, and there has been a lot of discussion about that. Maybe somebody might want to——

Chairman BENNETT. The next witness is from the dairy industry, too.

Secretary GLICKMAN. Oh, OK.

Chairman BENNETT. I mean, go ahead, but understand that we do have another witness.

Secretary GLICKMAN. I am sorry. I just——

Vice Chairman DODD. That is all domestic. Right? Cheeses would not be, necessarily, but——

Secretary GLICKMAN. Some cheese.

Mr. SCHUMACHER. Very small.

Mr. DUNN. On dairy, we had a roundtable discussion to meet with the processors, the large processors, so that we could get that verification of what is going on.

Vice Chairman DODD. Yes.

Mr. DUNN. And, again, what we found is that the large dairy co-ops, the large dairy industry, private sector, they are on top of their Y2K problems.

To go back to the source, on the farm, most of the milk producers out there are going to a computerized system, but those are very easily overridden so that they can actually get the raw milk, get it to the processing plant, and, again, the distribution system really is what is getting it to the store, and it is all on a just-in-time inventory basis. But that dairy industry has done very intensive surveying and appears to be very much on top of their concerns.

Vice Chairman DODD. OK. I just want to underscore the point that Senator Smith was making. From a producer's standpoint in this country, the notion of getting paid and being disruptive in terms of our major exporting countries—Japan, Canada, Latin American countries, Mexico particularly—I think that would be—that could be disruptive if that product is sitting there and can't move. I am looking at the Foreign Agricultural Service assessments, for instance, of Japan which only has them in the awareness phase in Japan. You are dealing with consumer-ready food products, about $1.2 billion. They are only in the assessment phase.

So here is Japan, a nation that I would have thought certainly would be almost at parity with us, given the technology and so forth, and it is very far behind. And if they are, I can see our exporters having a real problem, thus creating problems here.

Secretary GLICKMAN. I think that is a very good point. Japan is a risk, and I don't know, Gus, whether you can comment on what we might be doing to help them.

Vice Chairman DODD. Let me just finish the point with you here because I think that is a side we need to get a good reading on. And then, legitimately, those countries that export to us, as you mentioned here, processed foods and others, some assessment so that we can be of assistance as we are with the FAA. It seems to me where those major suppliers are coming here, maybe to provide some assistance to those countries to see to it that the products—and, again, I don't want to dwell on it, but I think it is an important issue.

Do you want to comment on this?

Mr. SCHUMACHER. I think you put it—the key one in Japan is they have thousands and thousands of these small, small shops, and they have been trying to modernize those. We have looked at that. We have done studies, in all, in about 80 countries.

The distribution internally in Japan, Senator Smith, that may be a problem that they are not quite as up to speed on that one as well, and we are looking at that very hard in terms of onward. Our major exports to the ports will probably be fine, but it is when we have these smaller commodities, you know, especially from the west coast of the United States, the fruits and vegetables, as they get inside Japan and move into the system of all these very small shops, they are not, I think, as ready as some of the people would like to see them in Japan.

Vice Chairman DODD. I would underscore again—I don't want to bog you down in this, but this is a time when we ought to know this. We are going to have some requests. We have already got one

based on the problems of potential nuclear issues in Russia. They are asking us, a $3 billion request coming over the transom here. This would be the time, Dan, to sort of let us know on this so that we can go to bat for you up here if it is necessary. I will end that point her.

The last one I want to make, because we have another panel to go to here, but I want to jump to this question of the Food Supply Working Group. I gather you are the person here I ought to——

Ms. WOTEKI. Well, actually, I——

Vice Chairman DODD. Is it Woteki?

Ms. WOTEKI. Woteki. It is Polish.

Vice Chairman DODD. Sorry.

Ms. WOTEKI. But I actually co-chair the working group with Mr. Schumacher and Mr. Dunn.

Vice Chairman DODD. Well, I just was alarmed. We had a problem earlier when we had some companies—on the issue of supplies, medical supplies and so forth—that weren't exactly forthcoming to Government agency requests as to where they were on the Y2K issue. And I was told, according to some staff interviews, that you mailed surveys in late 1988 to some 500 trade associations associated with the food industry in an effort to gather assessment data on their Y2K problem, and that as of January you had received three responses from 500 of these trade associations.

Now, again, I don't want to start all over with this again. We have published names and so forth in the past, but this is not helpful. I gather maybe some here in the audience, this is disturbing to me. This is not information that is in the public domain. It is going to you or going to your working group. But it seems to me this is a very important issue to people.

You know, this is the kind of story we are going to get no credit if this thing works and everyone does their job. This is going to be a story where—in fact, the only stories will be you guys were crying wolf. If it doesn't go right, people are going to be pointing to a lot of us as to why we didn't do more.

I would just ask briefly here if you could give us some assessment as of February now, have you had a better response from these trade associations? And if not, how can we help you other than say today that I am going to ask pretty quickly, in another week or so, for the names of the ones that haven't been forthcoming in this area?

Ms. WOTEKI. Well, Senator, I think you are helping us already by holding this hearing and by raising the visibility of this issue.

I think you used the term "reticence" on the part of the industry, and I think that was the case through the end of last year. We through the working group have been conducting a series of roundtable discussions with the trade associations, and as Mr. Dunn referred to, the dairy associations were very forthcoming with information in follow-up to that.

These roundtables are really focusing on what we have identified as being the most vulnerable commodities, those that are fresh and perishable, and they could be more vulnerable to the Y2K problem.

I just held a similar roundtable with the meat and poultry industry a week ago. At this point, their awareness is heightened. I think that we are going to get a much more positive response.

Vice Chairman DODD. How many more have you heard from? You had three as of January.

Ms. WOTEKI. I cannot give you an exact number, but I don't think it is many more than that.

Vice Chairman DODD. So we are still——

Ms. WOTEKI. But some of the trade associations are very actively now going out to their membership, and I do understand as well that some of the larger associations representing both processors and retailers have been very actively now polling their membership and providing assessments.

Vice Chairman DODD. You are being kinder than I would be at this juncture, but if it is around three still and it is February, and you are going to make an assessment to us in March, about a month away, there is really an awful lot of work to do in the next few days.

Secretary GLICKMAN. I think that what we need to do in the next week is to reaffirm our interest in getting this information back and letting them know of your concerns here. We will keep you up to date.

Vice Chairman DODD. All right.

Chairman BENNETT. We thank you very much. We held you a little longer than we anticipated, but I think we got good information. We are very grateful to you. We will ask questions in writing and would appreciate your responses to that.

[The questions and responses can be found in the appendix.]

Secretary GLICKMAN. Thank you very much.

Chairman BENNETT. Thank you again, Mr. Secretary, and the excellent team you brought with you.

[The prepared statement of Secretary Glickman can be found in the appendix.]

Chairman BENNETT. Our next panel is the representative of the preprocessor industry, and we have with us Mr. Tyrone Thayer, who is the corporate vice president and president of Cargill Foods, Cargill, Incorporated. Cargill is not necessarily a household name, but it is a well-known name in American food preprocessing and, Mr. Thayer, we are very grateful to you, appreciate your patience, and look forward to hearing what you have to say.

STATEMENT OF TYRONE K. THAYER, CORPORATE VICE PRESIDENT, CARGILL, INCORPORATED

Mr. THAYER. Thank you very much. Mr. Chairman and members of the committee, good morning. As was stated, my name is Tyrone Thayer, and I am corporate vice president of Cargill, Incorporated, and the worldwide manager of Cargill Foods. With me today I have Mr. Gary McGee, who is Cargill's worldwide Year 2000 Project office manager.

We want to thank you for inviting us to appear before you. The work of this committee is doing very important things to smooth the transition for the United States into the next millennium.

To begin with, I will give you a brief description of Cargill. I then will describe the structure we are using to address the year 2000 technology problem, give you a brief description of our activities and the status of our efforts. I would also like to suggest some particular areas of focus for the committee.

As some of you know, Cargill is an international marketer, processor, and distributor of agricultural and food products. Our headquarters are in Minneapolis, Minnesota, but we employ approximately 80,000 people in plants and facilities in 65 countries and have business activities in 130 more countries. We at Cargill process more than 200 food products and food ingredients. We obtain these raw materials for these products from farm and livestock producers who are also our suppliers and our customers. We transport our products through the use of ocean freight, inland barge, rail, and truck transportation services.

We at Cargill expend more than $385 million annually in information technology services, and this excludes voice communications. Every year we spend between $80 and $100 million in capital investments in information technology. We have 27,000 connected desktops with complex business application, infrastructure, and corporate systems.

In our Cargill plants, computers are used to control the temperature of our products as they are being processed, to analyze product samples, and to open and close valves as products flow from one process to another. These systems are also found in our scales and in time clocks—equipment that every food processor uses in day-to-day operations.

Our business systems, of course, are also affected. Throughout Cargill, we monitor our inventories and manage our day-to-day business transactions such as those with the Chicago Board of Trade. Invoicing and payroll systems already have been updated so that customers get billed in a timely manner and our suppliers get paid.

We believe the biggest impact of the Y2K situation lies in the potential disruption of the supply chain, most of which is external and out of Cargill's or any other company's direct control. Our primary concern is in four areas: utilities, transportation, telecommunications, and financial.

If these areas do not function, then neither can we. And neither can the rest of American business, especially the American food industry. The loss of basic utilities—electricity, water, sewer, or natural gas—would cause our plants to shut down.

Our approach to Y2K began in June 1996 with an assessment of all of our business systems. Cargill's goal is to implement reasonable procedures in order to eliminate as much risk as reasonably possible to Cargill, our customers, and our suppliers.

The Cargill Project Office provides overall direction and consistency in our approach, suggests policy, and submits regular progress reports to senior management. We have two corporate executives who were appointed as sponsors to oversee our entire project. They provide quarterly updates to the Cargill Board of Directors.

When evaluating our plant and business systems, we focused on systems and equipment with embedded computer chips or software that could cause either a slowdown, a shutdown, a safety problems, or an environmental problem. We also are focusing on business and plant systems and infrastructure. We are working with our customers and key suppliers, and we are doing contingency planning. Finally, we are hiring external auditors to conduct random checks of our business and our plant systems.

Cargill's Y2K international operations are organized very much like our domestic organization. Each operating division has a plan of action with a predetermined timetable.

In the United States, 65 percent of our key plans and 70 percent of our business systems have already been updated. We plan to finish our remaining projects and complete our contingency planning. We will have people at our key plants and administrative offices on December 31, 1999, to ensure a smooth transition. We are confident that our worldwide business and plant systems will be in good working order by the year 2000.

However, as has been mentioned earlier today also, we may expect imports or exports in various locations to be affected in some way. Consequently, we are putting together a contingency plan that includes investigating transportation alternatives if railroads or trucking companies are unable to deliver or ship our products. Consideration is also being given to finding back-up suppliers of energy and products we use in the day-to-day operations of our business that we consider strategic.

I trust that I have provided you with some insight as to how one major food supplier, Cargill, is handling the Y2K situation, and I am confident that Cargill will be ready to meet the challenges that lie ahead.

Again, if I may, I want to compliment your work in addressing the Y2K issue. We believe the American public can best be served if the committee directs its attention to the four areas I mentioned previously: utilities, transportation, telecommunications, and finance.

Thank you. I look forward to questions.

Chairman BENNETT. Thank you very much. Your priority list is the same as this committee's. Our first hearing was on the power grid as we tried to make sure that power was there. We have talked about transportation, telecommunications, and finance. We will continue to monitor that because we agree with you absolutely that if those things fail, nothing else will work.

Your testimony is useful and it is encouraging. It demonstrates a pattern that we have had in these hearings before, which is that the largest organizations, the industry leaders, are stepping out and doing what needs to be done, giving us reassuring information. The concern we have is that smaller organizations who are in the preprocessing phase of food, who may not have risen to the level that you have, may not have the resources that you have put into this problem, and, therefore, something can happen from a less significant player but nonetheless a key player somewhere in the overall scheme of things.

One of the issues that we addressed in our opening statements, and briefly with the USDA witnesses, that I think you could comment on very usefully has to do with the impact of stockpiling and the disruptions that could occur as a result of stockpiling.

People ask me, What are you going to do? And I tell them bluntly, I am going to have some extra food on hand, not because I think there is going to be a nationwide problem. But we have seen here in the Washington area when we have been here in an ice storm that the 72-hour figure that Senator Smith referred to is probably pretty correct. And when they are giving you warnings don't drive,

or a few years ago a major snowstorm where trucks wouldn't move, the food disappears off the shelves of the supermarket really very rapidly. It wasn't a Y2K glitch, but it was a serious disruption.

Just as an aside, one of the indications of the way we live as Americans, Blockbuster Video recorded a tremendous run, and people would come in and rent four and five videos and bring them all back the next day and rent four or five more because they couldn't move around.

So I think a modest preparation for any kind of disruption is probably a prudent thing to do. But when I say that, people panic and say, well, then, we have to have a huge supply of food for a major disruption. I think if a large proportion of the population were to do that, it would create serious planning problems for you.

Now, am I right or wrong, and have you given any thought to what might happen if there was such a demand?

Mr. THAYER. If I may, I think you made a very good correlation of taking the ice storm. And if the committee can do things to address information, raise awareness, get consumer confidence that the need for overstockpiling is not prudent and how it would just disrupt not only before but potentially the marketplace after, because it takes time to put the things back into effect.

The reason I mentioned the ice storm is because if you look at a disruption that would be similar to the 72 hours of the ice storm and what is prudent in that type of thing rather than pushing the panic button, then it could make, as what you suggested, maybe prudent sense. But to have overstockpiles at every chain in the food process does not make sense.

Chairman BENNETT. What kind of an impact would it have on your company if, say, next September there was a sudden surge?

Mr. THAYER. Well, I think in our particular case, where we are the supplier of raw materials and ingredients to many of the food processors and food distributors and retailers and bakers, our planning with our customers goes on and we are doing so many things with them today.

We are working with our customers and our suppliers of looking at the key strategic processes that may be a problem. And so instead of looking at the total processes, as I say, repeating myself, looking at the strategic ones so we can center in on where those are and eliminate them, so we together with our customers and our suppliers face that far before the time of what you are mentioning.

Chairman BENNETT. You have quite an overseas presence, and you have heard the conversation here today about overseas. My own sense of the Y2K problem is that it will hit with greater impact outside our borders than it will inside.

Have you made an assessment as to what the overseas Y2K difficulties will do to your company and taken steps to deal with that?

Mr. THAYER. Well, we, of course, have concern as to what the U.S. Department of Agriculture and the Secretary of Agriculture mentioned. In our plants that we have overseas, again, we have the same processes that we have here. Approximately 80 percent of our overseas plants are ready today. As we look at the exports and imports that we are involved in, we again stress the real concerns of the transportation and like that. So we rely on some of the information that we can get in working with the various customers

abroad, directly from Cargill, but we rely on a great deal of information that we can get from, again, the Secretary or the USDA and the Gartner Group and others.

So the sources of the information and the accuracy of that information, as you mentioned earlier, is very important, and the more that that can be shared across the public and private sectors, the better off we are all going to be.

Chairman BENNETT. You talk about infrastructure problems, the four areas: utilities, transportation, telecommunications, and finance. Have you made any assessment of those infrastructure problems overseas? In other words, if the telephone system breaks down in another country—I do not expect it to break down in the United States—or the banking system collapses in another country where you have a major presence, No. 1, have you done any assessment of that in those countries? And, No. 2, do you have any contingency plans in case it does, in fact, go sour?

Mr. THAYER. Let me turn to my assistant for 1 second.

[Pause.]

Mr. THAYER. I wanted to just talk with my fellow compatriot, Mr. McGee.

Chairman BENNETT. Yes.

Mr. THAYER. As I mentioned earlier, we have the same processes in our foreign countries as we are using here. We are interviewing and working with specific companies in the foreign countries, the non-U.S. locations. We also, and especially in Latin America, are now instituting ways that we can also communicate to the best of our abilities with the Government agencies that we do business with. So that is the work in progress.

Chairman BENNETT. I have said before in these hearings that I think Y2K will have a major structural impact on the world economy in that it will cause a flight to quality and people will pull out of situations that are risky for them and go in the direction of those things where they can have some stability and some assurance that things will work.

Without disclosing any corporate secrets, obviously, have you given any thought to pulling out of any particular foreign situation because of their inability to provide the infrastructure support that you have got?

Mr. THAYER. Not at this time, we have not.

Chairman BENNETT. OK. Well, it has been very reassuring to have you here, and you fill a very vital niche in this whole chain. Senator Smith grows peas, a pea-picker kind of thing, and then packs them, while you are in the preprocessing niche and the largest player in that group. I think in our effort to get accurate information out to consumers as to where we are in this whole situation, it has been very useful to have you here and have your testimony. We are grateful to you and to your corporation for making you available.

We may have some written questions for you, but we are very grateful, and thank you for your appearances here today.

Mr. THAYER. And thank you for your kind comments, and we look forward to further cooperation with you.

Chairman BENNETT. Thank you.

[The prepared statement of Mr. Thayer can be found in the appendix.]

Chairman BENNETT. We now go to our final panel, which is a group of processors, and we are going to hear from Mr. Allen Dickason, who is the Chief Information Officer of Suiza Foods. And I believe, for those who do not find Suiza Foods a national household name, you are one of the largest dairy processors in the country. Isn't that right?

Mr. DICKASON. That is correct, sir.

Chairman BENNETT. OK. Then Mr. Ken Evans, who is president of the Arizona Farm Bureau, of course, we all know about the Farm Bureau and the role that they play. So you two represent a step up, not in quality or value, of course, but in the food chain, from farm to fork, from the testimony that we have just heard. We are grateful to have you both here.

We might as well go alphabetically, Mr. Dickason, we will hear from you first.

STATEMENT OF ALLEN DICKASON, CHIEF INFORMATION OFFICER, SUIZA FOODS CORPORATION

Mr. DICKASON. Thank you. Good morning, Mr. Chairman. I am Allen Dickason. I am the chief information officer for Suiza Foods Corporation. Thank you for inviting me to appear before you today to discuss the efforts Suiza Foods has undertaken to address the year 2000 problem. I would first like to commend the committee on its efforts to investigate the potential effects of the millennium bug and to broaden the national awareness of this potentially serious problem.

As you may know, Suiza Foods is a leading processor and distributor of fresh milk and related dairy products, shelf-stable and refrigerated food and beverage products, frozen food products, coffee and plastic containers.

Chairman BENNETT. I apologize for mispronouncing the name.

Mr. DICKASON. That is fine, sir.

Suiza Foods' products are distributed throughout the United States and Puerto Rico.

As members of this committee know, the complexity of analyzing and quantifying the scope of the Y2K problem and then implementing comprehensive and proven solutions is a huge undertaking. The so-called Y2K bug may potentially affect software application programs, computer operating systems, and any other program that processes dates. At Suiza, we have concentrated our efforts on ensuring that all programs used in our nationwide operations will operate properly when we transition to the next millennium.

About a year ago, we began our efforts with the objective of ensuring that Suiza was 100 percent Y2K compliant by June 30, 1999. We established a Y2K Project Management Office, which is responsible for all internal and external Y2K activities. This office has put into place a structured approach that lays the groundwork for us to meet the Y2K challenge. That approach has five key steps which I will speak to briefly this morning.

Our first step was to make all our employees in the company aware of the Y2K problem as it relates to us and to involve each corporate division in the process. As you may know, our family is

comprised of three core divisions: the fluid dairy processing division, the Morningstar dairy foods production, and Continental and Franklin Plastics' container manufacturing. Each division has a Y2K team, including an information technology person and a manufacturing person. We hold weekly conference calls to track our progress, and monthly Y2K status and financial reports are developed. This continual monitoring has assisted us in becoming Y2K compliant.

We have also issued a number of compliance guidelines to assist our field units, and we have assembled and distributed Suiza's Y2K project manual to all field and corporate coordinators. As a result, many of our regional operators have made significant progress and have gained great knowledge that we have been able to leverage across our system.

We are also publishing a Y2K newsletter throughout Suiza that goes to all of our employees. It is designed to maintain a high level of awareness of our Y2K efforts among our employees. We have also prepared a Y2K website, which is up and running. And, by the way, that is y2k.suizafoods.com. So it is fairly easy to get to.

Our second step was conducting a company-wide assessment of our Y2K readiness, as well as a Y2K review of all our potential mergers and acquisitions. We contacted the hardware vendors directly to assure that each piece of equipment was Y2K compliant, and we are in the process of starting to test the software and embedded systems ourselves to identify any date problems.

We then established five criteria to determine business criticality of our systems and brought in two independent companies to test and double-check those systems. Both companies have been conducting random audits in all of our plants, and we will complete the necessary changes as they are discovered.

We are also visiting with our major suppliers and reviewing their Y2K programs, as well as writing to our other vendors asking if they are Y2K compliant. We have received answers from about 90 percent of those to date, although most of them are the form letter that you have seen throughout the industry.

Although our testing is in the early stages, it will cost less and take less time than originally anticipated. While the dairy industry is a very capital-intensive industry, we are fortunate that Suiza, like a number of companies, uses standard testing equipment and operational equipment like Allen Bradley controls. Moreover, because many dairy operations were formerly family-owned and operated and still are, there is relatively low turnover in our organization. Thus, we are fortunate to have a good corporate memory of what has been done in the past. This includes skills and expertise in plant managers, IT directors, all the way down to our electrical technician level.

Our final step will be implementing the necessary changes. While we will be engaged in contingency planning from June to October of this year, we are confident that all of our systems will be Y2K compliant by our June 30th deadline.

Suiza is extremely proud of its approach and the progress it has made to date on the Y2K problem. Our Y2K readiness efforts are 50 percent complete, and while the task is a challenging one, we are confident we will succeed. Our livelihood depends on the com-

plete confidence of our consumers and customers, and we want to ensure that they continue to enjoy uninterrupted quality and service in the new millennium.

The work of the committee is really critical to the overall preparedness of our Nation in dealing with the Y2K problem. Please continue to make every effort to increase the awareness of Y2K and to work with other congressional committees in their efforts to assist small- and medium-sized companies to address the problem.

Since many of our operations are located in rural areas, it is extremely important that rail transportation and smaller utility companies be Y2K compliant or be prepared to deal with any problems that exist.

Again, Mr. Chairman, I want to thank you for the opportunity to appear before you today. I will be happy to respond to any questions you have.

Thank you.

[The prepared statement of Mr. Dickason can be found in the appendix.]

Chairman BENNETT. Thank you very much. We appreciate your presence and your testimony.

I am impressed, Mr. Evans, that you are high-tech enough to have your testimony on a laptop.

STATEMENT OF KEN EVANS, PRESIDENT, ARIZONA FARM BUREAU FEDERATION, ON BEHALF OF THE AMERICAN FARM BUREAU FEDERATION

Mr. EVANS. Thank you, Mr. Chairman. I appreciate that.

I guess as I looked around the room and saw so many pictures today, I thought about those pictures and what they represent, and then as I sat here before you trying to make some adjustments to my speech so that it wasn't redundant with what has been said earlier, I had to look back and think about the years that I have worked in the industry. Over that half-century, these bruised and calloused and scarred hands have had to do a lot of different tasks. I have mended fences and fixed diesel engines, and I have actually built computers, in fact, owned a company that built computers, PC's, in the 1978 to 1983 era, have maintained a——

Chairman BENNETT. So did I, and I was very glad to get out of the business. [Laughter.]

Mr. EVANS. Yes, barely in the nick of time in 1983.

Never has a task that I have faced in my life been as challenging or potentially challenging as the one that we face today. I would say that to you as someone who has put a lot of thought and effort into this. We have heard from some very large entities here today who have talked about—like the Department of Agriculture, which has 130,000 employees, and Cargill.

I actually started in 1988 with, because of my background, an awareness of what the potential problem was, looking at and worrying about the potential millennium bug. Interestingly enough, as we went into that time period, our operation in Yuma, Arizona, was already—you mentioned earlier in your testimony a date. You might want to amend that. But we were actually using GPS systems in 1988 and had them integrated into our operation in a very extensive way by 1990. By 1994, I appeared before a House com-

mittee back here with my laptop and a cell phone and turned the laptop around and allowed those Congressmen to actually see a time-real photo of what was being viewed by a tractor operating in Yuma, Arizona, 2,500 miles away from here.

So I would suggest to you that in the production realm there are farmers who are and have integrated substantially the businesses that they are in with technology that permeates virtually everything they do.

Big Bertha is—how do I describe Big Bertha? She is a story and a half high. She belches fire and smoke, burns diesel, cranks out about 400 horsepower, can pull a 26-foot disk at over 8 miles an hour, fully down. But that is not really what is most impressive about this piece of equipment. And there is a picture of the manufacturer in the room. That will give you a hint who makes it.

Neither is the fact that it has got six computers on board, nor that it costs $280,000 for that particular tractor, the most impressive part. I think one of the most impressive parts is the fact that this particular unit has the ability to know within 6 feet where it is at anywhere on Earth at any given time. But, more importantly, knowing that, as important as that might seem, the most important part is the fact that it communicates that information with our office on a time-real basis using cellular burst mode technology.

Second, and what catches the attention of many people, this particular unit, its maintenance is entrusted to my tractor driver, Jose, who gets $8 an hour. The systems monitor themselves. And when there is a critical system failure—and you talked about critical systems earlier. When there is a critical system failure, it doesn't have a red light flash on. It calls up the local dealer and says, This is Case 003, I need my filter serviced. Or it calls up Case and says, I have got X parts per million chromium in my oil, I need to be checked. Amazing what technology has done.

Recently, we had a field day with this particular unit called a Quad-track, and the equipment dealer was there and was demonstrating to some neighbor farmers why they ought to buy one of these units as well. And so to demonstrate its ability to self-monitor and to fix its own problems, why, he put a bag, a plastic bag over the filter, and Jose drove the tractor out in the field one round, and, lo and behold, it didn't stop and it didn't call the dealer.

One thing I need to tell you. Yuma has two prefixes, 726, 627, same numbers, different order. Somebody had programmed it wrong. The dealer got up there, and we were all standing there looking over his shoulder as he plugged on two little jumper cables to listen to the phone, and the phone rang. And, lo and behold, when it rang, a woman's voice was at the other end of the phone. And the Case tractor responded by saying, This is Case, I am at 19th and 21st, I need to be serviced. And this shrill voice at the other end of the phone said, Listen, you pervert, I don't care who you are, you call wanting to be serviced again and I am going to call the sheriff. [Laughter.]

It might seem, you know, a little bit funny, but as a practical matter, we face a technology for which many of us in the farming business are ill-equipped to react. The complication of that piece of equipment is incredible.

A question was asked of me as I talked with your staff: What about new equipment? Isn't it immune from this bug? And I would say to you that if that new equipment were in its original factory condition, it probably would be.

My grandfather's generation of farmers were looked at with their straw hats and bib overalls and straw, and my dad has his pliers and his screwdriver and his baling wire, and my generation has to have their computers. It is amazing to me that we simply will not allow that piece of equipment to just continue to operate in its original form. We have to take our baling wire and our pliers and go add something to it every time it comes on the farm. And that is where our vulnerability comes.

I have a number of examples on my operation where our Y2K successful, quote-unquote, compliance monitoring triggered massive management problems. To my right is a picture of a center pivot. We did our compliance testing almost a year ago now. Interestingly enough, the crops, thank goodness, were in about that same state.

We got a clear bill of health from the consultant that came in and said our computers were compliant, our IRS forms and our Department of Labor forms and everything were up to date, were all compliant.

Two days later, my farm manager comes in and says, I can't get these three center pivots to run. We found, after an exhaustive study, that it was our Y2K testing program that had fried the IC boards on the control panels. Those are common control panels across much of America. And our replacement cost for burning up one little chip that was non-compliant in that panel was something about $3,000 per unit to replace.

So are we compliant in the ag sector? I would say even those of us that you have referred to as being on the cutting edge of technology probably can go through all of the maneuvers of determining that we are compliant, and we still will not know until that clock turns over, until we have had a response out there. And we know how many embedded chips are there.

The Secretary Secretary Glickman, this morning talked about the rural electric associations [REA's] and the potential for loss of power in rural America—Utah, Arizona, many of the Western States that are very remote. And that passing comment left me with the impression that everything was OK. But I would suggest to you that, after having reviewed this and talked to those who are not responding to his survey, as you adeptly pointed out this morning, what we found were those who are least compliant are those who have the least amount of money to become compliant.

Now, the dilemma you face is, What happens if not one but multiple of those REAs fail simultaneously? Do they have the power, do they have the draw or the interconnectivity of the regional grid network to bring down an entire region? And I would suggest to you that a computer analysis shows that they not only have that potential, they have a very high probability that, if they fail, they will bring the network to its knees.

I would be happy to answer any questions you have, Chairman Bennett.

[The prepared statement of Mr. Evans can be found in the appendix.]

Chairman BENNETT. Well, there has been an interesting pattern developed in the ten hearings we have held. It is always the last witness who seems to get everybody's attention. Mr. Evans, you fit into that pattern. You weren't deliberately placed last with that in mind.

We have you as a panel. Mr. Dickason, do you want to respond to some of the comments that Mr. Evans has made about vulnerabilities?

Mr. DICKASON. Well, I think, as I highlighted in my testimony, that rural electric cooperatives are our biggest concern, then transportation, because we do have a number of plants throughout the country located outside major cities. I am not sure there is enough electrical power in terms of bringing in generators by trucks, Senator Bennett, to be able to actually bring our plants up. So we are going to have to require those electrical grids to be up.

Second, from a transportation standpoint, we feel pretty good about the ability of the farmers to get milk to us, but the rail transportation is required to be able to get resin, for example, to our plastic plants and, second, to be able to get coal to power stations as we have a high concentration of plants up and down the east coast. As I flew into Ronald Reagan airport yesterday, we passed a power plant and there were several many cubic tons of coal sitting out there and four rail lines coming in with trucks unloading out of rail cars. And if those trains can't get through here, we won't have power to run our plants.

Chairman BENNETT. Yes. Well, I am satisfied that the large power producers will be all right. I have been in a number of power plants myself. I have stood in the control room of a power plant in Utah where they turned the clock ahead, and I watched it switch from December 31, 1999, Friday, to January 1, 2000, Saturday. It is very important to say Saturday because January 1, 1900, was a Monday. If it were to say 00 Monday, you know you have got a real problem. But it went properly.

I did say to the people who were doing it, you have done this before, and they said, yes, we did it before you came to make sure that it would work. [Laughter.]

Frankly, it didn't work in every aspect. They said, It worked here but it didn't work over there, and so we fixed it before you came so we can now show you that it will work.

They were very confident that in their service area there would be power, but this is a very large power organization. And it is not an REA.

So what you are saying is that even if the large ones work, the REA can trigger a brownout?

Mr. EVANS. They could trigger a brownout, and worse. If that brownout were regional in nature, that brownout could trigger a blackout.

Chairman BENNETT. And how long do you think it would last?

Mr. EVANS. Well, the dilemma is how long it would take to manually go switch off the current computer-controlled network switching. You see, the very thing that has been focused on to breed security into our network has been the ability to quickly react and feed power the opposite way. And that security is not only our security blanket, it is our greatest point of risk. Because

if multiple entities were to suddenly go down and draw off the network, they could pull a sufficient load to first cause, as you pointed out, a brownout and then begin to trigger selective—which is now programmed into the network system, selective blackouts. So the system, rather than blow up the Palo Verde nuclear generator, would begin to selectively shut off sections, and we are talking about a half-million people at a time who would selectively no longer have power.

Now, how long would it take to get that power back on? It would depend in large measure on how many REA's could be isolated, could be turned off of the grid. It would depend on how quickly we could get them back on and what kind of a load that would put on them.

Some of the switching, like the center pivot switching that I was talking about here, it is only one chip out of 80 chips on an IC board that caused the problem. But the ability to isolate, identify, and correct that chip is more expensive than throwing the stupid board away and putting another one in. And those REA's have little expertise and little ability—even though they have forced their end users, the farmers, to put those kind of control panels in, they have little ability to look at those and determine what kind of impact that is going to have on them 330 days from now.

Chairman BENNETT. Going back to your piece of equipment, which piece of equipment was it?

Mr. EVANS. Case Quad-track, like a big——

Chairman BENNETT. That is Big Bertha?

Mr. EVANS. Well, no, actually Big Bertha would dwarf that. That is a combine. It is a tractor that has got quad tracks, like the old Caterpillar wheels, only they are rubberized and there are four of them, one on each corner.

Chairman BENNETT. But that is the system that shut down several days after you did the testing?

Mr. EVANS. This is the system that shut down.

Chairman BENNETT. Oh, this is the system that shut down several days after you did the testing. The first reaction is, well, then, don't test.

Mr. EVANS. Exactly. In part of my written testimony, I said that. We have determined, along with a group of industry folks, that kind of like former Secretary Earl Butz said one time, you know, what a cockroach eats isn't near as important as what he messes up. And to some extent, the cost of what our technicians are fixing may not be the real cost associated with trying to attack this Y2K bug. It is what the silly—you know, cost of doing all the testing is generating.

I gave an example in my written testimony about an insurance company that did a test after spending over $5 million upgrading their computers. Test one grade on Saturday or Sunday. They did exactly what your power company did. They figured, OK, Saturday, Sunday, we are off, we will roll the date forward. We will see if it works. It worked like a champ.

The following Tuesday, they started getting irate phone calls from their customers who were saying, How come our insurance was canceled? A thousand of them, in fact.

What happened was that nearly a decade earlier, the State of Arizona had required the insurance company to notify the State Motor Vehicle Department when an insured's policy lapsed. That system, the insurance company determined, they didn't want to have live so that somebody could break into their computers, so they created a firewall, a system where their mainframe computers, millions of dollars worth of computers, you know, sent a message over to a little probably $2,000 PC sitting there that had been programmed to simply report anybody whose policies lapsed to Motor Vehicle. No one stopped to think that that system was built by the lowest-cost vendor and was plugged into their system and communicated to the Motor Vehicle Department.

Now, you talked about mission-critical problems. When it comes to transportation, my truckload of lemons has to cross six State lines, on average, to get to its end destination. If Motor Vehicle pulls his registration, I guarantee you, he won't get out of the State of Arizona, let alone across those over five State lines.

So there are so many intertwined business relationships that for us to say—I went out and tested my truck, Jose tested it, and it is not going to die at midnight on January 1st. On the other hand, if Motor Vehicle pulls the registration on January 1st, who cares whether the truck runs? It doesn't get its job done.

That is the kind of mission-critical evaluation that I hope your perception in pushing this committee's work forward will cause to occur in America.

Chairman BENNETT. We are trying to be the entity that looks horizontally rather than just vertically at a truck or a motor vehicle system it is on, but sees how the things interact. But you are the first witness I have heard who has indicated that testing itself can be dangerous.

Mr. EVANS. Testing itself can create a problem.

Chairman BENNETT. Are you advocating, then, that they don't test?

Mr. EVANS. No. I am suggesting the alternative is worse, because if I test now and cause the problem—for instance, with the three center pivots, the $10,000 damage we did, we were able to find a solution within the last 4 or 5 days. It took us 3 months to do it, but we were able to find a solution. The solution was to put a filter on the system that prevented our main computer from sending a date calculation to a chip that didn't have the capacity to handle that calculation and would get into a loop.

Now, what we found was that only a third of the subsequently tested machines would actually fail. They look the same. They have the same manufacturer's name. They were bought within a 3- or 4- or 5-year period. Some of them fail, some of them don't fail.

Chairman BENNETT. We have run into that phenomenon in the Defense Department where you have two pieces of equipment with identical model numbers from the same manufacturer, and on testing, one fails and one does not. The reason is they bought the chips from different batches.

Mr. EVANS. Absolutely, and that is what I started to say. What we found was that we had a Korean chip of one particular vendor number that apparently did not have a subroutine that would cause it to bail out if it got into a loop. In other words, if it said

line 15 of code, go to line 300 of code, line 300 of code says go to line 15 of code, and it just sits there and goes around and around, and because of the nature of the chip, it can't get out of that loop.

There were apparently some of those chips on some of those machines; even the serial number sequencing and everything seemed to be the same. As they pulled them out of their batch bag, some of them were bad, some of them were good.

Mr. DICKASON. I would certainly echo what he has to say in terms of testing. You know, we are testing heavily right now, Senator, and we will continue to test. That is the only way to find out beforehand what the problem is.

We haven't seen the same conditions occur, and we may be just lucky so far. But we have not seen anything break yet. Software, you know, has gone bad, and we fixed that. But from a hardware standpoint, so far we have been very solid.

Chairman BENNETT. But you haven't seen a situation where the testing actually caused a major failure?

Mr. DICKASON. We have not yet. But we are not through our testing yet, so I am cautiously optimistic that we won't, but we are taking it day by day to be sure.

Chairman BENNETT. We did see some of that in our hearing on medical devices. We had a witness—and, again, he was the last witness——

Mr. EVANS. Bad timing.

Chairman BENNETT [continuing]. Who came forward and said here is a piece of equipment where I had a letter from the manufacturer certifying that it was Y2K compliant. We turned the clock ahead just to test the certification from the manufacturer, and we got the loop that you are describing. So we said, OK, we will turn the clock back and fix it, but turning the clock back did not fix it.

Mr. EVANS. No.

Chairman BENNETT. They ultimately had to discard the whole piece of equipment, just had to throw it away, because they were unable to get in to stop the machine from looping.

Mr. EVANS. From looping.

Chairman BENNETT. It is a phenomenon that has occurred in other areas, but this is the first time I have heard of it occurring in agricultural equipment.

Mr. EVANS. One thing—and I hope the very suggestion of it to you, Senator, won't destroy its effectiveness. But under mission-critical scenarios, we have talked about—and I did not conspire with Cargill or with the Secretary or with your committee to write this report to you, but identify the very same order, sequence of risk. No. 1 is the utilities. No. 2 is telecommunication. We list No. 3—I did—in our organization, No. 3 is the embedded chip problem. And No. 4 would be the financial institutions.

But in that process, it is intriguing to look at it in terms of where we are now and what we can do about it over the course of the next 330 days. Those problems that we face, we are far better off to swallow whatever pain, however painful that pill might be, in a period of time that we have between now and the millennium bug, that would be a much better scenario for me to have a problem and then have a little time to try to work it out than it would be for

every farmer in every part of America that has the same kind of equipment I have to suddenly have it fail simultaneously.

And so can testing cause a problem? Absolutely. Is that reason to suggest that we do nothing? Absolutely not. That is the worst. I have identified to my colleagues in the Farm Bureau that the first and greatest fear that I have is the fear of fear, the fear that phobia will run rampant and people will do the kinds of things you talked about earlier.

The second and almost equally great fear is the opposite end of that spectrum, and that is apathy; that people will say, ah, look, Evans went out there and tested and he blew up three of his—I am not going to do that, I will just do nothing, I will wait until the year gets here and we will see, you know, maybe I will be lucky enough to have the one-third that don't crash.

Chairman BENNETT. Let me ask you an unfair question, but it is the same unfair question I get asked all the time. What are you going to do? Are you going to stockpile any extra food?

Mr. EVANS. Yes, sir. I am going to have fuel. I am going to have food. I have a generator sufficiently large to operate the critical aspects of my business. We have a 72-hour supply of fuel to keep that generator running, thinking that that will buy me enough time so that everybody else can figure out what is wrong and get back on line.

Chairman BENNETT. You answered my next question. Seventy-two hours is different than——

Mr. EVANS. Than trying to do a 3-year or——

Chairman BENNETT [continuing]. Going to the hills and barricading yourself for 5 years. You don't think that is a legitimate strategy?

Mr. EVANS. I think that has fueled a cottage industry in America, that it may be generating some additional business for us now, but at a tremendous expense down the road in terms of credibility.

Mr. DICKASON. And as you know, in dairy we can't stockpile milk longer than 72 hours. We have to process it quickly. So since we are make-to-stock and a make-to-order operation, we will probably stockpile some raw materials, such as resins and cartons and cardboard, will continue as normal.

Chairman BENNETT. So you are back to the ice storm analogy?

Mr. DICKASON. Yes.

Chairman BENNETT. Is the Farm Bureau doing anything in terms of awareness with its members, the American Farm Bureau?

Mr. EVANS. Yes, we are. We have identified a strategy that includes nine specific steps for individuals and organizations to take. We believe that they are prudent. We believe that they are the kinds of steps that ought to be taken whether you are preparing for an ice storm or for a millennial bug or for an infestation of beetles. You know, there are certain things that we as a society have come to take for granted, and farmers and ranchers, by and large, have never had that luxury. We tend to be out there on the cutting edge, and so we get isolated, and so we have learned to deal with those things.

Chairman BENNETT. You live in a world of disasters.

Mr. EVANS. We live in a world where——

Chairman BENNETT. Whether it is——

Mr. EVANS. Yes, where we do not have control of many of the variables that determine our success or failure. So we have to become more cognizant of those variables over which we do have control. And when it comes to our families and our animals, their welfare is a big part of our thinking process. And so we are going to have food on hand in my operation. We are going to have water. We are going to have supplies so that we could last for a few days until problems could correct themselves or at least be addressed.

Chairman BENNETT. Would you share with the committee those nine steps?

Mr. EVANS. Absolutely.

Chairman BENNETT. You don't need to do it now.

Mr. EVANS. They are in my written testimony.

Chairman BENNETT. Oh, OK.

Mr. EVANS. They are a part of the written testimony.

Chairman BENNETT. OK. Thank you very much.

Do either one of you, or representatives from Cargill, as we wind this down, have any comments you want to make over the presentations that were made by Senator Lugar or Secretary Glickman and his associates?

Mr. DICKASON. I would just comment that I think they are right on target with what we are trying to do. What I heard both Senator Lugar say and the Agriculture Secretary say and the chairman say that while they are concerned about what is out there, they are taking active steps to go after people that haven't responded. They are concerned about the numbers that they have in terms of surveys and participants, and they are going to work hard on that. That is right along where we are going, too. So I laud their efforts.

Mr. EVANS. I guess I would have to be the one to be more critical, obviously. I think that they are doing much, but what they are doing now I wish they had done a year ago. I used to fly an airplane, and I don't think I would want to get in an airplane that was certified to be 60 percent operational.

I am in a business that flies by the seat of our britches all the time. We operate on very thin margins. And as we saw with the hog crisis, a mistake, a calculated misinformation—whatever it was that misjudged the hog slaughter numbers by just 10 percent caused one of the most catastrophic drops in hog prices in our lifetime, maybe ever.

So we are in a business that can't afford substantial disaster in terms of information disasters out there. And I hope that your efforts and the members of your committee to continue to push Secretary Glickman, continue to push the process along, will help them to understand the urgency of doing this.

Chairman BENNETT. I appreciate that, and I have said publicly and here again today that I am very concerned about anybody who misses the March 31 deadline because to say, we have March, April, May, June, what is the difference when the problem doesn't hit us until December, doesn't give you enough testing time. You, I think have dramatized that, Mr. Evans, in your demonstration that testing alone can produce unforeseen problems which then take problems to fix. Even though you thought everything was just fine, and at a more rapid timetable—it took you what, three months to work out this on one piece of equipment?

Mr. EVANS. Right.

Chairman BENNETT. If, in fact, somebody as large as the Department of Agriculture they miss their March 31 deadline and have nine months, and then they run into some of the kinds of things that you have outlined, the nine months is going to go by very, very rapidly. So we are doing our very best with every Federal agency. I know John Koskinen is from his standpoint as the President's Y2K czar going to keep pushing it.

Well, this has been very helpful, and we appreciate you. We appreciate the patience of the three representatives of the private industry that sat through the time that we spent with the Secretary. The hearing is adjourned.

[Whereupon, at 11:06 a.m., the committee was adjourned.]

APPENDIX

ALPHABETICAL LISTING AND MATERIAL SUBMITTED

PREPARED STATEMENT OF CHAIRMAN ROBERT F. BENNETT

Good morning and welcome to our first hearing of the 106th Congress. This is the 10th hearing of this Committee since its inception in April of last year, and in that time we've attempted to answer the questions everyone is asking about the Y2K problem. Will the lights turn on? Will banks have cash? Will I be able to drink the water? At its core, the Y2K issue has forced us to confront our vulnerabilities as human beings and re-evaluate our basic needs, both as individuals and as a nation. The advent of time- and labor-saving technologies have provided us with comforts and conveniences beyond our wildest dreams, but the basic hierarchy of human needs—food, water, shelter—has remained unchanged for thousands of years. That is why we have made the food industry the focus of today's hearing.

In this land of plenty, we manage not only to feed a population of 260 million people here at home, but export $70 billion dollars worth of food products each year to people around the world. We are not used to food shortages or even the threat of shortages in the United States. We take for granted that our neighborhood grocery store will have shelves stocked with food products that are safe and affordable. In addition, we expect variety. We demand everything from frozen TV dinners to fresh vegetables, all under one roof. We demand live lobster shipped overnight from New England and fresh lettuce shipped in 72 hours from California. And we demand high quality and a choice of brands.

Our Committee staff is flooded with calls asking, "will there be food on the shelves?" It is vital that the food industry address this crucial question, and provide us with a realistic assessment of their readiness, upon which we may base personal and community preparations. In other words: is there a need to stockpile? And like most Y2K questions, it leads to another: will stockpiling lead to shortages? These questions will not be answered definitively here today, but I am optimistic that we can take a step toward dispelling fears and educating Americans about what to expect on January 1, 2000 and in the weeks and months to follow.

Comprising 16% of our nation's economy, the food supply industry is large, complex and interdependent. Within the United States, the industry has integrated modern information technology into processes that increase productivity, yield, and profitability. A recent survey highlighted that more than 80% of American farmers use computers as an integral part of their business; a third of those are connected to the Internet and almost 75% own a cellular phone. In 1994, farmers began to use the Global Position System (GPS), leveraging the capability to pinpoint location information about specific field areas. This accurate location data eliminates the guesswork in determining yield variances, crop damage, and soil fertility.

These innovations, along with advances in seed, fertilizer, pesticide, and herbicide, have made American farmers the most productive in the world. A century ago the average U.S. farm output fed eight people. Today, it feeds 212.

Although I have only addressed farmers in my remarks, ranchers, processors, manufacturers, distributors, and local retailers have made similar advances that have led to their dependence on high-technology. All are important to the food supply chain. Possible Y2K disruptions in one can ripple through the chain, affecting all. Like other industries, the food industry is critically dependent on the transportation and utilities industries, and their Y2K preparedness will directly impact the food supply.

At our October hearing, Mr. Lou Marcoccio of the Gartner Group predicted a 66 percent chance that a mission-critical failure would occur within the farming and agriculture industries. In December 1998, the Food Supply Working Group, chaired by the USDA, issued an initial assessment of the food supply's Y2K preparedness.

The assessment said the public can be confident that the major domestic companies providing most of the key foods will continue to operate in spite of the Y2K problem. The state of readiness within the food industry is, they said, "encouraging." Our information needs to be definitive as long as there are gaps in our knowledge.

Last October, our Committee held a hearing focusing on business and Y2K. Not a single major food company was willing to appear to provide testimony at that hearing. At that time, I put the food industry on notice that we would we hold a hearing early this year addressing their Y2K preparedness. I commend those companies that have willingly come forward to testify on this critical problem today.

To address the Y2K issue within the context of the entire food chain, from 'farm-to-fork' if you will, it is necessary to hold two hearings. Today's will focus on the 'farm- side' of the food chain: producers and processors. The second will be scheduled for later this month and will focus on the 'fork-side' of the chain: manufacturers, distributors, and local grocery and supermarket retailers. I believe that these distinguished and credible witnesses will provide excellent testimony that will greatly increase the body of knowledge regarding the Y2K preparedness of the food industry.

Today's hearing begins with testimony by Senator Richard Lugar, Chairman of the Senate Agriculture, Nutrition, and Forestry Committee. I want to take this opportunity to publicly thank you and your Committee for your efforts in addressing this critically important problem as well as preparing for this hearing. We look forward to your insight on the Y2K problem within the food supply industry. Secretary Glickman will follow, providing testimony on USDA's assessment of the food industry's Y2K preparedness and a description of his agency's outreach efforts. On the third panel, Mr. Thayer, Corporate Vice President and President of Cargill Foods, will testify on the Y2K issue from the perspective of food processing and distribution. Finally, on the last panel, we will hear from two witnesses that will provide the perspective of Y2K impacts and issues for food producers. Mr. Dickason, CIO of Suiza Foods, will testify on Y2K within the dairy industry. Mr. Ken Evans, President of the Arizona Farm Bureau, will address Y2K impacts within the context of 'precision farming' and general crop farming.

We welcome today's witnesses and thank them for their contributions.

PREPARED STATEMENT OF ALLEN DICKASON

Good morning Mr. Chairman and members of the Subcommittee. I am Allen Dickason, Chief Information Officer for the Suiza Foods Corporation. Thank you for inviting me to appear before you today to discuss the efforts Suiza Foods has undertaken to address the Year 2000 problem. I would first like to commend the Committee for its efforts to investigate the potential effects of the millennium bug and to broaden the national awareness of this potentially serious problem.

As you may know, Suiza Foods is a leading processor and distributor of fresh milk and related dairy products, shelf-stable and refrigerated food and beverage products, frozen food products, coffee and plastic containers. Suiza Foods' products are distributed throughout the United States and Puerto Rico.

SUIZA'S Y2K PLAN

As members of this Committee know, the complexity of analyzing and quantifying the scope of the Y2K problem and then implementing comprehensive and proven solutions is a huge undertaking. The so- called "Y2K bug" may potentially affect software application programs, computer operating systems and any other computer program that processes dates. At Suiza, we have concentrated our efforts on ensuring that all such programs used in our nationwide operations will operate properly when we transition to the next millennium.

About a year ago, we began our Y2K efforts with the objective of ensuring that Suiza is 100 percent Y2K complaint by June 30, 1999. We established a Suiza Foods Y2K Project Management Office, which is responsible for all internal and external Y2K activities. This office has put into place a structured approach that lays the groundwork for Suiza to meet the Y2K challenge. That approach has five key steps which I will speak to briefly this morning.

AWARENESS

Our first step was to make all employees of our Company aware of the Y2K problem as it relates to Suiza, and to involve each corporate division in the process. As

you may know, the Suiza family is comprised of three core divisions: Suiza's fluid milk processing, Morningstar Farms' dairy foods production, and Continental and Franklin Plastics' container manufacturing. Each division has a Y2K team, including an information technology person and a manufacturing person. We hold weekly conference calls to track our progress, and monthly Y2K status and financial reports are developed. This continual monitoring has greatly assisted us in becoming Y2K complaint.

We have also issued a series of compliance guidelines to assist our field units, and we have assembled and distributed Suiza's Y2K project manual for all field and corporate coordinators. As a result, many of our regional operators have made significant progress and have gained great knowledge that we have been able to leverage.

We are also publishing a new Suiza Y2K newsletter that goes to all of our employees. It is designed to maintain a high level of awareness of our Y2K efforts among our employees. We have also prepared a Y2K Website, which is up and running.

ASSESSMENT

Our second step was conducting a company-wide assessment of our Y2K readiness, as well as a Y2K review of each of our potential mergers and acquisitions. We contacted the hardware vendors directly to assure that each piece of equipment was Y2K compliant, and are in the process of starting to test the software and embedded systems ourselves to identify any date problem.

REMEDIATION AND CERTIFICATION

We then established five criteria to determine business criticality of our systems, and brought in two independent companies to test and double-check those systems. Both companies have been conducting random audits in all of our plants, and we will complete the necessary changes as they are discovered.

We are also visiting our major suppliers and reviewing their Y2K programs, as well as writing to our other vendors asking if they are Y2K compliant. So far, approximately 90 percent have responded, albeit mostly by form letter.

Although our testing is in the early stages, it will cost less and take less time than originally anticipated. While the dairy industry is a very capital intensive industry, we are fortunate that Suiza, like a number of others in the dairy industry, uses standardized equipment like Allen Bradley Controls. Moreover, because many dairy operations are family owned and operated, there is low turnover in our industry. Thus, we are fortunate to have good corporate memory of what has been done in the past.

IMPLEMENTATION

Our final step will be implementing the necessary changes. While we will be engaged in contingency planning from June to October, we are confident that all of our systems will be Y2K compliant by our June 30 deadline.

Suiza is extremely proud of its approach and the progress it has made to address the Y2K problem. Our Y2K readiness efforts are 50 percent complete, and, while the task is a challenging one, we are confident that we will succeed. Our livelihood depends on the complete confidence of consumers and customers, and we want to ensure that they continue to enjoy uninterrupted quality and service in the new millennium.

CONCLUSION

The work of this Committee is critical to the overall preparedness of our nation in dealing with the Y2K problem. Please continue to make every effort to increase the awareness of the Y2K problem and to work with other Congressional committees in their efforts to assist small and medium-size companies address the problem. Since many of our operations are located in rural areas, it is extremely important that rail transportation and smaller utility companies be Y2K complaint or prepared to deal with any problems that may occur.

Again, Mr. Chairman and members of the Committee, I thank you for the opportunity to appear before you today. I will be happy to respond to any questions you may have.

RESPONSES OF ALLEN DICKASON TO QUESTIONS SUBMITTED BY CHAIRMAN BENNETT

Question 1. Do you have any concerns about the readiness of USDA? Could you describe how a failure in a mission critical system at USDA might impact your business and others in the dairy industry?

Answer. Based on Mr. Glickman's testimony, USDA has made significant, timely progress in identifying Y2K problems in the dairy industry and other food industries, implementing educational programs for the industry and consumers, contingency planning and assisting small and medium-sized businesses in addressing the Y2K issue.

Question 2. Mr. Dickason, you mentioned in your testimony that Suiza's Y2K teams are made up of people with expertise both in information technology and manufacturing. Would you say that that coupling of IT and embedded systems expertise has allowed Suiza to rapidly identify and address its Y2K vulnerabilities? Would you recommend this methodology to other companies within the dairy industry?

Answer. The primary reason for doing this is twofold? first, a coordinated effort across both areas of expertise is necessary to be successful. Both teams have areas of expertise in certain aspects and depend on each other to affect a total solution. Secondly, it is rare for one individual to have both I/T and Operations (Manufacturing/Distribution) expertise. I believe this combination of skills has helped us accelerate our program and improve our thoroughness. Other companies in the dairy industry may be utilizing different methodologies that are successful for them.

Question 3. You mentioned that the Suiza issued compliance guidelines to its field operations. Are you aware of similar efforts in the dairy industry to equip regional operations with similar tools?

Answer. No, I am not aware of the efforts of others in the dairy industry to utilize similar tools.

Question 4. Some companies we have spoken with in other industries have expressed concern that even though their company is making progress some employees believe that the problem remains unfixable. Has the Suiza newsletter and corporate communications helped keep employee morale high?

Answer. The corporate communications have certainly helped. There is high confidence among Suiza employees that we will complete our mission and move into the millennium with minimal disruption. I personally get more questions from employees about upgrading their home computer systems and what software packages are compliant or need a patch to function properly.

Question 5. How is Suiza Foods addressing business continuity and contingency planning for Y2K?

Answer. Business continuity was initially addressed when we did a criticality assessment during the early phases of our Y2K project. We will use that information as part of our contingency planning, which will be addressed from June to October. Some of our Purchasing people are holding on-going discussions with suppliers as they meet during the normal course of business.

Question 6. USDA's initial assessment of the Y2K-readiness of food industry companies found that many large companies have yet to address key issues such as contingency planning, embedded systems, etc. Based on what you have done at Suiza Foods can you comment on the importance of examining embedded systems and developing contingency plans?

Answer. Suiza's Y2K approach has five key steps: (1) build employee awareness; (2) conduct a company-wide assessment of Y2K readiness; (3) identify criteria to determine business criticality of systems and assess Y2K readiness; (4) conduct Y2K-readiness testing and review Y2K programs of suppliers; and (5) implement necessary changes. Suiza's Y2K-readiness testing includes testing of embedded chips. Embedded chips may perform date-dependent functions and therefore it is important to test embedded chips for Y2K readiness. The implementation step of Suiza's Y2K approach includes contingency planning. While Suiza is confident that its efforts will be successful, contingency planning is an important aspect of its approach to the Y2K problem. As discussed during Suiza's testimony, milk must be processed within 72 hours and therefore cannot be stockpiled ahead of time. Therefore, while Suiza will be able to stockpile some raw materials, such as resins, cartons and cardboard, it is not possible to stockpile milk.

Question 7. Some people have expressed concern that fear could cause people to stockpile food and possibly causing shortages. Is Suiza Foods concerned about a potential run on dairy products during the last days of 1999? Do you have any suggestions on how to prevent such an episode?

Answer. We refer you to Suiza's testimony from the hearing. As noted above, because milk is perishable, it cannot be stockpiled for a significant period of time. Suiza's focus is to ensure that its customers enjoy uninterrupted quality and service in the new millennium. Suiza's success depends on the confidence of its customers.

Question 8. Gartner Group recommended that the USDA begin a public outreach on the safety of the food supply in order to reduce the chance of public panic. Would this be any help to the dairy industry?

Answer. We believe it is the industry's responsibility to reassure consumers that the food supply will be uninterrupted. As noted by Mr. Glickman, industry groups have the greatest interest in ensuring that the public does not engage in unnecessary stockpiling. Of course, if USDA plans to begin a public outreach on the safety of the food supply in addition to the contingency planning, small business assistance and other efforts it is undertaking, that would assist the industry's efforts to educate and reassure consumers on the Y2K problem.

Question 9. How confident is Suiza Foods that businesses on which it depends for delivering milk to facilities and transporting and distributing products will be ready?

Answer. Suiza is visiting its major suppliers and reviewing their Y2K programs and is writing to its vendors asking if they are Y2K compliant. Approximately 90 percent have responded. As discussed during Suiza's testimony, Suiza's main concerns are the Y2K readiness of small rural utilities and rail transportation.

Question 10. Are you aware of any examples of systems used to ensure the safety of milk that could be affected by the Y2K problem and what has or can be done in this area?

Answer. One of the obvious locations/systems is the quality control laboratory. The instrumentation and computer enabled quality control systems that assure our customers that we are meeting or exceeding the quality standards are subject to the same requirements as the rest of our Y2K efforts. Additionally, some of the date coding equipment that places the expiration date on the containers may need to be modified to achieve compliance.

Question 11. A Company like Suiza Foods interfaces with many other companies on a daily basis in support of its business operations to supply dairy products. What steps has Suiza Foods taken to assure itself that suppliers and other companies on which it depends will be Y2K-ready and will not impact company businesses?

Answer. Please see response to Question 5. This will be included as part of our contingency planning.

PREPARED STATEMENT OF VICE CHAIRMAN CHRISTOPHER J. DODD

Good Morning Mr. Chairman.

Y2K is an insidious digital pestilence that may threaten aspects of our robust food production system. Over 60 years ago the bollweevil and the dustbowl wreaked havoc in the low-tech breadbasket of America. Of course in those days, I would venture to say that between the shovel and the spoon, food production was accomplished with hard work and simple machinery.

Today, however, it is a very different story. Information technology and embedded systems are almost as critical to the food supply chain as photosynthesis. From the germination of the seed until the time product arrives on the consumer's plate, technology plays a vital role. If left unchecked this digital pestilence could needlessly gnaw away at corporate competitiveness and consumer confidence.

The food industry, as whole has remained largely silent on the Y2K issue. But has quietly expressed confidence in their ability to supply, process and sell products. Some consumers have interpreted the chilling corporate silence as inactivity. In an attempt to avoid being associated with Y2K, the food industry may have inadvertently contributed to public fear. One way to ameliorate concern surrounding the Y2K problem and its impact on food supply is to share information with the public about the preparations underway.

According to a Time/CNN poll published in Time's January 18, 1999 issue, 59 percent of those polled indicated they were somewhat or very concerned about Y2K. When asked if they would stockpile food and water as protection from associated Y2K problems, 33 percent said they might.

Retailers and manufacturers are extremely concerned that these fears could cause a surge in demand by late summer. Preparing to meet the sudden increase in demand takes approximately six to 9 months of lead-time. They must start making decisions now to avoid possible shortages. If they miscalculate and are unable to meet such a demand, this could flame public fears as we move toward December 31, 1999. It is increasingly apparent that a national public information campaign

is needed to address public and business fears by providing recommended guidelines for individual preparedness.

I would like to point out that the Committee tried to have a hearing like this in October 1998, but no one would testify. I would like to note that the witnesses before us today have willingly come to share their information. For the record I would like to share the top nine reasons why others in your industry have chosen not to attend.

9. don't want to be associated with a bad news story,
8. our corporate policy is not to discuss technology or any other competitive issues in public,
7. we have nothing to add that hasn't already been said in other industry sectors,
6. if we testify for your Committee, every Committee will expect us to testify,
5. we have nothing to gain and everything to lose,
4. brand loyalty is extremely fragile,
3. the timing is bad, we are too busy,
2. the cost in terms of time and expense is too high to justify coming out to testify (western based companies generally), and
1. our lawyers advised us not to testify.

I find it difficult to accept that the big players in the corporate food production, processing and retailing have been so reticent to come and talk about a shared problem. I am looking forward to today's testimony.

PREPARED STATEMENT OF KEN EVANS

Good day. My name is Ken Evans and I am the President of the Arizona Farm Bureau Federation. I am here today representing the American Farm Bureau Federation and will bring you our concerns on the potential problems of Y2K.

The following "real-life story" is just a glimpse at how the Y2K glitch might impact our economy when the New Year arrives:

Twelve company executives and computer information specialists huddled anxiously as the clock clicked ominously toward midnight. Would the massive network shutdown? Would the mainframe continue normally, but have the workstations lock up? Would the millions spent fixing the bug work, making this test a non-event with everything operating properly? Or would the whole system crash and burn?

Then someone began a count down: five, four, three, two, one. Five seconds, then ten, then a minute and every system seemed to be operating normally. A cheer and sigh went up from the exhausted, anxious executives.

This insurance and financial sector business has been at the forefront of addressing and fixing the Y2K bug, so it probably would not have been a shock to the company executives that their trial run had proven successful.

It wasn't actually midnight on December 31, 1999. It was 10 a.m. on January 9. After all of the exhaustive and expensive fixes, mirrored runs and certifications that they were Y2K compliant they had chosen to reset their computer's internal clock to 12/31/99 and find out for sure that they were ready for the new millenium.

Several hours later with everything running smoothly, the executives went home elated that the system passed the test but wondering if it had been worth all of the money, work and worry. By noon on Sunday, the computer had been reset to the correct time and all systems tested a go. Maybe this Y2K bug mania has really been blown all out of proportion?

There has been much controversy lately about what will happen at 12:01 a.m. January 1, 2000. Will my pickup start? Will the tractor run? Will the electricity on my farm or ranch stay on? Will my phone work? Will the computer at the local bank stop running? Will all the farm equipment worldwide keep working? Will our Federal Government, including the U.S. Treasury and the IRS, shutdown? I'm sure you've heard it all and more.

Everyone who owns a computer, or machinery with a computer chip, has probably experienced some sort of "mechanical glitch" ranging from a mild nuisance to a full-blown catastrophe. But is the biggest crash of all (for farmers, ranchers, other individuals and the government) set to happen in less than 330 days?

Back to the insurance story. Proudly announcing to the staff on Monday morning their successful "live run" over the weekend, the executives were totally unprepared for the events of the next few days.

Within a few days the company phones were lit up with irate customers wanting to know why their policies had been canceled. The company was sure their computer had not done it, but the calls continued.

It turns out the genesis of the problem was when Arizona state passed a mandatory insurance law a decade ago. After a plague of people buying insurance, going in and registering their cars and then promptly canceling their coverage, the state initiated a notice provision requiring insurance companies to notify the Department of Motor Vehicles whenever an insurance policy lapsed.

By the mid–90's they had converted to an e-mail notice process directly from the insurance companies computers to the State DMV computer. A third party vendor created that software patch. And guess what? It wasn't Y2K compliant.

The add-on software for notifying the state that the insured policy had lapsed was triggered when the mainframe was reset to the year 2000 but the software read it as 1900. For the thousands of insured motorists who were notified by the State that their registration was being pulled because their insurance had lapsed, assurances that their insurance company was Y2K compliant is a bit hollow.

The term "Y2K compliant" obviously is much more complex than most have realized, but less catastrophic than many doomsayers predict.

Just last month, the Federal Government reported that Social Security is "safe from the Y2K bug." But, what does this statement really mean? I chaired a farmer conference on the future of Social Security in Albuquerque last month, and I can attest from the questions raised by the thousand or so farmers in attendance, that there is a great deal of anxiety in the farm community about the effect of the Y2K bug on government services.

Experts at the Social Security Administration (SSA) have assured us that their computers are 100 percent Y2K compliant. This means that the computer glitch in reading the year "2000" in computer format (as 00) has been fixed on the SSA's computers. But a current government survey also states that only 61 percent of "all critical Federal agencies" have been certified as year 2000 compliant. This means that any weak link (non-compliant computer program) in the government computer chain could still "undo any progress made at agencies that have been given a clean bill of health."

For example, the writing and mailing of Social Security checks are the responsibility of the United States Treasury Department. Social Security payments could still be compromised if non-compliant contractors (that share data with the U.S. Treasury) end up causing a glitch. In other areas, 39 percent of Federal agencies are still directly non- compliant, including energy, defense, transportation, justice, education, state and health and human services.

What "other facts" do we know about Y2K and government agencies?

1) The states of Pennsylvania and Nebraska have declared that their government computers are currently over 90 percent Y2K compliant. These are the only two states that have a 90 percent plus rating.

2) The states of Arkansas, Alabama, Oregon, Rhode Island and South Carolina are on record stating that "no work" has yet begun on the Y2K problem (concerning government computer programs).

3) All other states are at "differing levels of compliance" from 10 percent ready to 80 percent complete.

In the private sector, these facts are known:

1) Gartner Group, an information technology firm, estimates that industry will spend $300-$600 billion to fix this problem. Telephone giant MCI is estimated to spend $400 million alone.

2) Fixes will include mainframe computers, personal computers, and any "embedded systems." The embedded systems (or chips in equipment) will be particularly costly to fix.

3) A recent article in Business Economics (a publication of the National Association for Business Economics) states that "major U.S. financial institutions and their related communications, payments systems and external support networks are not likely to fail when the millennium dawns." In other words, your local bank should be OK when 01/01/00 arrives. (But, keeping some cash in hand for the New Year is still a good idea.)

4) Medium and small sized businesses have reported (via a survey of their consultants) that 22 percent are already compliant, with another 26 percent to be compliant by mid-year. An additional 43 percent will be compliant by year-end. This leaves 8 percent that will not be prepared by the first of next year.

From the standpoint of non-government infrastructure, the most vulnerability comes from the utility sector—electricity and natural gas. The regional and national power grid produces both security and risk.

Security—in that if a small power system fails, the grid will be able to pick up the slack and keep them operating.

Risk—in that if a major power company or several small ones shut down simultaneously they could overwhelm the regional grid response and pose a serious threat to millions of people.

Without power, there would be no water, no sanitation facilities, no access to gasoline or fuel, no light or heat, no grocery store access, no access to banks or ATM's, no airline travel or railroad transportation. Cows don't get milked without power and a cow that needs to be milked that isn't, is not a happy camper. For that reason, this sector has spent billions of dollars to insure that they are compliant.

Unfortunately, small REA's that serve rural America are the ones least capable of paying the huge costs associated with insuring Y2K compliance. Because of their high dependency on energy, farmers are particularly susceptible and vulnerable to massive power failures.

Telecommunication failure poses the second greatest risk to America's farms and ranches.

A disruption in this infrastructure sector would wreck havoc with the billions of dollars a day lost in U.S. and international agricultural commerce.

Farmers would be particularly vulnerable because of the perishable nature of some crops and the amount of electronic communications associated with daily business activity. This is particularly true for the Sunbelt states that are at the peak of commercial activity in midwinter. From wiring orders to electronic receipt of funds, telecommunications is the fabric that holds agricultural commerce together as we enter the next century.

Equipment failure caused by imbedded chips pose another very real but unseen problem for America's farmers and ranchers. We are particularly vulnerable because of our remoteness and the lack of technical support in many rural communities. Discovering this problem also may take much longer on farms because of the seasonal nature of the use of some equipment.

Concerning international business, Europe appears to be the most "on top" of this situation. The most lagging compliance appears to be in Japan, Africa and Latin America (especially Chile, Brazil and Mexico).

According to author Michael S. Hyatt, the Millennium Bug is a sort of "digital time bomb" set to detonate when the clock strikes midnight on January 1, 2000, spewing out bad data or stopping work altogether. Such problems could last in some rural areas well into January, or longer into the New Year. This is a major concern for many farmers and ranchers.

My statements are not meant to scare anyone and hopefully the Y2K problem will tend to be more of a mild nuisance, i.e., a cold instead of terminal cancer. But, to be forewarned is also to be forearmed, and there are many practical things that can be done to protect a family farm against this upcoming glitch.

Here are the best ideas for farmers and ranchers to follow:

1) Contact your local farm equipment dealer this fall and learn what suppliers are currently saying about the problem. Ask specific questions concerning your specific purchases. "Will my tractor have a problem? Is it Y2K bug resistant? How do you know?"

2) Develop a potential alternative source of heat and light over the next 300 days. Keep your fireplace, wood stove and flashlights in good operating condition. Make sure the diesel fuel tank is full and your tractor-powered electric generator is in good working condition, too.

3) Secure and file hard copies of important documents. This list includes birth certificates, marriage licenses, religious records, social security cards, as well as deeds/titles/mortgages/loan agreements.

4) Ask the Social Security Administration for an official copy of your lifetime earnings and payroll taxes paid. This transaction can be completed over the Internet with the information sent to your home within several weeks.

5) Retain loan statements showing exactly what you owe, including credit card statements and tax returns.

6) Build-up a short-term supply of water. Not just for drinking and cooking, but for "flushing and brushing" too.

7) Stockpile some food and common household goods. Canned and non-refrigerated food is best since it will last the longest. Also remember toilet paper, paper towels, hygiene products, soap, shampoo, batteries, matches and candles.

8) Prepare an emergency medical kit. The basics include aspirin, bandages, salve, prescription medicine, etc.

9) Keep some cash on hand, just in case your credit cards or checking account is temporarily unavailable.

Once again, this analysis is not meant to scare anyone. Farm Bureau members are accustomed to asking such questions and purchasing such essential items in ad-

vance. The idea here is to make sure these purchases are done ahead of 01/01/2000 "just in case."

Economist Ed Yardini has predicted that the Y2K problem will bring a recession onto the world scene in the year 2000. Farm Bureau has no current policy on this situation, but economically, Y2K can be viewed as a potential shock to our economic system. A shock which would slow the economy—but, hopefully not place it into recession. It could also provide the opposite effect if enough people take the threat seriously and stockup on food and agricultural provisions.

In either case, a rational amount of preparedness appears to be in order.

What can U.S. citizens, as well as farmers and ranchers, do to prepare? Stay tuned, keep reading and keep asking questions of local government officials and suppliers of equipment and services. Remember that there are less than 330 days until the truth of the Y2K situation becomes reality.

PREPARED STATEMENT OF DANIEL R. GLICKMAN

Mr. Chairman and members of the Committee, thank you for inviting me today to talk about the effect of the Year 2000 problem on our nation's food supply.

Almost every day USDA receives questions from citizens concerned about the potential effect of the Year 2000 problem on the food supply. People want to know whether food will be available on, before, and after January 1, 2000. This is a legitimate question to ask and one that the Department of Agriculture, which chairs the Food Supply Working Group of the President's Council on Year 2000 Conversion, has spent a great deal of energy trying to answer.

The Food Supply Working Group is co-chaired by the Under Secretaries for Food Safety, Farm and Foreign Agricultural Services, and Marketing and Regulatory Programs. In includes representatives from the Departments of State, Health and Human Services, Defense, and the Commodity Futures Trading Commission. The working group also includes representatives from USDA agencies whose activities sustain the food supply. All of our agencies are reaching out to their constituents to raise their awareness of the problem.

I am pleased to report that based on the information we have collected to date, the Food Supply Working Group does not believe the Year 2000 problem will cause widespread, or severe, disruptions in the food supply. It is most likely that the year 2000 problem will result in some minor effects, localized by region or by a particular food product.

As part of the President's Council on Year 2000 Conversion, the Food Supply Working Group's job is three fold: 1) raise awareness of the Y2K computer problem and the threat it may pose to our nation's food supply; 2) working with industry, assess the state of readiness of the food sector; and 3) conduct prudent contingency planning to address any problems that might occur. Most importantly, the Food Supply Working Group is focusing on the results it wants to achieve. That is, assuring that on, before, or after January 1, 2000, American farmers and ranchers continue to have the capability to sustain production and move commodities to market and American consumers continue to have access to a safe and affordable supply of food.

Y2K STATE OF READINESS OF THE FOOD SECTOR IS ENCOURAGING

The state of readiness within the food industry is encouraging. The Food Supply Working Group's initial analysis suggests that the American public can be confident that the major domestic companies, which provide most of the key foods, will continue to operate in spite of the Year 2000 problem. An interruption in the food supply so severe as to threaten the well-being and basic comfort of the American public is unlikely.

Assessing the Y2K state of readiness of the nation's food sector is a daunting task. To make the task more manageable and more meaningful to American consumers, the FSWG identified and concentrated on production that is ongoing in midwinter, such as fruit and vegetable growing and meat and dairy processing; basic foods most frequently consumed in midwinter; basic foods most vulnerable to system disruption such as perishable products with short shelf life; and food processing and distribution industries whose processes are automated or date dependent.

FARMERS AND RANCHERS

To determine whether the Y2K computer glitch will affect our nation's food supply, our analysis started on the farm. USDA's National Agricultural Statistics Service (MASS) recently completed a survey, using a representative sample of approxi-

mately 1500 farmers and ranchers from across the country, to determine how vulnerable farm operators are to the Year 2000 problem. The survey shows that most farmers do not use automated systems—those systems which are at risk—in their farming operations. Most of those that do are taking steps to address the Y2K problem.

The survey results, released by NASS today, show that 81 percent of U.S. farmers are aware of the Year 2000 problem. Sixty 8 percent of farmers realize that it could disrupt automated farm systems; however, only 32 percent of farmers use automated systems—most of these are used for record keeping. Only a fraction of all farmers—about 2.5 percent-use automated Systems such as feeding systems; storage systems; milking systems; heating, cooling or ventilation systems for livestock; and global positioning systems in the production process. Most of those who do use such systems have inventoried their systems for Year 2000 problems and are in the process of fixing any problems. Of those farmers who have either fixed or are attempting to fix their Y2K problems, 54 percent estimated that the cost will be less than $1000, while 22 percent were unable to estimate their costs.

Of course, these conclusions assume that other systems on which producers and all of us rely, including power, water, telecommunications, transportation, banking, and others continue to operate without disruptions. However, the Year 2000 news from America's farms and ranches appears to be very good—there is no reason to anticipate any decline in the productivity of American agriculture, at least not due to Year 2000 problems that may occur on the ranch or the farm.

RURAL UTILITIES

With responsibility for rural business and infrastructure development, USDA has given careful attention to the Y2K readiness of rural utility providers. In February 1998 the Rural Utilities Service (RUS) started surveying its telecommunication and electric borrowers to determine their level of Year 2000 preparedness. As of January 6, 1999, RUS had received responses from 416 electric cooperatives and 457 telecommunications cooperatives and companies, representing just over 50 percent of their total borrowers. Eighty percent of electric cooperatives and 88 percent of the telecommunications cooperatives and companies indicated full compliance or specific plans for full compliance by January 1, 2000.

RUS's field representatives are making personal visits and telephone contacts with all electric and telecommunications borrowers who did not indicate when they plan to become compliant to determine their status and offer assistance. As you know, these utilities are also being monitored by the utilities industry and the Energy Working Group headed by the Department of Energy.

MAJOR FOOD COMPANIES

Our assessment also covers food processors and distributors which play an important role in getting food grown on the farm into the hands of consumers. The FSWG contracted with the Gartner Group, a worldwide business and information technology advisory company noted for its expertise in the year 200 problem, to assess the sate of readiness of many of the major companies that provide consumer-ready food products. The Gartner Group study focused on the largest producers and distributors of the foods most consumed in the winter months. The study examined companies that control significant market share of 19 key food groups, including milk, meat, bread products, fruits and vegetables, and infant food. In most cases, the companies the Gartner Group surveyed collectively account for over 50 percent of the market share of their respective food groups. The Gartner Group also collected information on agriculture input suppliers—the major seed, fertilizer, and feed producers who control 40 to 60 percent of the market these products—and data on major food service wholesalers, general line grocery wholesalers, and food retailers representing between 30 percent and 50 percent of the food service wholesale/retail market.

The Gartner Group concluded that these companies are "making satisfactory preparations and should be well prepared to sustain operations despite any interruptions caused by the century date change." They point out that "while few of these companies will be immune from any interruptions, it is unlikely that these interruptions will be much more than moderately distributed, minor disruptions that will be resolved within a few days' time." At the same time, the Gartner Group did not see evidence that these companies are focusing sufficient attention, as yet, on contingency planning which will be critical if their remediation efforts are not fully successful.

TRANSPORTATION COMPANIES

Because transportation is such a critical link throughout the food supply chain, USDA's Agricultural Marketing Service (AMS) studies the Year 2000 state of readiness of the transportation sectors affecting the U.S. food supply. These included railroads, barges, air carriers, motor carriers, U.S. and foreign ports, and container ships. The study found that, overall, most of the transport sectors which distribute food throughout the United States and to our trading partners overseas are actively addressing the Year 2000 problem. As is apparently the case with most industries, the study found that smaller companies, such as independent truck owners, freight forwarders, and short line railroads, are most behind in addressing the Year 2000 problem. However, in the transportation sector these firms are increasingly being forced to fix their Year 2000 problems because of the assessment and remediation work being undertaken by larger carriers who cannot operate without them, and who are questioning whether or not the smaller companies they interact with are compliant.

FOOD IMPORTS AND EXPORTS

The Food Supply Working Group also assessed the vulnerability and readiness of foreign suppliers and markets which are important to U.S. consumers and vital to the overall health of the U.S. agricultural economy. Attaches of the Department's Foreign Agricultural Service (FAS) gathered information from foreign government officials, industry associations, and private companies on Year 2000 preparations in 81 countries which account for roughly 97 percent of U.S. food imports and 95 percent of U.S. exports during the first quarter of the calender year.

The working group's initial assessment found that key foreign markets for U.S. food products will likely have a relatively low risk of Year 2000 disruptions to their import, processing, distribution, and retail claims. However, some exporting countries have not shown significant progress. Consequently, there is some risk of short-term Year 2000 disruptions to U.S. imports of food, especially perishable commodities. Certain of these supplier countries appear to be increasing their preparedness efforts. However, should there be a disruption of imports, domestically grown fresh fruits and vegetables will continue to be available, although with less variety and possibly at somewhat higher prices than usual.

The Food Supply Working Group will continue to monitor the Year 2000 readiness of our key foreign markets and suppliers. In addition, the working group plans to work with other U.S. government agencies and international organizations to take a closer look at the readiness of ports and market infrastructure of key recipients of our food aid.

WORKING WITH INDUSTRY PARTNERS

Mr. Chairman, USDA is also encouraged by the information the Food Supply Working Group has received as a result of meetings with industry partners.

For example, the dairy industry appears to be well underway in their Year 2000 planning. Because dairy products rank second as the foods eaten most frequently by American consumers (nonalcoholic beverages are No. 1) and because dairy products have a short shelf life and therefore need to be restocked regularly, the working group hosted the first of several planned industry "roundtable" discussions with representatives of the dairy industry in November to raise awareness about potential Year 2000 problems facing the dairy industry. Following the roundtable, the industry the saw a need to conduct its own assessment. The International Dairy Foods Association (IDFA), the National Milk Producers Federation (NMPF), and the International Association of Food Industry Suppliers (IAFIS) surveyed their members to evaluate Year 2000 preparedness. Early results from the surveys suggest that most of the processes involving getting milk from the farm to the processor have manual overrides. The technology involved is such that no interruptions are anticipated in Betting milk to processors, as long as electricity remains available. Responses from the major dairy processors in the United States indicate that they will be completing their critical systems by April of this year; and they plan to complete non-critical systems and contingency plans by July. In addition, they have also been working with their suppliers to be certain that they won't have interruptions due to Year 2000. Equipment suppliers who responded to the survey indicate that they are also addressing critical and non critical systems, and developing contingency plans.

A second roundtable discussion was held earlier this week with representatives of the meat and poultry industries. Representatives of five meat and poultry associations expressed confidence that their members are taking steps to address the Year 2000 problem; however, they did express concern about utilities and other factors

outside their members' control. Similar meetings and discussions will be held throughout the year with representatives from other food industry groups, including wholesalers and retailers, fresh fruits and vegetables growers, and small food processors and distributors.

THERE IS STILL MUCH WORK TO BE DONE

Though the Food Supply Working Group is confident and encouraged about the food supply chain, there is still a tremendous amount of work yet to do, for the food industry in general, for agribusinesses, and for USDA. The initial assessment of the domestic food supply focused only on the major companies; the remainder of the market has not been systematically studied. Thousands of small and medium-sized companies—from local grocery stores to independent wholesalers and retail chains, as well as restaurants—also play a critical role in providing food to millions of Americans. To address this issue, the Food Supply Working Group is building cooperative relationships with over seventy trade and commodity associations and asking their assistance in assessing and reporting on the state of Y2K readiness of their members, particularly medium and small businesses.

I believe that industry groups are increasingly aware that they need to provide information to the public about their efforts to correct the Year 2000 problem. They have perhaps the greatest interest in ensuring that the public does not disrupt the normal demand and supply for food by unnecessarily stockpiling, which would disrupt just-in-time inventory systems.

Given our confidence that the major players in the food supply are adequately addressing the issue, we will encourage these producers, grocers, wholesalers, and retailers to issue public statements verifying that they will be able to continue operations in spite of the Year 2000 problem. If the major players, who in many cases are competitors, could be persuaded to issue a joint statement, that would be even better.

With respect to speeding up remediation, we are focusing our efforts on smaller and medium-sized companies. We must encourage companies involved in the food chain to do what they can to ensure that their own systems are prepared so that their businesses and customers do not suffer even temporary difficulties. Companies should be encouraged to seek immediate assistance if they know now that their operations will be adversely affected and they don't have the ability to address the problem. This information is also vital so that, if any region, locality, or even a particular food appears to be vulnerable to potential disruptions, contingency plans can be focused to address the particular problems. Having some idea if, or where, problems are likely to occur due to Y2K would be invaluable information, and help us direct resources to the areas where they will be needed most.

USDA is working with the Small Business Administration (SBA), the Manufacturing Extension Partnership (MEP) of the National Institute of Standards and Technology (NIST), and others, to provide technical assistance to help small and medium-sized agribusinesses and others involved in food and fiber become Y2K compliant. Our plan is to work in partnership with the Cooperative Extension System, the Manufacturing Extension Partnership, and SBA's Small Business Development Centers to train extension agents located in counties across the country to conduct risk assessment and remediation training for small business owners in rural areas.

FOOD AND NUTRITION PROGRAMS ARE A PRIORITY FOR USDA

I also want to mention briefly the state of affairs with respect to the food and nutrition programs which are also vital to the availability of food for millions of Americans, especially those who are neediest. The Food and Nutrition Service (FNS) has been working to remediate the mission critical systems that support these nutrition programs. With respect to FNS' own mission critical Internal systems, all are expected to be fully compliant by the government-wide deadline of March 31, 1999.

FNS is also tracking and reporting Year 2000 progress from our 50 state partners, Guam, Virgin Islands, Puerto Rico and the District of Columbia for the Food Stamp Program (FSP) and the Supplemental Program for Women, Infants, and Children (WIC). (Subsequent references to the states include these three territories and the District of Columbia). States must certify to FNS that they are Year 2000 compliant in three areas—software, hardware, and telecommunications. States reporting that they will not be compliant by March 31, 1999 must certify in writing that they have a working contingency plan in place that will assure the delivery of benefits to FSP and/or WIC recipients. FNS will be closely monitoring those states reporting Year 2000 compliance after March 31, 1999. FNS will offer technical assistance to those states requiring help and FNS will follow up with onsite reviews for those states reporting that they will not be compliant until after March 31, 1999.

As of the December 1998 report for the state Food Stamp Program, thirteen statement have reported that their systems are already compliant in all respects. Five of the thirteen states have already sent letters certifying that they are Year 2000 compliant. Fifteen additional states have reported that they will be compliant by March 31, 1999. Thirteen states have reported that they will be compliant between the April 1999 and June 1999 period and thirteen states have reported that they will be compliant during the last 6 months of 1999.

Twenty two states have reported that their WIC systems are Year 2000 compliant. ENS has received certification letters from twelve of these states. Fourteen additional states have reported that they will be compliant by March 31, 1999. Six additional states have reported that they will be compliant between the April 1999 and June 1999 period. Twelve additional states have reported that they will be compliant during the last 6 months of 1999. All states are reporting that their WIC systems will be Year 2000 compliant by December 31, 1999.

USDA WILL HAVE CONTINGENCY PLANS FOR FOOD WHERE NECESSARY

As I stated earlier, it is most likely that any effects from the Year 2000 problem will be minor, and localized by region or particular food product. However, in the free market system, commercial competition in the vast majority of communities across this country will ensure that food remains available even if some companies experience Y2K-related problems.

Also, in the unlikely event that there are food shortages in any area, USDA has standing plans to address intermittent food disruptions which occur during any emergency. USDA is working with the Federal Emergency Management Agency (FEMA) and the Emergency Services Working Group of the President's Council on Year 2000 Conversion to adapt our plans for any Year 2000 related contingencies.

OUTREACH

Mr. Chairman, overall USDA is very encouraged by the analysis of the Year 2000 readiness within the food supply. USDA, working with industry partners, is committed to providing the public with reliable information about the unlikely potential for serious interruptions in the U.S. food supply. The American people need to know that safe, affordable food will be available on, before, and after January 1, 2000.

In winter months, it's just good sense to keep bottled water, some canned food, and candles and batteries on hand because Mother Nature, not the Y2K bug, can cause power outages or make a trip to the grocery store more difficult. However, unless consumers have confidence that food will be available on, before, and after January 1, 2000, there is the potential for consumers to cause local shortages through hoarding. Needless and frivolous stockpiling of supplies can create isolated shortages, and we will embark on a campaign to educate consumers that this will not be necessary.

The Food Supply Working Group will continue to encourage the food industry sector to report on Year 2000 readiness and to reassure the American public of the readiness of the food supply sector to prevent panic or hoarding of food supplies. Each of the studies I have mentioned will be posted on USDA's web site at www.usda.gov. The working group also plans to update these studies periodically, with the next update to be ready at the end of March.

USDA agencies participating in the Food Supply Working Group as well as fourteen other working groups established by the President's Council on Year 2000 Conversion, (including education, finance, health care, small business, building operations, housing, and transportation, energy and emergency services) are taking steps to raise the awareness level of their customers and constituents.

USDA officials are speaking with constituent groups about the Y2Kproblem at every opportunity. During National Y2K Action Week, the Cooperative State Research Education and Extension Service distributed 3,100 Year 2000 toolkits to county extension offices. The kits included a media plan, public service announcements, brochures, four fact sheets, a poster, talking points, and frequently asked questions on Year 2000 to equip extension offices with information they need to raise the awareness of rural America about this issue. CSREES has printed and is distributing over 160,000 Year 2000 pamphlets to county extension offices.

The Farm Service Agency (FSA) is informing farmers and ranchers through its newsletters, which are distributed to fanners through FSA offices across the country. FSA is also developing public service announcements to be aired on television and radio, referring farmers and ranchers to USDA's web site for additional information.

The Agricultural Marketing Service, in conjunction with the National Finance Center (NFC), is disseminating Year 2000 informational brochures to over 40,000

AMS customers. Other mailings, with Year 2000 updates, will be provided to customers quarterly. Many of these customers include international organizations.

The Food Safety and Inspection Service (FSIS) has sent letters to all plant managers in industries it regulates, and has appointed a Year 2000 coordinator to provide companies information they need to implement Year 2000 plans that are HACCP compliant.

Finally, USDA's National Finance Center continues to be a leader in Year 2000 preparedness, having completed in December 1998 remediation of the systems that process payroll for approximately 43 5,000 Federal employees, roughly 20 percent of the Federal civilian workforce, and that service more than 2.3 million Federal employees with the Thrift Savings Plan System.

CONCLUSION

Mr. Chairman, that concludes my testimony. Thank you again for inviting me to speak. I will be glad to answer any questions you and other members of the Committee might have.

PREPARED STATEMENT OF HONORABLE RICHARD G. LUGAR

Mr. Chairman, thank you for the opportunity to appear before your committee to examine the readiness of the food supply chain to manage the year 2000 computer problem. I would also like to thank you for your leadership in year 2000 issue generally and for holding this hearing in particular.

The food industry is vast and complex. We are fortunate to be able to choose from among so many food products. In order to make these choices available, intricate production, processing, packaging, storage and transportation systems must function without flaws. Agricultural producers and food suppliers, like many other businesses, are heavily dependent on computerized processing and information exchange. Our modern and efficient food industry, from irrigation and milking equipment to food processing assembly lines and refrigeration, faces potential year 2000 problems. The food supply chain's year 2000 readiness is crucial to the availability of food and to the nation's economy.

The agricultural sector contributes thirteen percent to our gross domestic product. Even though the U. S. has a trade deficit of two hundred twelve billion dollars, we have an agricultural trade surplus of sixteen billion dollars.

The Committee on Agriculture, which I am privileged to chair, held 2 year 2000 hearings last year. At that time, little was known about the potential impact of the year 2000 problem on the food supply. At the July 22nd hearing, Dr. Ed Yardeni, a respected economist and year 2000 problem observer, said, "I am concerned that no one on this planet is assessing the potential negative impact of Y2K on the global food supply."

Your letter of invitation indicated the purpose of this hearing was to examine how the food industry is responding to the year 2000 challenge from "farm to fork." When the President's Council on Year 2000 Conversion realized the daunting task of assessing the readiness of the food chain, the Food Supply Working Group was created. This group, led by officials of the Department of Agriculture, is charged with the responsibility of determining the year 2000 readiness of the U.S. food industry and how the millennium bug problem might affect foreign countries as markets for American agricultural products and as suppliers of food products to our nation. I commend them for their work.

I am confident that Secretary Glickman will testify to the findings of the assessment undertaken by the Food Supply Working Group, but I want to make a few observations. The group concluded, "The state of readiness within the food industry is encouraging. An interruption of the food supply so severe as to threaten the well-being and basic comfort of the American public is unlikely." This is welcome news, but I would caution government officials to continue to monitor progress diligently and address problems promptly. In the past, the tolerance of the American public for systematic disruptions has been very low. This situation will be no different.

The group's initial assessment also found that ". . . the key markets of U.S. food will likely have a relatively low risk of year 2000 disruptions to their import, processing, distribution and retail chains." Earlier this month, I introduced S. 101, the United States Agricultural Trade Act of 1999. The purpose of this legislation is to open foreign markets for America's agricultural exports and to raise the profile of agriculture in our nation's trade agenda. One of the most important things we can give farmers is the ability to export their products abroad. If the ability to export is affected adversely by the year 2000 problem, all involved will feel it. Additionally, those countries that rely upon our humanitarian food donations will suffer as well.

In a report commissioned by the Food Supply Working Group, the Gartner Group concluded, "Perhaps the greatest threat to the food supply industry comes from the consumers themselves. Needless and frivolous stockpiling of supplies can create isolated industry shortages." The "just in time" inventory control strategy employed by the food industry could be severely disrupted by stockpiling of food. The Gartner Group recommended that USDA embark upon a program of information dissemination to inform the public about the unlikely potential for serious interruptions in the U.S. food supply.

Mr. Chairman, while the Food Supply Working Group is responsible for assessing year 2000 readiness, the ultimate responsibility for attaining year 2000 readiness rests with the food industry. Open communication and cooperation are crucial to the success of this undertaking. It has been noted that the larger food companies, as is the case with most industries, are more prepared and better financed to address the year 2000 problem. Some have suggested that those companies should share their strategies and methodologies with smaller firms in an attempt to ensure that all are successful. One kink in the chain could affect the whole system. I am pleased to see witnesses from the food industry who were willing to come here today to share their successes.

I am aware that many corporations, in and out of the food supply chain, have been reticent to disclose their year 2000 readiness out of fear of the potential for litigation. In that regard, I applaud you, Mr. Chairman and the cosponsors of the Year 2000 Information Disclosure Act of 1998. This law will do much to ease the fears of liability lawsuits and promote the flow of year 2000 readiness throughout the private sector.

Mr. Chairman, I will soon introduce the USDA Information Technology Reform and Year–2000 Compliance Act of 1999. This legislation is similar to a bill that passed the Senate last year. It centralizes all year 2000 computer conversion activities within the Office of the Chief Information Officer of USDA in an effort to ensure that all critical computer functions at the department are operational on January 1, 2000. I commend this legislation to the attention of members of this committee:

On May 14th of last year, USDA testified before the Committee on Agriculture that forty percent of its mission critical systems were already year 2000 compliant. The department's January assessment shows that seventy-one percent of the mission critical systems are now compliant. The compliance percentage is improving but this is misleading. In May 1998, USDA was tracking 1,080 mission critical systems. Today, the department is tracking 3 54 mission critical systems. I recognize that the Office of Management and Budget revised the criteria for reporting mission critical systems. Further, as USDA becomes more sophisticated in its approach to the problem, there may be changes to the number of systems being tracked . I am concerned, however, that some systems removed from the mission critical category might be vital to USDA's operations and may impair the department's ability to serve the country.

While the number of USDA mission critical systems being tracked is decreasing, the cost of compliance is increasing. In May 1998, USDA's Chief Information Officer testified the department anticipated spending a total of $120 million to address the year 2000 problem. Six months later, the OMB reported that USDA spending would increase to over $160 million. While the supplemental appropriations dedicated to the year 2000 issue that was enacted last year will be helpful, additional cost overruns bear careful scrutiny.

Last summer, I recommended to the Secretary that USDA post a website available to the public that shows the department's monthly progress in fixing the year 2000 problem in its "priority" mission critical systems. I am troubled by the possiblity that, in an effort to fix everything, some systems having the greatest impact on USDA's ability to deliver services might be missed. The systems included in the "top priority" category are those with economic repercussions on agricultural markets or trade, impacts on individual financial security and impacts on health and safety. AS of January 29?, USDA reports that sixty-two percent of the "priority" mission critical systems are compliant. The number of" top priority" mission critical systems has remained stable since the website was created so this poses no particular concern for me at. this time However the deadline imposed by the Office of Management and Budget for implementation of all mission critical systems, not merely those in USDA's "top priority" category, is March. In the event it appears that some mission critical systems will not be ready in time, I will want to know what contingency or triage plans are underway to ensure that the department can successfully meet its responsibility. The universal resource locator (URL) for this website is http://www/ocio.usda.gov/y2k/critical—syst/priority/htm. The chairman and members of this committee, as will members of the Agriculture Committee, want to observe progress in this effort.

I am encouraged by USDA's progress toward year 2000 compliance. Secretary Glickman's personal commitment and attention to this endeavor have been important. I urge him to continue to monitor this matter closely to ensure that USDA's computers function properly to serve the American public dependent on information and programs of the department. I also want to commend the work of the Commodity Futures Trading Commission, the commodity exchanges they regulate, and the Warm Credit Administration and the farm credit system banks for their attention to this most important project.

I want to thank the committee for inviting me to present this statement. I am confident that if we, the public and private sector, work together we will succeed in continuing to assure an adequate and reliable food supply in spite of the year 2000 challenge. I am happy to answer any questions you might have.

PREPARED STATEMENT OF SENATOR GORDON SMITH

Thank you Mr. Chairman. I appreciate the opportunity to work with you in addressing the important Y2K issues facing the food sector.

I would like to thank all the distinguished witnesses before us today for taking the time to testify, including our distinguished Secretary of Agriculture and the Chairman of the Senate Agriculture Committee. I am also very pleased to see that many of our major national food producers and distributors are participating in this important hearing.

In my former life, before serving as a U.S. Senator, I was a frozen food processor. I can assure you that any interruption within the farm-to-fork chain would result in not only a direct loss to food suppliers, but would also cause food shortages and price increases nationwide. As with many businesses, food suppliers are increasingly dependent on computerized processing and information exchange.

For example, farmers and ranchers use electronically equipped irrigation systems, animal systems and transport systems. Food processors rely on automated systems that help prepare and package consumer-ready products. Distributors, wholesalers, and retailers depend on computer- driven equipment to transport, deliver, store, display, and sell food products. Inventory and accounting systems, harvesting equipment, grain elevators, refrigeration and security systems also depend on the computations of computers.

And with a finite supply of food, it is my hope that this hearing will shed light on not only the major food producers' Y2K contingency plans, but also the small farmers' readiness. We need to assure America that we will continue to be able to provide the best and freshest food products to the dinner table on January 1, 2000.

I look forward to learning more about the specific Y2K challenges facing our entire food sector.

Thank you Mr. Chairman.

PREPARED STATEMENT OF TYRONE K. THAYER

Mister Chairman and Members of the Committee:

Good morning. My name is Tyrone Thayer . I am a corporate vice president for Cargill, Incorporated and the worldwide manager for Cargill Foods, our business unit that brings together the company's product lines that serve the food service, food processing, bakery and retail grocery industries. With me today is Gary McGee, Cargill's Worldwide Year 2000 Project Office manager.

Thank you for inviting Cargill to appear before you today. The work this committee is doing is very important to a smooth transition for the United States into the next millennium. First, I will give you a brief description of Cargill. I will describe the structure we are using to address the Year 2000 technology problem, give a brief description of our activities and the status of our efforts. I would also like to suggest some particular areas of focus for this Committee.

OVERVIEW

Cargill is an international marketer, processor and distributor of agricultural and food products. Our headquarters are in Minneapolis, Minnesota, but we employ about 80,000 people in plants and facilities in 65 countries and have business activities in 130 more countries. Cargill processes more than 200 food products and food ingredients such as salt, cocoa, vegetable oils, flour, malt, juices, corn-based sweeteners, starches and citric acid. We are also a leading processor of beef, pork and poultry.

We obtain most of our raw materials for these products from farm and livestock producers who are both our suppliers and our customers. We develop new fertilizer varieties that farmers can use to grow their crops. And we are a leading supplier of animal feed to livestock producers.

We transport our products through the use of ocean freight, inland barge, rail and truck transportation services.

Cargill expends more than $385 million in information technology services (excluding voice communications) every year. Of that $80–$100 million is capital spending. We have 27,000 connected desktops with complex business application, infrastructure and corporate systems.

HOW DOES THE YEAR 2000 TECHNOLOGY PROBLEM IMPACT CARGILL?

In Cargill's plants, computers and microchips are used to control the temperature of products as they are being processed, to analyze product samples and to open and close valves as product flows from one process to another. These systems also are found in weigh scales and time clocks,—equipment that every food processor uses in day-to-day operations.

Our business systems also are affected. Throughout Cargill, we monitor our inventories and manage our day-to-day business transactions such as those with the Chicago Board of Trade. Invoicing and payroll systems already have been updated so that customers get billed in a timely manner and suppliers get paid.

Cargill's focus in dealing with the Y2K situation has been the need to avoid any disruption of the supply chain—most of which is external and out of Cargill's, or any company's, direct control. Our concern is in four areas:

- utilities,
- transportation,
- telecommunications and
- financial.

If these areas do not function, no business can either. The loss of basic utilities—electric, water, sewer and natural gas—would cause plants to shut down. With few exceptions, Cargill's facilities do not have back-up generators, and we have determined it would not be cost-effective for us to add that capability.

CARGILL'S APPROACH TO THE Y2K PROBLEM

Our approach to Y2K began in June 1996 with an assessment of all our business systems. We concluded that Cargill needed to undertake a Year 2000 Project, and Ernie Micek, Cargill's President and Chairman of the Board, approved setting up a Year 2000 Project Office. (See Attachment 1.) Our goal is to implement reasonable procedures in order to eliminate as much risk as reasonably possible to Cargill, our customers and suppliers. The Project Office provides overall direction and consistency in approach, suggests policy and submits regular progress reports to senior management. Two corporate executives were appointed as sponsors to oversee the entire project. They provide quarterly updates to Cargill's Board of Directors. Division Presidents are responsible for making sure their equipment and systems are ready according to a predetermined schedule.

Enclosed with this testimony as Attachment 2 is a set of overheads that review in detail Cargill's Year 2000 Project. I will comment here on just some aspects of our effort.

When evaluating our plant and business systems, we focused on systems and equipment with imbedded computer chips or software that could cause either a slowdown, a shutdown, a safety problem or an environmental problem. We are focusing on business and plant systems and infrastructure. We are working with our customers and key suppliers. And we are doing contingency planning. Finally, we are hiring external auditors to conduct random checks of business and plant systems.

Cargill's Y2K international operation is organized very much like our domestic organization. Every division has a plan of action with a predetermined timetable.

CURRENT STATUS OF OUR EFFORTS

An overview of the actions we have taken, as well as a copy of a brochure we provide to customers and suppliers is attached at Tab 3 of this submission. In the United States, 65 percent of our key plants and 70 percent of our business systems have been updated, tested, installed and are running productively. The remaining systems are being tested and corrected. These systems will take into account the date change, but obviously will not be able to compensate for impacts caused by external factors beyond our control.

We plan to finish our remaining projects and complete our contingency planning. We will have people at our key plants and administrative offices on Dec. 31, 1999 to help ensure a smooth transition. We are confident that our worldwide business and plant systems will be in good working order by the Year 2000.

PLANS GOING FORWARD

News reports suggest that many countries have only recently started their Y2K efforts. While we can not predict exactly how other nations' Y2K planning will impact Cargill's food businesses, we expect imports and exports may be affected in some way. With this in mind, we are putting together a contingency plan that includes investigating transportation alternatives if railways or trucking companies are unable to deliver or ship product. Consideration is also being given to finding back-up suppliers of energy and products we use in our day-to-day business.

CONCLUSION

I trust I have provided you with some insight as to how one major food supplier is handling the Y2K situation. I'm confident that Cargill will be ready to meet the challenges that lie ahead.

Again, we compliment your work in to addressing the Y2K issue. We believe the American public can best be served if the committee directs its attention to the four areas I mentioned earlier: utilities, transportation, telecommunications and finance. We would encourage you to continue, and even increase, communications with the public about the work and progress of this Committee. We look forward to following updates on your progress. Thank you, and I look forward to responding to your questions.

DATE: Jan. 22, 1997

TO: Operating Comm. & Divisional Managers

FROM: Ernie Micek

SUBJECT: Year 2000 Problem

With the year 2000 less than 3 years away, every Cargill division must make sure that its office and plant computer systems are set to make the transition to the next millennium. As you may know, historically many computer programs used just two digits to record the year (for example "97" rather than " 1997") This causes programs that perform arithmetic operations, comparisons or sorting of date fields, to yield incorrect results. The dilemma—known as the "Year 2000 problem"—is expected to cost the business world perhaps as much as $500 billion to correct.

Some examples of the kinds of problems we could experience at Cargill, unless we take action, are: interruption of plant operations because a control system would not accept "00" as a valid date; incorrect position reports because the position dates were sorted in the wrong order; or inaccurate financial statements because interest was calculated incorrectly by systems that feed the new JDE general ledger system. I am told that the "Year 2000 problem" has already caused some system outages in our office systems.

Fortunately, many of the potential problems have been envisioned by Cargill during the recent installation of the Core Process Redesign's new accounting system, as well as the introduction of the Global Office, Lynx, COBRA and other computer systems. However, older systems, including plant operating systems, may be at risk. I/T estimates it will cost Cargill about $21 million to complete the overhaul of our office systems to remedy the year 2000 problem. The cost to modify our plant systems, which is not included in the I/T estimate, are being evaluated.

To ensure the transition to the year 2000 is made with no business interruptions, I want to make sure that each of you understands, that **you are personally responsible** to have your division ready. I urge each of you to:

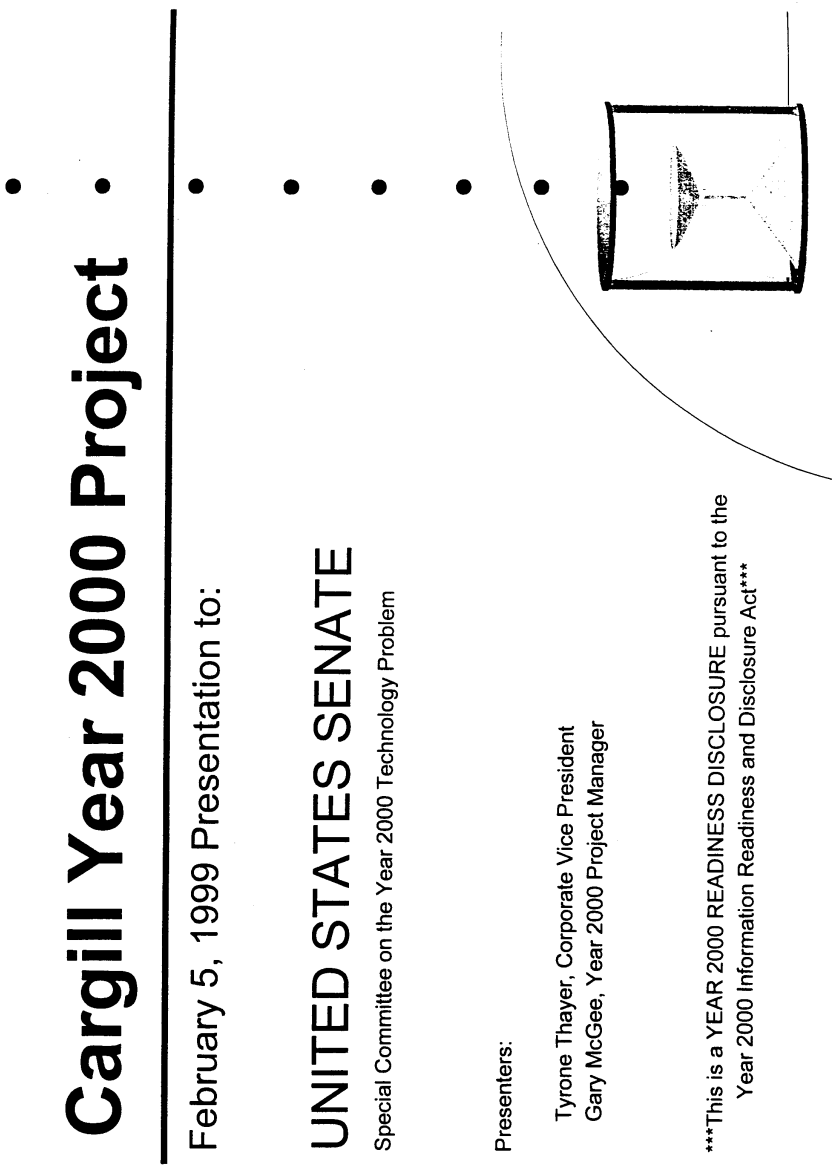
* Make sure detailed plans to correct the most critical systems to your business are in place by **May 31, 1997,** in order to ensure your division is "year-2000-ready" by **Dec. 31, 1998**.

* Forward all customer and supplier inquiries about the "Year 2000 problem" to the Year 2000 Project Office so a unified response can be delivered. The project office will coordinate this effort through Ty Thayer.

* Make sure target dates are met. Your I/T and plant systems groups will be asked to report progress monthly. A quarterly report will be sent to senior management. These reports are scheduled to begin in **September 1997**.

The Year 2000 Project Office, mentioned above, has been established to coordinate this effort worldwide. If you have further questions, contact Gary McGee, Year 2000 Project Manager, @ MTKA, phone 612–742–6821, fax 612–742–1015. Thanks in advance to each you for making sure this important project is carried out smoothly.

Emie Micek



Cargill at a Glance

- International marketer, processor and distributor of agricultural, food, financial and industrial products
- Privately held company
- Founded in 1865
- 80,600 employees in more than 1,000 locations
- Located in 65 countries with business activities in 130 more countries

This is a YEAR 2000 READINESS DISCLOSURE pursuant to the Year 2000 Information Readiness and Disclosure Act

Cargill at a Glance

Commodity Trading & Processing

Biodegradable Plastic
Cattle Feeding
Chocolate
Cocoa
Coffee
Contract Hog Production
Corn Milling Products
Egg Products
Energy
Fats and Oils
Fertilizer Production and Distribution
Flour and Rice Milling
Freight Operations
Grain
Hazel Nuts
Hybrid Seeds
Juices
Malt
Meat (Beef, Pork and Poultry)
Rubber
Salt
Sugar

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Cargill at a Glance

Industrial

Steel Manufacturing

Scrap Recycling

Steel Processing

Global Steel

Merchandising

Financial

Global Financial

Markets Trading

Money Market and Foreign Exchange

Trading

Value Investing

Trade and Structured Finance

Risk Management

Global Financial

Markets Trading

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Cargill Year 2000 Overview

- Background
- Current Status

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Background

Cargill I/T Profile

- 2,000 employees
- $385 million expense (excluding voice)
- $80-100 million annual capital spending
- 27,000 connected desktops
- Product line oriented for business applications
- Corporate oriented for infrastructure and corporate systems

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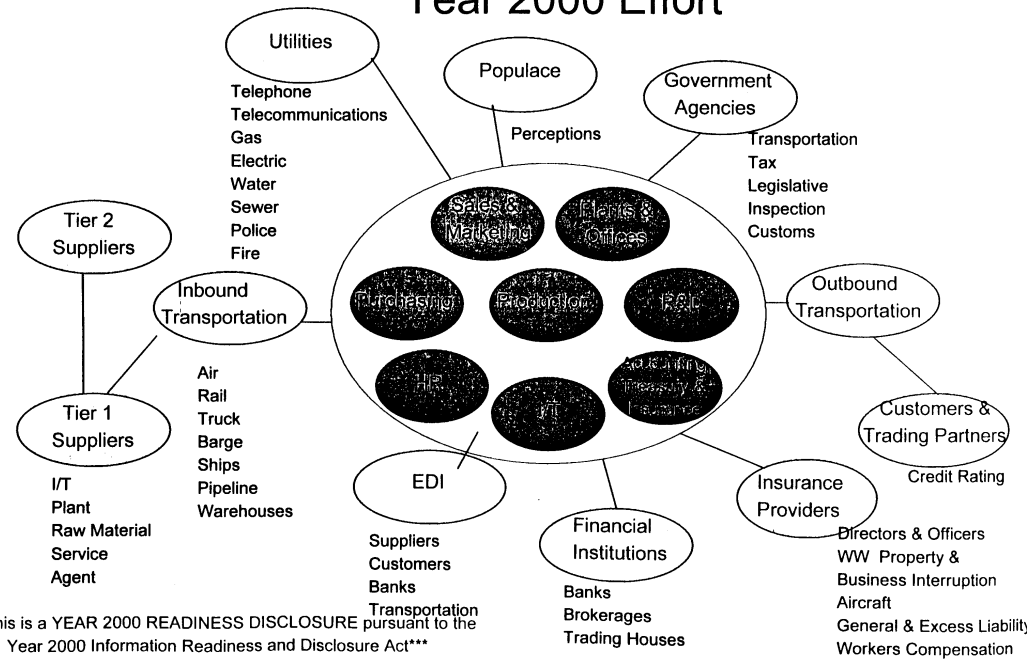
Background
Examples of What Can Be Affected

Year 2000 Effort



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Background

Year 2000 Project Scope

- Business Systems
- Plant Systems
- Infrastructure
- Legal Ramifications
- Acquisitions and Divestitures
- Cargill Customers
- Key Cargill Suppliers
- Business Management Reporting
- Contingency Planning

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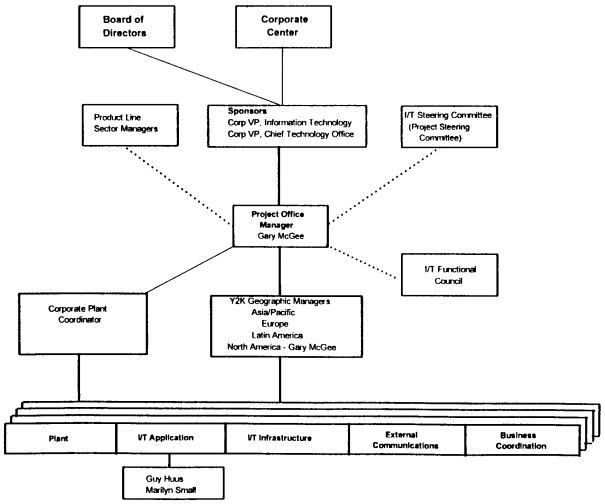
Background

Year 2000 Project Organzation



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Background

The Size of Our Business Systems Effort

- Business Systems
  - 1 Corp Coordinator
  - 3 Geo Coordinators
  - 150 Div Coordinators
  - 412 High Priority Projects
  - 284 I/T Suppliers
  - 689 I/T Products
- Infrastructure
  - 27,000 Desktops
  - 250 AS-400's
  - 1,200 Servers
  - 1,000 PBX's
- Customer/Supplier
  - 1,737 Customer Inq.
  - 2,244 Supplier Contacts*
  - 3,966 All Suppliers

* I/T and Plant Hardware/Software not included

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Background

Project Phases - Business Systems & Infrastructure

PHASE	DELIVERABLE
Awareness	Customer letters / presentations
Assessment	Inventory / Preliminary estimate
Strategy	Prioritize / Risk Assessment
	Detail Project Plan / estimates
	Contingency Plan
	Testing Plan
Conversion	Converted Code, Data Interfaces,
	File Conversion (Current & History)
Testing	Verified System (current, future)
Installation	Productive System
	Converted Files

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Background

Testing Phase

- Infrastructure
  - Servers / Mainframe and Software
  - Network (Data and Voice)
  - P.C.'s
- Business Testing
  - Enterprise
    - EDI
    - General Ledger Systems
  - Divisional
  - Personal Desktop Systems

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Background

Testing Phase

- Plant Systems
  - Process Control
  - Historian Software
  - Lab Systems
- Building Infrastructure

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Background

The Size of Our Plant Effort

- Plant Systems
  - 1 Corp Coordinator
  - 45 Div/Geo Coordinators
  - 930 Plants/Sites (including 4 aircraft and 10 vessels)
  - 749 Product Vendors
  - 2367 Products used at one or more plants

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Background

Completed Activities - Plants

- Late 1996 - Initial Plans Formulated
- Mid 1997 - Pilot Project With Fluor-Daniel
- Oct 1997 - Y2K Assistance Kits Sent Out
- Dec 1997 - Y2K Web Site Established
- July 1998 - Tava/Vendor Database Set Up

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Year 2000 Information Readiness and Disclosure Act***

Status

Y2K Plant - 1999 Work Plan

Contingency
Plant Production
Contingency Plan
Goal: production
as usual
Mar 31, 1999

2nd Review
Doublecheck Inventory
Revalidate Assessment
New Plan if needed
May 31, 1999

Independent Audits of several plants will be done to validate our methods

Testing
Test Critical Systems
to safeguard safety,
environment and
production
Aug 31, 1999

3rd Review
Triplecheck Inventory
Revalidate Assessment
New Plan if needed
Sep 30, 1999

Jan 1, 2000
Plant Systems ready
Contingency Plan in place
Action Teams assembled

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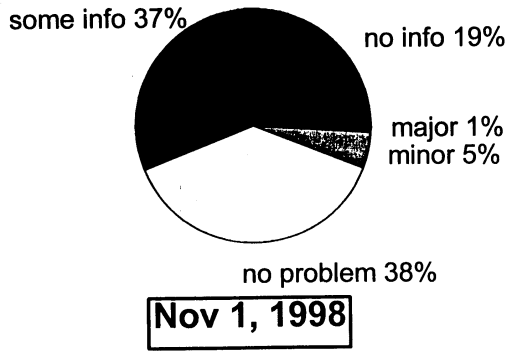
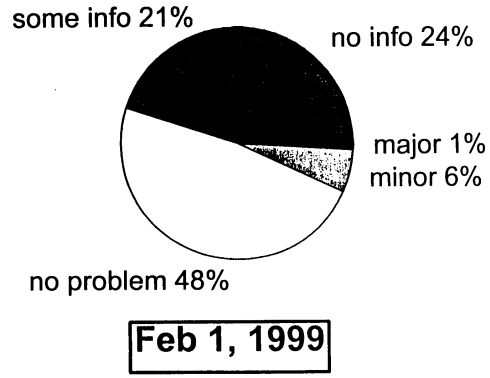
Status

Vendors and Products

Computer Based Products Found In Our Plants





Status of 2564 Products from 805 Vendors

197 products added in last 3 months, with research backlog reduced by 11%

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Status

Contingency Planning Guidelines

- Be practical, cost effective and appropriate to the organization
  - Plan for the most likely events
  - Have enough detail to quickly find a solution, rather than attempting to document all solutions
- Emphasize circumvention or preventive actions
- Quickly correct problems that occur
- Return to normal operations as soon as possible

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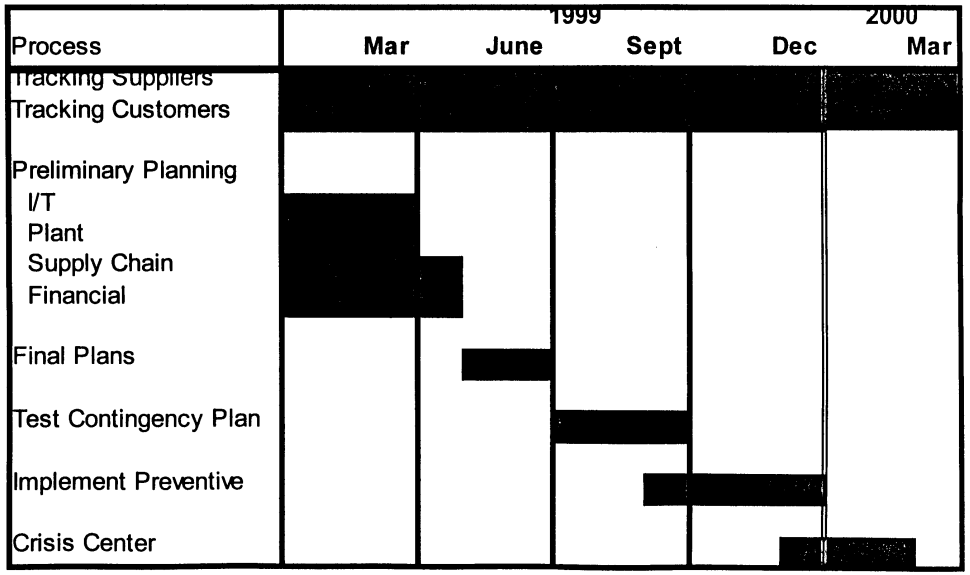
Status

Contingency Planning Overview



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Status

Audit

- Controller's Role
- Internal Audit Program
- External Financial Auditor
- Law Department Review
- Customer Review
- Corporate Review of Plant Plans / Actions
- Management Site Visits

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Year 2000 Information Readiness and Disclosure Act***

Status

As of December 1998
Cargill World Wide

	Total Number	% Done	Target Remaining
Business Systems / Infrastructure			May 1999
USA	148	70%	
Other Countries	265	85%	
Total	413	80%	
Key Plants			June 1999
USA	44	65%	
Other Countries	45	65%	
Total	89	65%	
Non-Key Plants			June 1999
USA	465	20%	
Other Countries	388	10%	
Total	853	15%	

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Conclusion

- Cargill's Y2K project is well under way and making good progress.
- Board of Directors and top level management are supportive.
- Managed as a business problem so Cargill can continue to provide quality customer service.
- Processes are in place to monitor progress and take corrective action as required.
- External is out of our control.

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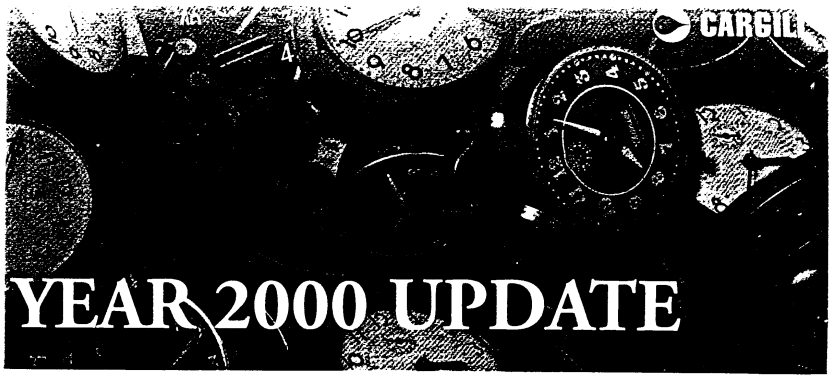
CARGILL, INCORPORATED
RESPONSE TO THE YEAR 2000
TECHNOLOGY PROBLEM
SYNOPSIS

Date	Action
May 1991	Began an aggressive systems replacement program. Year 2000 compliance was an identified goal. As of today, this program is ongoing.
September 1996	High level assessment of Cargill's business systems completed. Noted fewer changes required than industry statistics would have suggested.
March 1997	Began process of surveying Cargill's key suppliers. This is expected to be a continual process through the millennium.
August 1997	Year 2000 plans and budgets completed for 85 percent of Cargill's businesses. Year 2000 Project Office audit completed by Cargill's external auditors.
October 1997	We completed pilots at three Cargill plants and began general plant assessment.
March 1998	Completed the plans and budgets for the remaining Cargill businesses. Completed EDI Year 2000 plan which includes support for both the old and new ANSI formats. Renovation and testing of Cargill systems is well underway.
August 1998	Annual financial audit, which included a review of Cargill's Year 2000 process, was completed by our external auditors.
October 1998	Assessment has been completed at 85 percent of Cargill's plants. Cargill's contingency planning process commenced.
December 1998	Cargill's goal was to have 80 percent of high risk business systems tested and running productively. The majority of our key plants have installed changes or have plans to make changes at the plant's next annual maintenance shutdown which generally occurs over the summer.
May 1999	Cargill's goal is to have all remaining high risk business systems tested and running productively with no or minimal Year 2000 related issues.
June 1999	Cargill's goal is to have all remaining high risk plant systems tested and running productively with no or minimal Year 2000 related issues.



Cargill's Y2K Strategy

Cargill is working hard to minimize the impact Year 2000 problems may have on our internal operations as well as on the operations of our valued customers and suppliers. The company established what is known as the Year 2000 Worldwide Project Office after we completed a Y2K comprehensive assessment of our operations and processes. The Office provides overall direction and consistency in our approach and submits regular progress reports to senior management.

Who is involved?

The project office reports to *two executive sponsors:* The Corporate Vice President of Information Technology, and the Corporate Vice President and Chief Technology Officer. They have executive responsibility to ensure that Cargill's Y2K efforts are completed successfully.

Cargill's Board of Directors also is involved in the project's success. They receive quarterly updates from the executive sponsors and provide input as needed.

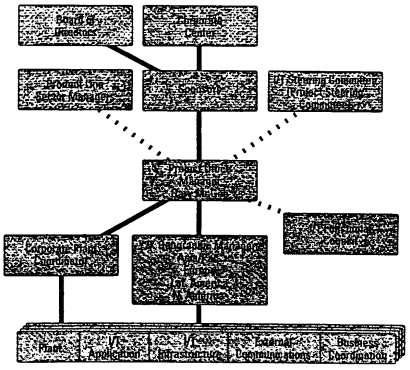
Business unit presidents are responsible to see that their product line has their IT systems and plant systems ready according to a predetermined schedule.

The company has developed an *internal review process* to help ensure that everything is going according to plan. Business unit controllers are responsible to ensure that their business unit is complying with corporate Y2K directives. The internal audit department verifies the status of certain projects. Our external financial auditors review our Y2K initiative on an annual basis.

Key customers have visited our facilities to provide yet another view of our progress.

For more information, please visit our web site at www.cargill.com. It provides the current status of our different operations and processes. Or, you can contact Gary McGee, Project Office Manager, at (612) 984-8011 or gary-mcgee@cargill.com.

Year 2000 Project Organization



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How will Y2K affect Cargill's processing operations?

The biggest impact lies in a potential disruption of the supply chain. We intend to minimize any difficulties with our internal operations caused by the "millennium bug"; unfortunately, most potential problems are external and out of our direct control. These problems could take place anywhere along the supply chain. Will our suppliers be able to make products? Will the trains and trucks be on time to deliver or ship product? Will the banks be open for business? Will the utilities, particularly the electrical and communications utilities, be able to deliver their services?

What is Cargill doing to address the potential problems?

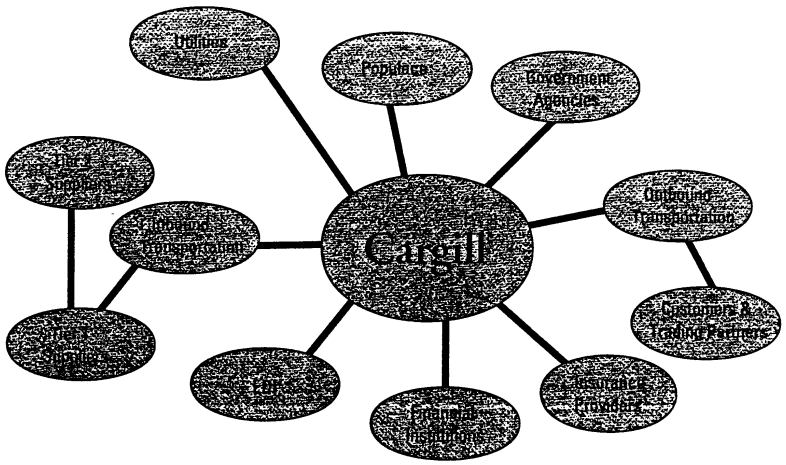
We started with our infrastructure — the hardware and software that are core to running the company. We rely on our vendors to provide us with the appropriate hardware and systems software changes or upgrades to make our mainframes, servers and desktop computers work correctly in the Year 2000.

All of our business systems — payables and receivables, position reporting and contract processing, for example — were analyzed to determine the impact on the business and prioritized according to importance.

Our plants were scrutinized to determine where we have imbedded computer chips or software that could cause either a slowdown, a shutdown, a safety problem or an environmental problem. We are making the needed adjustments.

Because we're dependent on the operations of suppliers and customers, we can't guarantee that every Cargill process or operation will be Y2K ready. However, we have an ongoing process to track our suppliers and customers as they work towards their Year 2000 goals.

What Can Be Affected



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What is Y2K ?

Most know what Y2K is all about, but for those who don't, here it is in a nutshell: The Year 2000 problem, also known as the "millennium bug" or "Y2K," is the result of computers and applications that use only the last two digits of the year instead of all four digits (such as "98" rather than "1998"). The problem affects more than computers; virtually any device using embedded microchips are vulnerable provided they use two-digit dates for calculations.

Many different business programs such as those used for billing and ordering can be affected — if they haven't already. A program that automatically determines interest on late payments, for example, can calculate late interest all the way back to 1900. That's because "00" in the year field could be read as 1900 instead of 2000. Many computers and microchips start to malfunction because they simply weren't programmed to recognize "00" as the year 2000.

Why did this happen?

When most of the programs with two digit dates were written, the year 2000 was a long way off. At that time it was more efficient to use a two-digit variable date because memory and disk space were limited and very expensive. Consequently, two digit dates became a default standard in most programming applications.

Few people back then realized the tremendous impact computers and particularly devices with embedded microchips would have on everything we do. Today, we use computers and microchips in just about every facet of life: controlling the climate in homes and businesses, our automobiles, monitoring airplane traffic, transferring funds across the country, issuing paychecks — the list could go on forever.

Is the problem real?

Yes, the "millennium bug" is real. Many governments and industries throughout the world are taking steps to deal with the problem. The difficult part is predicting where the problems will occur and how severe the consequences will be. Almost every company will have to make some changes to either their business systems or their plant processing systems. Assuming companies take the issues seriously and correct their systems, the problems that do occur should be manageable.

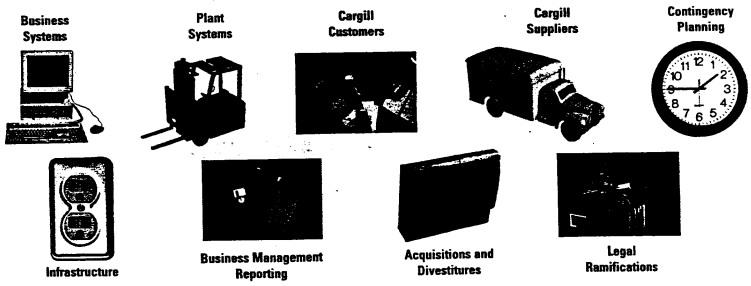
Does Cargill have some "millennium bugs"?

Yes, and they are being addressed. For example, computers and electronic systems are used in our plants to control the temperature of products as they are being processed, to analyze product samples and to open and close valves. These systems are being scrutinized and efforts are being made to minimize any year 2000 related impacts that these systems may have on Cargill as well as our valued business partners.

Plants aren't the only Cargill facilities that rely on computers and computer chips. Throughout Cargill, many of our telephone systems need to be replaced or upgraded before the year 2000. Invoicing and payroll systems also must be updated. Pension calculation procedures need to be modified, to mention just a few.

Personal computer applications probably are more up to date regarding Y2K than applications for mainframe systems, but everything is being checked to ensure that processes continue to run smoothly.

Cargill's Y2K Project Scope



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RESPONSES OF TYRONE K. THAYER TO QUESTIONS SUBMITTED BY CHAIRMAN BENNETT

Question 1. I understand that Cargill is assessing key suppliers and looking for alternative sources in some instances. As part of your contingency and business continuity planning, is Cargill planning to stockpile critical supplies? If other companies also are planning to stockpile these types of supplies, how might that affect the food supply industry?

Answer. We have and will continue to assess the readiness of key suppliers through the Year 2000; however, at this time, we have not had to rely on alternative suppliers. Cargill has considered stockpiling some packaging material and chemicals

used in our processing; however, we have not made any decision to do so at this time.

We can not accurately predict how food supplies might be affected should the industry as a whole begin stockpiling; however, it is possible that we could see an increase in the prices of their goods if demand exceeds supply. The editorial and article in the enclosed copy of *WorldFood*

magazine also addresses this issue. This publication is mailed to the CEOs and purchasing managers of most of the top food companies in the world.

Question 2. You indicated that Cargill expects imports and exports may be affected in some way. What are your concerns about imports and exports? How do you respond to the assessment of the Food Supply Working Group that 1) foreign markets for US food products will likely have a relatively low risk of Y2K disruptions and 2) if there are import disruptions, will domestic capacity be able to fill the void to some extent?

Answer. We have concerns in three areas: the importation of commodities into the United States and our ability to effectively complete exports from the United States; the ability for U.S. companies to receive payment for their exports; and the inability of some foreign governments to manage their export and import process. We are particularly concerned about countries that the Gartner Group ranks as Severity Categories three and four.

U.S. exports are probably of lesser concern because North America is further along in its preparation for Y2K than most other geographies. If there are problems, they may occur where our products are imported, and where we have no direct control.

We import food products—like coffee, cocoa and orange juice—where demand in the United States exceeds production. Import disruptions, therefore, may cause a disruption in product availability and have an impact on prices.

Question 3. Where do you see the greatest vulnerability of the food industry to Y2K problems and why?

Answer. Our position has not changed since we provided testimony to the Senate Special Committee on the Year 2000 on February 5. Cargill's overall efforts focus on avoiding disruptions in the supply chain—most of which is external and out of Cargill's, or any company's, direct control. Our concerns fall into four areas: utilities, transportation, telecommunications and financial. If these areas do not function, business can not function. However, our sense is that these industries continue to make good progress and, in general, are expecting to be Y2K ready.

Question 4. As a leading processor of beef, pork, and poultry, as well as a company with an excellent Y2K program, are you aware of any examples of systems used to ensure the safety of meats that could be affected by the Y2K problem, and what has or can be done in these areas?

Answer. Refrigeration outages could have an adverse effect on raw meat. These outages could happen mainly at fixed facilities (production and distribution), but could also occur in transportation vehicles if fuel for running refrigeration units becomes unavailable. We found that some refrigeration units required upgrading so they will work properly after the Year 20000.

These units have been upgraded per the manufacturers' requirements to assure that they are Y2K complaint.

Question 5. Please describe the potential impact of the embedded chip problem on food plant processes. Has your company found the problem to be better or worse than initially anticipated in this area?

Answer. We have found and fixed problems that might have affected the safety, environmental or production areas of our own food plants. However, any problems that remain undiscovered in our plants, or elsewhere in the food industry, would have two potential consequences. One consequence could be that systems shut down or simply do not respond. If that happened, normal control interlocks would ensure that plant processes were held in a steady "safe" state, or shut down in an orderly, controlled manner. A second consequence could be that the affected system would not behave according to the expectations of operators or engineers. Abnormal readings or confusing alarms might trigger incorrect operator actions that could compromise safety, the environment or production.

The problems were not as widespread or significant as we initially thought. We have identified 3,010 control and lab computer products in use at one or more of our plants. Only 21 products—less than one percent—contained problems that would have affected the performance of the system or shut it down.

Question 6. The Food Supply Working Group's initial assessment of the Y2K-readiness found that many large companies have yet to address other key issues such as contingency planning, embedded systems, etc. Based on what you have done at Cargill and its plants as well as other companies you work with to what extent, in

your opinion, have companies been addressing these other Y2K exposure areas? What are some examples of problems that Cargill has found with embedded chips? Are you sharing information on these issues with other industry companies?

Answer. Through meetings and interviews with other large food companies, we have discovered that most have followed Year 2000 procedures similar to Cargill's, and they expect their work to be completed by June 1999. Like Cargill, most companies have waited until early 1999 to formulate contingency plans.

Embedded chip systems are assessed like any traditional PC computer system. Some examples of problems we found include: alarm error messages out of sequence, refrigeration units that may go out of tolerance and electrical control panels that would shutdown.

Yes, we are publicly sharing the lessons we have learned. Phil Hannay, Cargill's Worldwide Y2K Plant Coordinator, has presented speeches and papers at three national Y2K forums, and has had several articles published.

Question 7. Most of your raw materials for your products are obtained from farm and livestock producers who are both your suppliers and customers. How confident is Cargill that these businesses on which it depends that are not yet Y2K compliant will be ready in time, and what are some areas of concern?

Answer. We are highly confident that farmers and livestock producers will be able to deliver their products to us. The start of the new millennium is positive timing for avoiding problems in the raw material supply chain in the United States: 1999's grain crops will have been harvested and most crops will not be planted until Spring. With regard to other key raw material—livestock—Cargill runs a large cattle feeding operation which will be Y2K ready. Feed for the cattle may be of concern as we rely on transportation from elevators to processing plants.

Our understanding of the use of computers on farms is that a majority of farmers use personal computers and less than half use the Internet. Use is primarily for planning and accounting, rather than controlling the operation of the farm or for livestock production. Some farmers have moved to precision agriculture which is very dependent on computers and embedded chips. In either case, we do not see this blocking or endangering next year's planting. Farmers—if necessary—will revert to non-precision methods if problems with precision agriculture systems persist.

Question 8. Most Cargill facilities do not have back-up generators, and you have determined that it is not cost-effective to add that capability. How long can an average beef, pork, or poultry plant survive without back-up power before you would expect to incur a significant loss?

Answer. Production operations will be interrupted during any power outage. In rural locations, power outages of one half to two hours occasionally occur. Longer outages could cause significant production losses. Power outages which impair refrigeration would cause product losses in two ways:

a. If unfrozen product was already stored in the chill coolers as carcasses or as chilled product, it could withstand outages of approximately 12 to 16 hours without significant problems, provided that it remained in the storage rooms at the time of the outage. If outside temperatures are at or below 32 F, our window of maintaining product quality would be increased.

Two days of significant thawing on frozen products could have an adverse effect on quality.

We are considering back-up electrical and heat sources to prevent potential damage to plants and to protect product and raw materials stored in our facilities. Our worst case scenario for plant protection systems is one week without power.

Question 9. In the United States, 65 percent of your key plants and 70 percent of your business systems have been updated, tested, installed, and running. Could you please describe any unanticipated challenges and any lessons learned from completing this process? What is your timeline for completing the remaining key plants and business systems?

Answer. We have continued to make progress in preparing our plants and business systems for the Year 2000. We are pleased to convey our current status as of April 30, 1999:

97 percent of our plants worldwide are complete

91 percent of our business systems are complete

The challenge we did not anticipate was the difficulty in obtaining Y2K information on embedded systems. This information was not readily available until mid-1998 (as compared with information on business systems which was generally available much earlier). We also did not expect to make as many changes and patches as we had to on operating systems software after the vendor declared them complaint. Finally, it was difficult or very slow to obtain information about the status of suppliers and vendors. Ultimately it was the SEC's ruling and Year 2000 legisla-

tion that helped speed these processes along. At this point, we believe we have the information we need to assess our products and implement our fixes.

Cargill anticipates that most business systems and key plants will be ready by June 30.

Question 10. Please give your assessment of the overall readiness of the food industry to meet its obligation to the public in the Year 2000.

Answer. We concur with the Senate finding that, in general, the US food industry will be ready for Y2K. We anticipate only isolated problems that will be relatively minor in scope and nature.

Question 11. As you know there is concern about the possibility of food stockpiling and hoarding by consumers; however, many businesses as part of their contingency and business continuity planning are also considering stockpiling. Are there special activities your corporation is taking to address these concerns? If so, what are the general milestones for them?

Answer. We dedicated an editorial and a feature in the enclosed copy of *WorldFood* magazine to the subject of hoarding. Part of the contingency planning process to be completed in June 1999 includes discussions with key customers. Ty Thayer is a member of the Minnesota "Superboard on Y2K Preparedness". The Board seeks to identify potential problems in Minnesota businesses and organizations that could impact the success of Y2K, and helps to solve them.

additional beef and pork supplies on hand during the last months of 1999 and early months of 2000?

comprise 38 percent of the retail market. They feel confident that the major beef packers will be Y2K compliant; they also feel their own company systems will be compliant. Most do not appear concerned about deviation in consumer meat buying at the end of the year. However, a few of Excel's (a subsidiary of Cargill) "case-ready" customers have voiced some concern.

The perishable nature of our raw material and products do not easily allow for stockpiling.

○