

U.S. exporters. For example, the co-ops such as the Grain Terminal Association in Minnesota, would be able to complete. Actually, I believe the Soviets pay a higher price by buying huge amounts all at one time.

According to my information—and this is subject to some variables—there are about 18 U.S. companies that can handle four or five cargo sales per week. But there are only three companies that can put together 5-million-ton sales.

One-term agreements, such as those being discussed in connection with the United States-Soviet grain trade, really are more window-dressing than solid substance.

If the Russians have a short crop, they are going to buy. If we have a good crop we are going to sell. And if we don't have a good crop, we can't sell.

It seems to me we need to take a look at the overall marketing system. This system, as I am sure Sir. Bell will concur, is to a very large measure based on adequate information as to availabilities, crop planting intentions, and predictions.

At this point Mr. Bell, let us hear your testimony.

STATEMENT OF RICHARD E. BELL, ASSISTANT SECRETARY FOR INTERNATIONAL AFFAIRS AND COMMODITY PROGRAMS, U.S. DEPARTMENT OF AGRICULTURE

Mr. BELL. Fine, Mr. chairman. I, like you, would like to present for the record my formal statement and make a few brief comments about it.

I do appreciate the opportunity to be here this afternoon to talk a bit about what we are doing to improve our data in terms of the analysis of Soviet agriculture. You had also asked us to talk about the People's Republic of China.

And in that respect I would like to say at the beginning that we are very limited on our information and our information exchange with China at the present time.

We have no formal agreement like we do with the Soviets. We do have a few teams which have been out there and library and exchange of teams and seed and so forth. We also lately have been able to get our agricultural officer in Hong Kong to make a visit to China and prepare us a series of reports.

We do hope soon, partly through your efforts, to be able to say that we have an agricultural officer at the Liaison office in Peking.

Chairman Humphrey. Is that being negotiated now?

Mr. BELL. Yes; it is. We had extensive discussions with the Department of State and we have basically agreed on the format and I would hope that that would happen within the next several months. So that by the end of 1973 we will have someone on the staff in the Liaison office in Peking who will be looking after agriculture most of the time.

Now, with respect to the Soviets themselves, the Soviet Union and our analysis of that, I would like to mention two things which I think are significant developments in the past couple of years.

One of them is our agricultural cooperation agreement which was signed in June 1973 with the Soviets. And, second, about some of the

efforts we are making to improve our efforts to work better within the various agencies within the Government itself.

In the agreement that was signed in June 1973, there are two parts. There is a technology exchange section and then there is an information exchange agreement. We from the United States were more interested in the information exchange, the Soviets were more interested in technology exchange.

We move soon after the signing of the agreement in late 1973 to establish the form for the work under that agreement. It takes the form of a working group on exchange of economic information. We now have almost 2 years of work under our belts on that. We believe it has been useful. We still have a couple of areas which we think we still need to make improvements.

In the beginning we asked the Soviets to supply us on a regular basis each month with 10 categories of data regarding developments in their own economy. They have been quite responsible in supplying us with those data. They have arrived generally maybe a month to 6 weeks late. They generally have arrived and they have been what we have asked for.

It has enabled us to get information on what is going on in the Soviet farm economy sooner than it was before that. We get data that is not published in the Soviet Union itself 3 or 4 months in advance. And that has been useful to us, particularly in trying to decide how the Soviet economy is going.

We have also been able to get some data which are new data, which are not published on a regular basis or at all, particularly on oil seed production, on livestock slaughter by months, and on the use of fertilizer by crops. They have been cooperative in that.

One of the areas which we have not been successful in is in getting the Soviets to provide us data on forward estimates. This is crop forecasting and the implications for trade. We have had meeting after meeting on that and we have at this stage made no progress.

Chairman HUMPHREY. Why do you think that is, Secretary Bell?

Mr. BELL. I think it comes about in part because of the system they are involved in. They, of course, have 5-year plans, which are made up of annual plans. The annual plans, of course, are always quite ambitious. And when we ask for forward estimates, they say, well, this is what the plan says. And not until the year has been completed will they admit that the plan was not fulfilled. And it gets involved in how the system works.

I am confident, though, that there are regular data which are flowing toward Moscow on the crop conditions and the crop situation during the harvest. How this is put together and who it goes to we have been unable to really find out, though we did have a team over there that did look at how they gather statistics and so forth.

Hopefully, some day we will be able to tap into that system and get something. But as of now we have not.

We have attempted to replace our lack of availability of that data by sending in teams. In the early days we had resistance on the part of the Soviets on that, but this year we have been able to get a winter wheat team in, we have been able to get a spring wheat team into the Soviet Union, and now we have a sunflower team which is just about to return.

The winter wheat team was very useful to us this year. They in fact got far enough east in the country to be able to see the drought area in

the Volga Valley, which was our real confirmation from the other data that we had that there was a drought going on.

So in general the agreement has been useful to us; it enables us to understand the Soviet economy a lot better than we did; it enables us to meet many more Soviet people than we had ever before—we have people constantly going in and out.

I think, though, that the area that we have done as much as anything that has helped our analysis in the past 2 years has been the efforts taken on our own to organize ourselves better. We have in particular moved to use the weather data which is available to us. We have a system set up with the U.S. Air Force where we get computerized raw data from the Air Force every 10 days, which gives us data on precipitation, data on temperatures, and a computation of what we call soil moisture.

Chairman HUMPHREY. You used to have a system in which it came over to Virginia and would sit there for 2 or 3 weeks.

Mr. BELL. We now get that 5 days after the decade for the decade.

Chairman HUMPHREY. You know that Senator Bellmen and myself traveled to the Soviet Union right after the 1972 wheat sale and discussed these matters with the Soviet Chairman of the Council of Ministers, Mr. Kosygin, and with Mr. Matseyevich, at that time the Minister of Agriculture. He has been replaced since then.

It was during those discussions that we were able to have Mr. Kosygin agree that he would be prepared to enter into a bilateral arrangement. We wired Secretary Butz from the Embassy that we hoped they would proceed. We also brought great pressure to bear to increase the number of U.S. agricultural attaches. At the time, you remember, we had only one attache there. Now we have two, I believe.

Mr. BELL. We have an agricultural attache and we have two assistants. And the main thing that that enables us to do is to have the attaches traveling more. The Ambassador insists, and I think rightfully so, that one man be in the Embassy all the time for his help. His meant with only one additional man, you couldn't cover much of the country. So with two we can actually have two out at the same time and still one to cover the office itself.

So we appreciate the help that you and Senator Bellmen gave us on that, as you have done here in the case of Peking, and it has been a lot of help.

These weather data that we are getting from the Air Force, we have put them into a model, as we call it which we use now to begin to estimate the grain production in the Soviet Union early in the year. It is not an econometric model, it is really a model which is judgmental. But it does go into fine detail by regions and by crops. And it was obvious to us in the early part of June that from the model just about the same time the spring wheat was being planted that there was going to be a weather problem.

Chairman HUMPHREY. Is this from our weather satellite or from a reconnaissance satellite?

Mr. BELL. As I understand it, Senator, it is basically from the monitoring—it is two parts. There is a regular international exchange of weather data, and, second, there is a monitoring of radio stations by the Air Force themselves, who bring this data together in a computerized system and make the final material available to us.

Chairman Humphrey. Are you using any LANDSAT data?

Mr. BELL. We do have some information that comes to us from ERTS. At this stage it is quite limited, and its usefulness—you are aware, though, of our project we have which we call LACIE, which is using the satellites to try remote sensing. Mr. Hume and Dr. West are going to talk a bit more about that tomorrow.

There is still at this stage a difference of opinion within the Department about the effectiveness of that. I tend to be "pro" on it. I think that in 4 to 5 years from now, the remote sensing will be very beneficial to us for crop forecasting, not only in the Soviet Union but in other places.

It is interesting, within the past several weeks, there has been an "interest on the part of the Soviets themselves to want to cooperate in this effort. And NASA has talked with us in the last couple of weeks about the degree of cooperation on technique, which really is outside of us in the USDA—it is something that they will have to do.

There will be a team here from the Space Institute of the Soviet Union in October to look at some areas and discuss this. So I think that is encouraging, too, that we will be able to get a joint project eventually going in this area.

We do get some limited information from the satellites now that has been helpful, but it certainly is not definitive enough to provide us with the same type of information we get from our analysis of the weather data itself.

Chairman HUMPHREY. I hope you can encourage the negotiations with the Soviets on space technology that relates to weather information and to the LANDSAT technology.

I think for the record I should say during the time I was chairman of the Space Council, it was the Department of Agriculture and the Department of the Interior that insisted we continue to develop remote technology sensing satellite—now known as LANDSAT.

Mr. Bell. If I might, Mr. Chairman, comment just briefly on your earlier remarks about what we are trying to accomplish in the long-term agreement with the Soviets on grain.

Many of the elements that we are trying to put in the agreement you have already touched upon, and that is that we would like for them to become a regular buyer where they would have spaced purchases and we would know in advance, within a range at least! what they intend to buy. And I have hopes that that type of agreement will be worked out and relatively soon.

With respect to your question about participation of firms in the export trade with the Soviet Union, we have urged the Soviet's buyers to try to broaden the number of people that they deal with. We particularly mentioned to them the farmer cooperatives. And we have had some interest on the part of the farmer cooperatives in trying to do business with the exporters who have buying agencies—but, as you have rightfully pointed out, their technique of buying very large quantities makes it very difficult for a co-op who does not have the same type of information-gathering system to compete effectively with the five or six large grain export firms.

Chairman HUMPHREY. And some of the co-ops are not oriented toward direct export. They are the accumulators.

Mr. BELL. That is right. They originate the grain and make it available to the Soviet Union. Chairman HUMPHREY. They are not in the export business.

Mr. BELL. And then they say they have made an export sale, that usually means that they have made an export sale to a ship, to Continental or Louie Dreyfus or someone who ends up making the sale to the foreign country.

Chairman HUMPHREY. The Russians seem to like to do business with the biggest possible firms. They are always talking about monopoly capitalism and they end up aiding and abetting.

Mr. BELL. Again, I think, Mr. Chairman, that that comes about, because of their system where they want to plan far ahead and they want to know what is going to be coming in 3 or 4 months from now and they want it in specifics. They are such a vast country, the quantities are so large—this *is* the system they go to.

At the same time, I appreciate what you said about India, and I also could add Japan. India this past year bought 41 $\frac{1}{3}$ million tons of wheat from the United States.

Chairman HUMPHREY. That is commercial sales.

Mr. BELL. There was a little bit of Public Law 480 in there, about half a million tons. The other 4 million tons were commercial purchases.

That in fact also was done through a monopoly buying agency, known as the Food Corp. of India. And they have a man who is a wheatbuyer located here in Washington in the Indian supply mission. He bought his 4 to 4.5 million tons on a day-by-day basis as he went through the season. And, as you have rightfully pointed out, by this type of technique, no one said anything about the Indian purchases.

Chairman HUMPHREY. Most people didn't even know they were buying.

Mr. BELL and I also would think, from what I know about buying operations, that he was a very effective buyer. And he probably ended up paying a better price than the Soviets would have done by their swooping technique, as I call it. The Japanese in the case of wheat also have a monopoly buying agency, called the Food Agency, as you are probably familiar with. They buy on a tender system.

Again, they do not cause the ripples in the marketplace as we do by this rushing in and buying the large quantity all at once that the Soviet Union has used.

Now, we have pointed those examples out to the Soviets within the past several weeks and hopefully we can persuade them that there is some merit in that type of buying.

Chairman HUMPHREY. I am one that happens to believe that it is important, for us to have this export trade with the Soviet Union. However, the issue is, how do we regularize the trade in the context of an orderly marketing system?

Mr. BELL. The objectives of the long-term *agreement is to embody* the same principles you are talking about.

Chairman HUMPHREY. What kind of information coordination do you have on an international basis? What information is collected, how reliable is it, and what sources is it obtained from? Let's take, for example, one crop, wheat, which is always the key crop.

Mr. BELL. We have one prime international source of information on wheat which is probably our best source of information.

Chairman HUMPHREY. London?

Mr. BELL. The International Wheat Council in London. It is by far the most effective international body in the gathering and analyzing and dissemination of information.

Under the current agreement, we have a meeting in London of the 10 major countries where the information is supplied and put together by the staff and a report is distributed to member countries.

And I think it has been very useful in terms of providing a degree of stability to world trading in wheat. When it comes to the other commodities, like rice and coarse grain and meat, we do not have that effective a system. We do have information which comes from the **FAO** in Rome. It tends to be less prompt and it is not, in my judgment, as accurate and as useful as the information coming out of the International Wheat Council-or as up to date as the information from the International Wheat Council. There has been an effort, though, within the past year to year and a half, mostly as a result of the World Food Conference, I believe, to improve that system. And the FAO staff is putting out a monthly bulletin now on the outlook for grains. We find, of course, that a lot of that is our own information coming back to us. But we do not necessarily quarrel with that if it goes to other countries and it helps in their decisionmaking-we think it is useful.

But the International Wheat Council and the FAO are the two prime sources of data from international organizations.

Chairman HUMPHREY. I have a few questions at this point I would like to ask you.

First, what steps can you tell us are being taken by the administration to have a unified U.S. grain policy? There seems to be so many participants right now, with the USDA, the State Department, the Labor Department, and the special representatives of the White House,

Are we really arriving at a policy or is this just an ad hoc business that we are going through?

Mr. BELL. We in fact do have what we call an International Food Review Group, which was established by a memorandum issued by Secretary Kissinger following the World Food Conference, which Secretary Kissinger and Secretary Butz are the chairman and vice chairman of.

And under that International Food Review Group, which is at the Cabinet level, we have a working group which is generally chaired by Tom Enders, Assistant Secretary of State, which is an effort to try to bring together the views of all the departments on international food policies. We have worked consistently on that in trying to develop our positions for an international food reserve system, which we finally agreed on here the middle of last week, in order to present it at a meeting in London on Monday.

With respect to the recent events ~~to have been handled more on an ad hoc basis than it has coming~~ through this formalized review group.

Senator KENNEDY. Mr. Chairman?

Chairman HUMPHREY. Yes Senator Kennedy.

Senator KENNEDY. I must leave soon to attend another meeting. There are a couple of areas I would like to cover before leaving.

Chairman HUMPHREY. Please right ahead.

Senator KENNEDY. You may have covered this in your earlier remarks; I regret I was unable to be here.

During a recent meeting of the Joint Economic Committee, Mr. McElvoy was asked what impact the Soviet grain agreement would have on consumers. He responded that he thought the impact would be rather negligible; however Arthur Burns testified to the contrary. When Secretary Butz testified before the Agriculture Committee, his testimony was contrary to Mr. Burns.

The President stated last week that he thought the agreement itself would be in the interest of both consumers and producers. I wonder if you can clarify what the basis of the President's remarks was and how the agreement will be in the interest of consumers.

Mr. BELL. Fine, Senator. If I might go back and scenarios which took place regarding the comments by Chairman Burns and subsequent Secretary Butz. Several months ago, when we had the first sales of about 10 million tons of grain to the U.S.S.R., the U.S. Department of Agriculture at that time estimated that 10 million tons would perhaps raise the price of food at retail about 1 to 1 1/2 percent.

Subsequently, Chairman Burns testified that the sales of grain to the Soviet Union during the entire year would raise the cost of food about 2 percent.

From those two figures, there seems to be an inconsistency where in fact there is not. In the calculations by the Federal Reserve Board, they took into account probably further sales. Our calculations did not take into account, except where we had sold—

Senator KENNEDY. Is this a total increase of 2 percent in terms of the Consumer Price Index?

Mr. BELL. It is the food component of the consumer price index and the food component makes up about 20 percent of the CPI.

Senator KENNEDY. But just this one deal amounts to anywhere from a 1/2 to 2 percent increase in the cost of food?

Mr. BELL. The 10 million tons that we have sold and reported to date, we estimate will increase the retail price of food by 1 to 1 1/2 percent. Further sales which will be made will probably raise it another half a percent, which is a total maybe of 2 percent, resulting from sales which we probably will make during the course of the 1975 to 1976 crop year.

Now, you ask how do we view that as being in the interest of consumers. I, for one, look upon the Soviet Union now as being a regular buyer of grain and other products from the United States. We have been selling grain to the Soviets every year since 1971. Our real problem with the Soviets is their buying **pattern**. They have bought large amounts one year, small amounts the next year, large amounts the next year, small amounts the following year. This has tended to add a degree of instability to the market.

And the purpose of the long-term agreement we are now discussing with them is to try to smooth out that buying pattern and bring more stability to the market.

But, Senator Kennedy, we must have the Soviet market if we are going to continue to run American agriculture at full capacity. We still have more resources available to us under our system of agriculture than we can adequately use to feed our own people and generally Western allies and the developing countries.

So I think the main benefit we get from selling grain to the Soviet Union is that we run American agriculture at full capacity. In the longer term, that means lower food prices for everyone.

Senator KENNEDY. Yet in the immediate term it results in a 2 percent price increase.

Mr. BELL. That is right. In the short term, there maybe some higher food prices than there would have been without the sales, but in the longer term it is our feeling that it will mean lower food prices.

Senator KENNEDY. How much do you anticipate selling to the Soviet Union over a longer period!

Mr. BELL. I look upon the Soviet Union to be a market on a yearly basis of around 8 million tons a year, including about 5 million tons of feed grains and three million tons of wheat.

And if you look at the figures over the past several years, we have averaged selling them about 6 to 7 million tons, and from all countries they have purchased about 11. I would see that continuing to be a factor in the market.

Senator KENNEDY. What is going to be the impact over the next 3 years in terms of increased costs to American consumers? When does your curve turn around?

Mr. BELL. I would say that it will begin to turn around by 1977 to 1978. Without the Soviet market, I would think that by 1977 or 1978 we would be back into what we call the land set-aside program, we would be asking the farmers to restrict production, which in turn eventually means higher prices for food.

Senator KENNEDY. Is this based upon what your understanding of what production would be over any period of time?

Mr. BELL. Yes; it is.

Senator KENNEDY. It seems to me that there has been, quite frankly, a woeful lack of accuracy in agricultural projections. To a great extent this is due to a lot of different factors which people don't have any control over. In view of this lack of accuracy, I am interested in how you are able to make these projections that you have been discussing with such certainty.

Mr. BELL. Senator, that if you go back and study our record in the longer term sense, that our record is fairly good. Our difficulty has been in the current 1-year forecast, where the weather factor comes into effect and is much more difficult to deal with.

In our new projections which we have made, I would like to say that we have taken into account some new factors, which we think will put a restraint on the increasing of American agricultural production in the years ahead.

I think the increments in productivity that we have had in agriculture will be more difficult as we move into the next 4 to 5 years for a number of factors. One of those being of course, the higher cost of energy, which is very important to farming, the higher cost of energy-related fertilizer, which again is important, and then just the cost of machinery which is involved in mechanization and the cost of credit. All of these, I think, would tend to slow us down in the gains which we have had during the past 15 years, but I am confident that there will be gains and that we will continue to increase our production, with a lot of the increase going into the export market.

Senator KENNEDY. I have to leave in a moment. May I ask just one final question? Why is there such variation between the information that we have on the Soviet Union from the Central Intelligence Agency and that from the Department of Agriculture ?

I don't know what the chairman's experience has been, but, when you ask Soviet officials to provide information about their grain production, they say, "Well, you have your satellites, which take pictures of our agricultural areas. These satellites can pinpoint exactly what our production is. Why do you people make such a big point about making these statistics public ?"

Then when we have the difference in the figures that are reported by the Department of Agriculture and those reported by the Central Intelligence Agency, how do you explain the discrepancy? Are we using the satellite ? Are we getting accurate information? If we are, why the difference between the two agencies?

Mr. BELL. The data which is used to make the various estimates among the various Government agencies are basically the same data, and it is basically the weather data which I guess I discussed before you came in.

There is a judgement factor involved in making those estimates. And at times there can be wide variances in the judgment—

Senator KENNEDY. Why is it just weather data? Why aren't satellites used to photograph the crops to give us better production estimates ?

Mr. BELL. The Soviet Union becomes much more hazardous in terms of trying to estimate than our own country, because of where it is geographically located. It is so much farther north, the season is much shorter, it is very subject to change very quickly.

And this is true also in the case of the northern Great Plains region, it is also very true in the case of Canada. If you go back and follow the Canadian crop estimating and their a-merit of the crop, they are much more uncertain about the size of their crop right into the very end than we are in the United States, where we are much more southerly located and we have a much broader production pattern.

We are using the satellites to give us information on the Soviet crop situation. At this stage, the usefulness is quite limited.

We do have a rather large-scale project which we initiated last year with NASA, which is about a 3-year project, and I believe that at the end of the 3 years that it will probably turn out to be very useful. But we are going to have to run through the series.

And, as I was telling Senator Humphrey before you came in, here within the past several weeks we have had some interest on the part of the Soviets themselves in cooperating with us on that type of project. And NASA has a team coming into the United States at the end of October to discuss about the techniques of what is called remote sensing, which is the use of the satellite.

Chairman HUMPHREY. Isn't it a fact that about 90 percent of the arable land in the Soviet Union is north of Minneapolis ?

Mr. BELL. Yes; that is true.

Chairman HUMPHREY. That means the variation in temperature in this part of the Soviet Union is significant.

Senator KENNEDY. Thank you, Mr. Chairman.

Chairman HUMPHREY. About 2 years ago the temperature in Minnesota dropped down to 23 degrees--a sharp frost--in late August. This August it was as high as 95 degrees. Trying to predict frosts in these northern climates depends 98 percent on good luck.

Secretary BELL. I have just a few more observations.

I notice in the Wall Street Journal yesterday that further sales of U.S. grain to Poland have been suspended until the United States concludes negotiations on a long-term grain sale agreement with the Soviet Union.

Isn't this just another example of where a bilateral arrangement with one country such as the Soviet Union tends to disrupt the pattern of sales with another country? We have been selling to Poland quite regularly over the years.

Mr. BELL. Since the end of World War II.

Chairman HUMPHREY. They have been a good long-term customer. "

Mr. BELL. We in fact, Mr. Chairman, have an agricultural agreement with Poland for the exchange of information. And the roles have been very good in terms of providing the data that they have been asked. They in fact have been giving us before the beginning of the season a general idea about what their import requirement is going to be by the type of commodity, and they have pretty well stayed with that.

What happened to them this year is that they normally depend upon the U.S.S.R. to supply them about 2 million tons. Around early August, they were told, by the Soviets that they would not get any from the U.S.S.R. and they should be on their own. And the Polish officials, if I may say so, faithfully reported that to us under the terms of the agreement, and that they would be buying more and that they hoped that they could.

I, in fact, told the Polish officials that we had expected that would generally happen when the Soviets were short and that we had no problem meeting their requirements. So I was a bit taken by surprise when the State Department approached them and asked them to delay their purchases for awhile. Because in my judgment they in fact were doing a very orderly job of buying in the market; they had kept us posted generally about what they intended to do; and it was coming into the reporting system, as it should have.

Chairman HUMPHREY. So they were cooperating in terms of providing information.

Mr. BELL. All the way.

Chairman HUMPHREY. From planting intentions to predictions, crop estimates to the consumption or use of grains?

Mr. BELL. They had basically been supplying us the data that we asked for under the Soviet agreement but had not been able to get forward estimates and trade estimates.

We also completed an arrangement like this with Romania a week ago last Friday. And it will provide the same type of information. Romania becomes interesting to us in that it is one of the countries in Eastern Europe that moves from year to year from an exporter to an importer. And that can affect the trade between regions. Hopefully we can be as successful with the Romanians as we have with the Poles. If we are, then we will feel pretty good about it.

We still have some holes in our information system in Eastern Europe, particularly with East Germany. We have just recently established relationship with East Germany. We are just now beginning to find out who the key people are and beginning to meet them. Hopefully, that's-we will be able to-

Chairman HUMPHREY. They are already buying from our markets.

Mr. BELL. In fact they have been a much larger buyer than have the Poles. As of the middle of last week, our reporting system showed that we had sold Eastern Europe about 4.7 million tons of grain, including about 2 million to Poland and about 2.3 to East Germany and the remainder, 300,000 to 400,000 tons, to Romania.

Chairman HUMPHREY. And those are in smaller sales; aren't they?

Mr. BELL. That's right.

Chairman HUMPHREY. They are not in big lump sum sales.

Mr. BELL. Right.

Many of the purchases by Poland in fact were of the 50,000-ton size or less and did not even show up in the daily reporting requirement that we have in which we have to report sales of 100,000 tons in a week. They came in the weekly report.

Chairman HUMPHREY. What I am trying to emphasize for the record is that approximately 4 1/2 million tons has been purchased, and the media has hardly mentioned it.

Mr. BELL. That's right.

Chairman HUMPHREY. It has only been noted in the professional agricultural journals. But when the Soviets make a 3-million-ton purchase at one time, it is like falling off the ledge of the Grand Canyon. Right away someone says a major decision is being made.

Let me ask you *one* other question. If we maintain this hold on exports to the Soviet union, is there any reason that the Dutch can't buy from us and transship?

Mr. BELL. There is no reason that they couldn't. I look upon it as highly unlikely. It would have to be done through transshipment out of Rotterdam in what we call coasters.

Chairman HUMPHREY. That's what I mean.

Mr. BELL. Again, the Soviets generally have not been interested in that type of trade.

Chairman HUMPHREY. But let's say for example that they must get the commodity. The Russians are not buying from us because suddenly they decide that Bell and Humphrey are two of their best friends. They are buying because they need it.

If we persist in holding back exports to the Russians, isn't it likely that they will be able to buy through the Dutch or another count .

Mr. BELL. I have looked at this question, of course, Senator Humphrey. In my judgment, the transshipment capabilities of the Soviet Union out of the Rotterdam-Antwerp-Amsterdam area is quite limited. That is very much a part of the West European trading system. Most of the grain which goes into the United Kingdom now comes through the transshipment business. It would be impossible for very large quantities to be transshipped into the Soviet Union out of that -

Chairman HUMPHREY. What about the possibility of rail shipments across and out of France.

Mr. BELL. There are two things that prevent that from happening. The Soviet canal system does not interlock with the East European-West European system, and the railways in the U.S.S.R. are a different size gage than they are in Eastern Europe and into Western Europe. We have looked at this question in respect to the possible transshipment of purchases from the East European satellite countries into the U.S.S.R. and are confident that that is not being done.

I do think, though, that in terms of the hold that we have at the present time on sales, that in time that the Soviets would be able to meet their requirements by buying the Argentine spring 1976 corn crop, sorghum crop; there will be sorghum from Australia at that time. There will be other supplies which eventually can fill the gap if our hold continues.

Chairman HUMPHREY. Right. That's what my farmers say.

Mr. BELL. And what will happen is that we will end up then supplying the grain probably to the other markets in larger quantities than we normally would. So the hold, in terms of insulating ourselves in the market, really doesn't do that much. The purpose of the hold is to try to give us time to work out a system which will have a more adequate framework in which to deal in the future. And if I understood what you said, you concur in that attempt.

Chairman HUMPHREY. The reason I mention this is because of a commodity news service report that says the following:

Although U.S. grain export firm representatives recently have been shuttling in and out of MOSCOW, none has notified the Agriculture Department of serious negotiations for the sale of more U.S. grain to the USSR. Assistant Agriculture Secretary Richard Bell said at the weekend that he is aware that a number of export representatives visited Moscow recently and may be there now, but indicated he is confident none is trying to sell U.S. grain to the USSR while such sales are prohibited.

You don't think they are just over there for a visit, to look at the walls of the Kremlin?

Mr. BELL. In fact, they are attempting to sell other origins.

There is no difference between the American export firms and the international trade firms. They are all the same. And they have been into Moscow lately selling Argentine, Brazilian, Eastern Canadian grain. And that's what they have basically been working on.

Chairman HUMPHREY. So what they are really doing is selling other countries' grain to the Soviet Union, even though they may be multinational American companies?

Mr. BELL. That's right.

Chairman HUMPHREY. Is it not possible that, as in the past, we always have a certain number of export sales of uncertain destination.

Mr. BELL. It would be unknown destination.

Chairman HUMPHREY. These American multinational firms export American wheat to another exporting country, which becomes a foreign exporter as far as we are concerned, and they in turn export American wheat directly to the Soviet Union.

Mr. BELL. Now, we have within the reporting system at the present time, Senator Humphrey, the reported sales to unknown destinations are not large. We have though taken—

(Chairman HUMPHREY. That's what I said. This practice was much more than a year ago.)

Mr. BELL. And we have taken the precaution, though, of not only talking with the export, firms about this question. But we have used our audit authority under the act to make audits of the records of the companies on which the reports are based. And we are satisfied that there is not, any business going on which *is* inconsistent with the request we have made to them.

Most of their activity, in other words, has been related to the selling of other origins.

(Chairman HUMPHREY. Of other origins?)

Mr. BELL. Yes, sir.

Chairman HUMPHREY. Is it not possible that an importing country becomes accustomed to buying from other origins? We always used to say in Humphrey's Drug Store that if we could get a customer from one of our competitors just once, we would have a chance to hold him for a while.

Mr. BELL. I think that's true. that one of the ways of building markets and maintaining them is being a reliable, steady supplier; and that once you have worked and built the market and then you are out of it for awhile, and the new one who moves in has a much-an advantage over you.

It is my feeling though at the present time, despite the problems we have had on the grain standards and the grading, that when it comes to quality, that the Soviet buyers would prefer our grains over the other origins, and that although the contracts today may be made for Argentine corn, as we go later in the year, there could be amendments to those contracts where perhaps our corn would be used. You can't tell at this stage.

(Chairman HUMPHREY. I think that's basically true. But I am a suspicious fellow—not of you, sir—but, in this competitive world where there is a dwindling supply, I think that every time we lose a market, we lose a chance.

Mr. BELL. I agree with you.

Chairman HUMPHREY. What concerns me is the disruption of the marketing system.

What is the world grain supply situation this year as compared to last year and the year before?

Mr. BELL. Looking into the 1975-76 season, a few months ago, we thought we were going to have quite a bit more grain from our 1975 crops and that we would actually build stocks during the 1975-76 Season.

At the present time, I do not think that there will be much of it built up in the world stocks at all.

(Chairman HUMPHREY. Will there be less?)

Mr. BELL. I think we will end up about where we are now. There may be some modest buildup. I think that the buildup that does occur will be in the coarse grains or the feed grains area; and this is basically—we still have problems with the European and Japanese economy not quite recovering to the degree that they are using as much grain for animal feeding as they were a few years ago.

I look upon the wheat market though as being more potentially tight; that is much more finely in balance. And I believe at the present time that we will have a world wheat stocks (decline in the 1975-76 season: but, we in the United States will go up because our size of crop being so much larger than-

Chairman HUMPHREY. The recession has in a sense dampened some of the consumption, hasn't it ?

Mr. BELL. It has dampened consumption in the European community and in Japan, maybe by as much as 3 to 4 percent, or maybe 5 percent; but it has certainly not dampened the usage of feed to the same degree as it (did in the United States. This in part is related to the types of livestock economies they have. In the case of Japan, two-thirds of the grain is still fed to poultry, and you can't put the poultry out on grass.

Chairman HUMPHREY. They don't have much grass for their cattle.. .

Mr. BELL. Right.

Chairman HUMPHREY. We can put them out on grass and feed them much longer.

This is such a complex subject. For example, consider the problem of accurately forecasting weather. Now, using scientific analysis, we are able to monitor the weather pretty well. But I am a South Dakota boy originally, and I remember those good crops we used to have in July that were not worth much in August.

Mr. BELL. Right.

Chairman HUMPHREY. We would have 2 weeks of blistering sunshine and drought, and all would be lost. When the Russians in 1972 had a bad crop, it was those July and August winds and drought that destroyed it.

Mr. BELL. The deterioration in the case of 1972 in the Soviet Union occurred almost within a 4-week period.

Chairman HUMPHREY. That's right. I lived there about 6 or years and we never had a crop from 1929 to 1937. I remember it always looked good in June. We used to look up in the sky and see those great big clouds and my father said, "Son, there's nothing in those; those are empties coming back."

In those days, we used to have reusable bottles, you know.

In the Polish situation, do you have maximum and minimum trade targets on the grain?

Mr. BELL. We have a spread; yes, it is a range.

Chairman HUMPHREY. So you have an agreement, an understanding?

Mr. BELL. Yes; we do. We have an agreement for the exchange of information and then we have some generally agreed targets spread over a 3-year period.

Chairman HUMPHREY. I understand that your department gets information regularly from the CIA, is that true?

Mr. BELL. Yes, sir.

Chairman HUMPHREY. Do you think there would be any chance that we could get this information on a timely basis ?

Mr. BELL. It is my understanding that Members of Congress who ask for it receive their finished product.

Chairman HUMPHREY. Do we get that ?

Mr. THORNTON. Yes, I believe we do, sir.

Chairman HUMPHREY. We have been getting it ?

Mr. THORNTON. Yes, sir.

Chairman HUMPHREY. Do we get it regularly ?

Mr. THORNTON. Well, we have to take the initiative.

Chairman HUMPHREY. Why don't we just get this information on a regular basis?

Mr. THORNTON. Well, they handle it rather sporadically.

Chairman HUMPHREY. Just a few more questions.

These agreements we are working on, such as the Soviet agreement, may provide U.S. grain producers with a degree of price stability and price support, actually—

Mr. BELL. Hopefully, sir.

Chairman HUMPHREY. During periods of abundant production.

But how do such agreements provide, any supply or price protection for U.S. buyers, such as livestock producers, consumers, or other foreign buyers, with whom we have not signed an agreement, during periods of short supply?

Mr. BELL. Part of the theory behind the Soviet long-term agreement is that they would couple, the Soviets, their purchases, their regular purchases from us, with a more effective storage system on their own.

As you know, in 1973, they had a very large crop in the Soviet Union but in fact we estimate they have lost somewhere around 35 million tons of that because they were unable to store it.

Chairman HUMPHREY. I know it.

Mr. BELL. And they do have plans in the current new—in the draft 5-year plan for 1976-80, to construct about 40 million tons of storage capacity. That seems very ambitious. If they can just do part of that, I think it will be helpful.

We do hope though that they will couple their regular purchase program by a more effective storage program so that when they run into a situation like they have in 1975, that they can destock some and continue to buy the regular amount from us. And by doing that, we feel that it will bring a degree of stability to our domestic livestock economy and also will add a degree of certainty to our other traditional buyers like the Japanese, the West Europeans, and so forth.

Chairman HUMPHREY. I want to say I noticed we have been selling off most of our bins.

Mr. BELL. We have sold off the bins from the government; but the bins in fact are still out there, sir.

Chairman HUMPHREY. We haven't sold them?

Mr. BELL. We have about—well, not all of them.

We have about 300 million tons of storage capacity here in the United States.

Chairman HUMPHREY. We do?

Mr. BELL. And—

Chairman HUMPHREY. You mean available now with the terminals?

Mr. BELL. We have 300 million tons of storage capacity, half on farms and about half off farms; and in a good year, we would produce somewhere around 290 to 300 million tons of grains and oil seeds.

Chairman HUMPHREY. So we have a storage capacity equal to a good year's crop?

Mr. BELL. That's right. A little bit above that.

Chairman HUMPHREY. Well, that's very good information.

What worries me is that in a very real sense we have so politicized, so traumatized these sales, that it is causing a range of reactions.

For example, what's the price of spring wheat now?

Mr. BELL. Spring wheat would be around—

Chairman HUMPHREY. \$4.50.

Mr. BELL. Yes. I was going to say \$4.40.

Chairman HUMPHREY. \$4.40, \$4.50, depending on grade.

Mr. BELL. That's right. And the protein is very low this year, and so it's —

Chairman HUMPHREY. It is down some.

Mr. BELL. Yes. Almost everything is sold on a protein basis.

Chairman HUMPHREY. About a year ago, around the 5th of September, wheat was about \$5 a bushel.

Mr. BELL. Yes, sir. It's about 50 cents lower today.

Chairman HUMPHREY. Now, that \$5 wheat of a year ago went down in February to about \$3.70.

Mr. BELL. That's right.

Chairman HUMPHREY. Isn't that correct?

Mr. BELL. That's right; \$3.70, \$3.75.

Chairman HUMPHREY. During that period of time the price of bread went up 9 percent. Why can't we get that information out? Here wheat is going down from \$5 to \$3.70, and in that same period of time, the price of bread in the market went up approximately 9 percent a loaf.

Farmers that had to sell wheat at \$3.70, won't get rich. Now the price of wheat is up to \$4.50—it varies between \$4.35 and \$4.60, depending on grade. And everyone is talking about how inflationary that is.

Mr. BELL. That's exactly right.

Chairman HUMPHREY. But we can't get that message across. I think one of the reasons we can't is that the President and the Secretary of State have been scared out of the export business. Now, you don't have to respond to that, because I know what your position is.

Mr. BELL. Thank you.

Chairman HUMPHREY. Just another question.

How did Secretary Butz learn of the Soviets' grain-buying plans in July? Did a senior U.S. official ask Soviet officials regarding their grain import plans when rumors of such buying plans were reported in the news?

Mr. BELL. Well, basically from two sources.

As I had said earlier, we had watched the Soviet crop situation from the beginning of the spring and were aware that deterioration was setting in in the Volga Valley and in that general region.

At the same time we were aware that they did not have a very large crop last year and that they actually were below their procurement target, which meant that they were probably going to be short if they did not meet the plan.

Our first information, though, regarding the Soviet purchase intentions, in fact, came to us through the export firms.

The export firms for the past year have been almost in constant contact with the Soviet buyers; and they go in and out of Moscow almost weekly, and there is someone there generally every day.

We have asked them to keep us posted on the Soviet attitudes and information. They have done a good job of doing that. They have generally given us a report on every trip in and every trip out and in June, they began to tell us that they felt the Soviets were showing an interest and were probably *going* to buy. Not until the first week in July did we get a call from one of the export firms, who said that they

felt that they had in their sense opened negotiations for the sale of grain to the Soviet Union. Whithin the same day we got a second call.

Chairman HUMPHREY. About the 10th or 11th of July, around there?

Mr. BELL. Yes, sir.

And at that stage, they kept us informed of the quantities they were talking about; each firm told us the quantities they were working on; we kept that information generally to ourselves about what each company was doing, but if you go back and follow the information put out by the Department, you will find Secretary Butz in the early part of July talking about potential sales of 5 or 10 million tons.

Chairman HUMPHREY. That is correct.

Mr. BELL. And then when we got to the 10-million-ton sales level, the next step was, we asked—we felt that we were getting into an area which was more slippery, and we asked that they begin to contact us before they began what we considered negotiations. And in fact as you know there have not been any sales since that time.

Chairman HUMPHREY. Do the agricultural representatives plan to include a provision in the long-term grain purchase agreement now being negotiated to require Soviet authorities to notify our Government of the quantity of purchases planned for the current marketing year in advance of negotiations with private grain companies?

Mr. BELL. Yes; first, of all, I think that there will be a general range that they will buy within each year. If they are going to go above the top of that range, then they would be required to consult with us at the government level before they move ahead.

We have also—we are intending to include in the agreement a section requiring advance information. I'll be quite frank with you though, Senator Humphrey. I have not much more hope of getting any more information out of that section than we do out of the current agricultural agreement. I think that the safety features are really in fact—is this range, and then their having to come to us before they go above it.

Chairman HUMPHREY. Be persistent in trying to get that information. It takes time.

You have talked to the Soviets you say about their distributing purchases throughout the marketing year—

Mr. BELL. Yes, sir.

Chairman HUMPHREY. And the Soviet weather bureau service is considered one of the best in the world, from what I understand.

Mr. BELL. As far as we can tell, it's always accurate and very much

on —

Chairman HUMPHREY. Do we get information regularly on this?

Mr. BELL. Yes; we do. We actually get it through the NOAA. You can call NOAA at any time and get a fairly current report on the weather situation in the U.S.S.R.

Chairman HUMPHREY. Do we have information as to how they use that weather information in their agricultural planning? Do they produce long-range forecasts that they rely on?

Mr. BELL. We find that they actually have a very detailed system of long-range weather forecasting. We have been told by them it is correct about one-third of the time.

Chairman HUMPHREY. Have we ever thought about the feasibility of a cooperative research project with Soviet scientists for the develop-

ment of regional models, regional crop yields, based on weather information?

Mr. BELL. Yes; we have. We actually have a project under the exchange agreement called forecasting; and this is—we have had one workshop on that with them and we intend to do further work in this general area.

Chairman HUMPHREY. Now, the United States has a trade target agreement with Japan, sort of a gentleman's agreement, as I understand it.

Mr. BELL. Best endeavor efforts, I call it.

Chairman HUMPHREY. Is it signed? Is it a formal document?

Mr. BELL. We have a press release and they have what they call a communique.

Chairman HUMPHREY. Now we have one being negotiated with the Soviets which will formally commit the United States to a long-term supply agreement totaling approximately 25 million tons of grain, or about one-third of our grain exports; is that correct?

Mr. BELL. Well, we are talking, sir, in the Soviet agreement of somewhere between five and eight.

Chairman HUMPHREY. Five and eight per year?

Mr. BELL. Which would be around 10 percent of our annual exports of grain, which is around—

Chairman HUMPHREY. How many million tons do the Japanese import?

Mr. BELL. The Japanese requirement is 14 million tons, including 11 of grain and 3 million of—

Chairman HUMPHREY. That equals between 22 and 24 million tons between the two.

Mr. BELL. And our West European exports in fact are up around 15 to 20 million tons. Again, you never hear anything about that.

Chairman HUMPHREY. That's right. How formally binding are these agreements?

Mr. BELL. Well, the one with the Japanese, as I have said, is the best endeavors. It in fact is not a binding agreement. I think in the case of the Soviet Union, it will probably be a more formal agreement and there will be a degree of binding commitment. How much, I think, we don't know at this stage.

Chairman HUMPHREY. Do you think other potential importers will seek similar agreements?

Mr. BELL. Yes; I do. We have already had a number of countries which have come to see us in the past several days asking when they can begin negotiations for their long-term agreements. Most of the countries that have come have been from the Western world and we in fact have told them, you know, that we don't really see a need for this with everyone. We do want to develop a system for the exchange of information; that we still believe in the multilateral world, not a bilateral world; the Soviet Union is unique; it is vast; it has concentrated purchasing power; they are not members of the general agreement on tariffs and trade; they are not living by the same trading rules, and so we think there needs to be something different there, but not, with everyone else.

Chairman HUMPHREY. Are they a member of the International Wheat Council?

Mr. BELL. They are a member of the International Wheat Council. Chairman HUMPHREY. Is the People's Republic of China?

Mr. BELL. China is not. We would hope under the new agreement that they might be.

Chairman HUMPHREY. Is there any chance that we can establish an exchange of information programs with the Chinese?

Mr. BELL. I think it would be very limited. I remember very well, Mr. Chairman, the discussion of this issue at the World Food Conference; and the Chinese said time after time that they looked upon the providing of this information as an infringement on their sovereignty.

Chairman HUMPHREY. I remember that.

Mr. BELL. And that they were not going to participate.

Chairman HUMPHREY. Of course, you never know when people will change their minds.

Mr. BELL. Right.

Chairman HUMPHREY. What safeguards have you instituted to assure that such agreements are not destabilizing in years when U.S. crop yields are unfavorable?

Mr. BELL. In the Soviet agreement, sir, we are intending to have what we call an escape clause mechanism which would provide for consultations to perhaps limit the purchases in the case of a short crop here in the United States or elsewhere. We have a safeguard clause.

Chairman HUMPHREY. Thank you very much for your comments, Mr. Secretary.

[The prepared statement of Secretary Bell follows:]

STATEMENT OF RICHARD E. BELL, ASSISTANT SECRETARY OF AGRICULTURE FOR INTERNATIONAL AFFAIRS AND COMMODITY PROGRAMS, U.S. DEPARTMENT OF AGRICULTURE

Mr. Chairman, I appreciate the opportunity to appear before the Technology Assessment Board—and to discuss efforts being made to improve the data going into our analysis of agriculture in the Soviet Union.

Since the Board also expressed interest in information exchange between our country and the People's Republic of China, let me say that this exchange is very limited. We have no formal arrangement to exchange production data with the PRC. There is, of course, the exchange of library materials and a limited exchange of agricultural teams and technicians.

For example, the Agricultural Officer at the U.S. Consulate in Hong Kong visited the People's Republic in the fall of 1974, and this was very useful. This Agricultural Officer and his assistant are both Chinese specialists, fluent in the language, and Hong Kong is an important listening post for us.

We also receive information through the U.S. Liaison Office in Peking, although we do not have an agricultural officer in that mission. We hope that our formal reporting of agricultural and trade data from the PRC can be strengthened in the near future through addition of an Agricultural Officer there.

We have in recent times been able to improve the Department of Agriculture's analysis of agricultural conditions in the USSR. This improvement is the result of two inclusions—data provided by the Soviets under the June 1973 Agreement on Agricultural Cooperation, and increased use of corroborative data from other sources, in particular U.S. programs to gather weather data.

In the past, USDA analysis of Soviet agricultural conditions, as for other nations, relied most heavily on reporting from the U.S. agricultural attache, reports from Soviet and other press outlets on agriculture, and publications provided by the foreign government. While these steps continue to play an important role, progress with the Soviets since 1973 is enabling the United States to obtain some information more quickly, and to expand our data bases. There remain, however, some areas in our analytical work, particularly in forward forecasting, where we

have not been able to implement the cooperation with Soviet officials which we desire.

The June 1973 Agreement on Agricultural Cooperation between the United States and USSR calls for the following:

"Regular exchange of relevant information, including forward estimates, on production, consumption, demand, and trade of major agricultural commodities."

The exchange of data is one of the activities under the Economic Information project, which was one of three (now four) established in November 1973 under the Joint Working Group on Agricultural Economic Research and Information. In November 1973, the USSR agreed to provide to the United States 10 categories of data on a regular reporting schedule. Additional requests for data were made at the May 1974 Working Group meeting and the Soviets responded by providing a reporting schedule for 8 categories of data at the October 1974 meeting.

On the whole, the Soviets have followed the reporting schedule rather closely for the initial 10 categories of data. Allowance must be made, of course, for delays in transmittal. The first-of-month livestock count, for example, which the Soviets have agreed to provide at mid-month, typically arrives in the analysts' offices during the first week of the following month. The usefulness of new data series has been limited in several instances because the Soviets frequently have not provided historical data in the series. In addition, there has been some feeling that the Soviet data are less detailed than was expected. More detailed data were shown to the U.S. delegation at the November 1973 Working Group meeting. The data that have been provided, however, technically appear to meet the specifications of the written reporting schedule that was included in the appendix to the protocol of that meeting.

Data received under the Agreement generally make a contribution in one of three categories. The first is quicker access to data on actual values (but not forward estimates) of commodity production or related information for the current or most recent year. For example, detailed crop production statistics are made available in February, whereas official publication generally does not occur before April. Likewise, monthly production and inventory data for livestock and poultry on state and collective farms enable a more frequent assessment of output possibilities in the food industry and in the livestock sector. Quicker access to data is helpful in the compilation of periodic statistical reports by USDA and research is facilitated by the rapid availability of data (as opposed to unofficial estimates) on production and utilization.

The second contribution is the receipt of some data not previously published on a systematic basis by the USSR. The reporting schedule provided by the Soviets in October 1974, in particular, contains several instances of new types of data. These include, for example, numbers of livestock slaughtered, oil meal production, and fertilizer use by major crops. These data will be quite useful in long-term quantitative research on the Soviet feed-livestock economy.

A third but—at this point—lesser contribution of the data is information of a very current nature that will enable a better assessment of foreign trade prospects in grains and feeds. These data now essentially are limited to the area statistics provided in August, which make a small contribution to current estimates on the supply side, and to the monthly data on collective and state farm livestock inventories, which make some contribution to evaluations of current feed demand.

Despite the relatively good performance of the Soviets in providing data in those categories for which a program has been worked out to implement provisions of the Agreement, there has been little progress in acquiring data to enable an improved assessment of current production and foreign trade prospects. The Soviets have not yet demonstrated willingness to implement the forward estimates provision of the Agreement. Efforts by the United States to attain implementation of this provision, on the whole, have thus far not been successful in attaining either the forward estimates or a schedule for their future supply. Efforts are continuing. Data acquired under the agreement probably will continue to make only a marginal contribution to current situation and outlook work on grains and feeds until a program is worked out to implement the provision of forward estimates.

Aside from the data requests, some additional progress has been made in the exchange of economic information under the Agreement. In 1975, three separate U.S. teams visited the USSR to tour growing areas and analyze production conditions for winter wheat, spring wheat, and sunflower. In addition, a U.S. team

on livestock and feed use went to the Soviet Union in early 1975. Although these teams had some itinerary difficulties, their acceptance was a considerable improvement over the one such team (winter wheat.) in 1974. These teams facilitate, but are not adequate for, estimates of Soviet crops.

Also, the Soviets have begun to accept the idea of regular bilateral discussions of agricultural production and trade at meetings under the Agreement, although Soviet presentations rarely have included outlook information. Perhaps most important, the range of contacts with Soviet officials in a wide variety of organizations dealing with agriculture has increased greatly under the current Agreement. The development of these relationships throughout the Soviet Government could eventually lead to a much wider exchange of information.

Inter-agency cooperation in the U.S. Government also makes an important contribution to USDA analysis of the Soviet situation. A prime example is in the gathering and application of weather data both to confirm Soviet reports and to assist in estimates of current Soviet crop prospects.

Weather data are used extensively in making forecasts of Soviet grain production. The principal source of weather data used by Soviet analysts in the Department of Agriculture is the Air Force Environmental Technical Application Center (ETAC). ETAC computerizes and processes raw weather data and provides average information on 27 regions within the USSR on precipitation (absolute and percent of average), temperature (absolute and departure from average), and calculated soil moisture (absolute and percent of average). Data are summarized and made available each 10 days, with the data generally available within 5 days at the end of the period. In addition, cumulative monthly and seasonal averages also are provided.

The ETAC weather data are supplemented by other sources. For example, more current, but less processed weather information is available daily through NOAA facilities. This information is checked to supplement ETAC data at critical stages of Soviet crop development.

The Soviets also publish 10 day weather and crop reports in their daily agricultural newspaper. The information in these reports generally is available in Washington within not more than one week of the end of the reporting period. The Soviet weather and crop reports are very selective in regional coverage, contain few data, and do not give crop forecasts. However, they are of some use in evaluating the stage of crop development and the probable impact of varying weather conditions on crops.

Reserchers in tile Department of Agriculture evaluate the weather data to estimate regional weather indexes of grain crops. These weather indexes are weighted by the regional area distribution and multiplied by trend yields of individual grains to estimate national grain yields. While results of statistical models are considered in constructing the regional weather indexes the indexes are judgmental. All other available information, however, is considered in the process of reaching these regional judgments. Although other information, such as Soviet press commentary on local grain conditions, is important, the weather data are by far the most important source of information used in making Soviet grain forecasts as the crop progresses.

In addition to improving the quality of data available to us on the Soviet Union, we have considerably strengthened our analysis of the data. This analysis, particularly crucial in this year of expanded Soviet import needs, has been helped a great deal by the work of an interagency task force, which we established in early 1973.

This task force on Soviet agriculture has provided a means of coordinating information on the Soviet Union and making this information public on a prompt and systematic basis. It includes representatives of four USDA agencies—the Foreign Agricultural Service, the Economic Research Service, the Agricultural Marketing Service, and the Agricultural Stabilization and Conservation Service. During the principal production and marketing season, it meets every two weeks under the chairmanship of the Director of the FAS Grain and Feed division.

Discussions within the Task Force have brought together information which has provided the basis for policy decisions within the Government this year, relative to the Soviet trade. It was this group that first alerted people within Government to the drought developing in the Soviet spring grain areas this year and then made this information public in a series of reports and releases.

As a result of the work of the Task Force, we believed quite early that the Soviets' 1975 grain production would fall below their goal of 21.5.7 million tons. In mid-April, about the time spring grains were being planted in the Soviet Union,

we projected the total 1975 grain crop of the Soviet Union at 210 million tons. Then, as crops were affected by hot weather and drought in major producing areas east of the Volga, we progressively lowered that estimate.

On June 9, we dropped the estimate to 200 million tons. And as the crop situation continued to decline, we reduced our estimate on July 9, again on July 24, and again on August 11. Our current estimate of 175 million tons was made on August 29. All of these estimates were immediately made public.

I should make the point that in the USSR—unlike the United States—spring grains make up from two-thirds to three-fourths of total grain production in most years. Continuous and careful evaluation is necessary though the summer and early fall, in order to keep us on top of the total grain situation. I believe that the Department of Agriculture has done an extremely good job in staying abreast of spring grain developments in the Soviet Union, and that the work of the USSR Grains Task Force has had a great deal to do with this.

Mr. Chairman, I will be pleased to respond to questions.

BACKGROUND STATEMENT ON U.S.-U.S.S.R. AGREEMENT OF COOPERATION FOR THE
TECHNOLOGY ASSESSMENT BOARD

(Prepared by Foreign Agricultural Service)

The Department of Agriculture's analysis of Soviet agricultural conditions¹ has improved as a result of two new inclusion-data provided by the Soviets under the June 1973 Agreement on Agricultural Cooperation, and increased use of corroborative data from other sources, in particular U.S. programs to gather weather data.

In the past, USDA analysis of Soviet agricultural conditions, as for other nations, relied most heavily on reporting from the U.S. Agricultural attache, reports from Soviet and other press outlets on agriculture, and publications provided by the foreign government. While these steps continue to play an important role, progress with the Soviets since 1973 is enabling the United States to obtain some information more quickly, and expand our data bases. There remain, however, some areas in our analytical work, particularly in forward forecasting, where we have not been able to implement the cooperation with Soviet officials which we desire.

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"Regular exchange of relevant information, including forward estimates, on production, consumption, demand, and trade of major agricultural commodities."

The exchange of data is one of the activities under the Economic Information project which was one of three (now four) established in November 1973 under the Joint Working Group on Agricultural Economic Research and Information. In November 1973, the USSR agreed to provide to the United States 10 categories of data on a regular reporting schedule. Additional requests for data were made at the May 1974 Working Group meeting and the Soviets responded by providing a reporting schedule for 8 categories of data at the October 1974 meeting.

On the whole, the Soviets have followed the reporting schedule rather closely for the initial 10 categories of data. Allowance must be made, of course, for delays in transmittal. The first-of-month livestock count, for example, which the Soviets have agreed to provide at mid-month, typically arrives in the USDA analysts' offices during the first week of the following month. The usefulness of new data series has been limited in several instances because the Soviets frequently have not provided historical data in the series. In addition, there has been some feeling that the Soviet data are less detailed than was expected. More detailed data were shown to the U.S. delegation at the November 1973 Working Group meeting. The data that have been provided, however, technically appear to meet the specifications of the written reporting schedule that was included in the appendix to the protocol of that meeting.

Data received under the Agreement generally make a contribution in one of three categories. The first is quicker access to data on actual values (but not forward estimates) of commodity production or related information for the current or most recent year. For example, detailed crop production statistics are made available in February, whereas official publication generally does not occur before April. Likewise, monthly output of inventory data enable a more frequent assessment of output possibilities in the food industry and in the livestock sector.

Quicker access to data is helpful in the compilation of periodic statistical reports by USDA and research is facilitated by the rapid availability of data (as opposed to unofficial estimates) on production and utilization.

The second contribution is the receipt of some data not previously published on any systematic basis by the USSR. The reporting schedule provided by the Soviets in October 1974, in particular, contains several instances of new types of data. These include, for example, numbers of livestock slaughtered, oil meal production, and fertilizer use by major crops. These data will be quite useful in long-term quantitative research on the Soviet feed-livestock economy.

A third, but—at this point—lesser contribution of the data is information of a very current nature that will enable a better assessment of foreign trade prospects in grains and feeds. These data now essentially are limited to the sown area statistics provided in August, which make a small contribution to current estimates on the supply side, and to the monthly data on collective and state farm livestock inventories, which make some contribution to evaluations of current feed demand.

Despite the relatively good performance of the Soviets in providing data in those categories for which a program has been worked out to implement provisions of the Agreement, there has been little progress in acquiring data to enable an improved assessment of current production and foreign trade prospects. The Soviets have not yet demonstrated willingness to implement the forward estimates provision of the Agreement. Efforts by the United States to attain implementation of this provision, on the whole, have thus far not been successful in attaining either the forward estimates or a schedule for their future supply. Efforts are continuing. Data acquired under the agreement probably will continue to make only a marginal contribution to current situation and outlook work on grains and feeds until a program is worked out to implement the provision of forward estimates.

Aside from the data requests, some progress has been made in the exchange of economic information under the Agreement. Three separate teams to tour growing areas and analyze production conditions for winter wheat, spring wheat, and sunflowers visited the USSR in 1975. In addition, a team on livestock and feed ^{use visited} in early 1975. Although these teams had some itinerary difficulties, their acceptance was a considerable improvement over the one such team (winter wheat) in 1974. These teams facilitate, but are not sufficiently adequate for, estimates of Soviet crops. The Soviets also have begun to accept the idea of regular bilateral discussions of agricultural production and trade at meetings under the Agreement, although Soviet presentations rarely have included outlook information. Perhaps most important, the range of contacts with Soviet officials in a wide variety of organizations dealing with agriculture has increased greatly under the current Agreement. The development of these relationships throughout the Soviet bureaucracy could eventually lead to a much wider exchange of information.

Inter-agency cooperation in the U.S. Government also makes an important contribution to USDA analysis of the Soviet situation. A prime example is in the gathering and application of weather data to both confirm Soviet reports and assist in making estimates of current Soviet production prospects.

Weather data are used extensively in making forecasts of Soviet grain production. The principal source of weather data used by Soviet analysts in the Department of Agriculture is the Air Force Environmental Technical Application Center (ETAC). ETAC computerizes and processes raw weather data and provides average information on 27 regions within the USSR on precipitation (absolute and percent of average), temperature (absolute and departure from average), and calculated soil moisture (absolute and percent of average). Data are summarized and made available each 10 days, with the data generally available within 5 days at the end of the period. In addition, cumulative monthly and seasonal averages also are provided.

The ETAC weather data are supplemented by other sources. For example, more recent, but less processed weather information is available daily through NOAA facilities. This information is checked to supplement ETAC data at critical stages of Soviet crop development.

The Soviets also publish 10 day weather and crop reports in their daily agricultural newspaper. The information in these reports generally is available in Washington at least within one week of the end of the reporting period. The Soviet weather and crop reports are very selective in regional coverage, contain few data, and do not give crop forecasts. However, they are of some use in

evaluating the stage of crop development and the probable impact of varying weather conditions on crops.

Researchers in the Department of Agriculture evaluate the weather data to estimate regional weather indexes of grain crops. These weather indexes are weighted by the regional area distribution and multiplied by trend yields Of individual grains to estimate national grain yields. While results of statistical models are considered in constructing the regional weather indexes, the indexes largely are judgmental. All other available information, however, is considered in the process of reaching these regional judgments. Although other information, such as Soviet press commentary on local grain conditions, is important, the weather data are by far the most important source of information used in making Soviet grain forecasts as the crop progresses.

COOPERATION IN AGRICULTURE

Agreement Between the
UNITED STATES OF AMERICA
and the UNION OF SOVIET
SOCIALIST REPUBLICS

Signed at Washington June 19, 1973



NOTE BY THE DEPARTMENT OF STATE

Pursuant to Public Law 89-497, approved July 8, 1966 (80 Stat. 271; 1 U.S.C. 113)—

" . . . the Treaties and Other International Acts Series issued under the authority of the Secretary of State shall be competent evidence . . . of the treaties, international agreements other than treaties, and proclamations by the President, of such treaties and international agreements other than treaties, as the case may be, therein contained, in all the courts of law and equity and of maritime jurisdiction, and in all the tribunals and public offices of the United States, and of the several States, without any further proof or authentication thereof."

UNION OF SOVIET SOCIALIST REPUBLICS

Cooperation in Agriculture

***Agreement signed at Washington June 19, 1973;
Entered into force June 19, 1973.***

(1)

TIAS 7%50

AGREEMENT BETWEEN
THE GOVERNMENT OF THE UNITED STATES OF AMERICA AND
THE GOVERNMENT OF THE UNION OF SOVIET SOCIALIST REPUBLICS
ON COOPERATION IN THE FIELD OF AGRICULTURE

The Government of the United States of America and the
Government of the Union of Soviet Socialist Republics;

Taking into account the importance which the production of
food has for the peoples of both countries and for all of mankind;

Desiring to expand existing cooperation between the two
countries in the field of agricultural research and development;

Wishing to apply new knowledge and technology in agricultural
production and processing;

Recognizing the desirability of expanding relationships in
agricultural trade and the exchange of information necessary
for such trade;

Convinced that cooperation in the field of agriculture will
contribute to overall improvement of relations between the two
countries;

In pursuance and further development of the Agreement between
the Government of the United States of America and the Government
of the Union of Soviet Socialist Republics on Cooperation in the
Fields of Science and Technology of May 24, 1972, [1] and in accordance
with the Agreement on Exchanges and Cooperation in Scientific,
Technical, Educational, Cultural and other Fields of April 11,
1972, [2] and in accordance with the Agreement on Cooperation in the
Field of Environmental Protection of May 23, 1972; [3]

Have agreed as follows:

¹ TIAS 7346; 23 UST 856.

² TIAS 7347; 23 UST 700.

³ TIAS 7345; 23 UST 845.

ARTICLE I

The Parties will develop and carry out cooperation in the field of agriculture on the basis of mutual benefit, equality and reciprocity.

ARTICLE II

The Parties will promote the development of mutually beneficial cooperation in the following main areas:

1. Regular exchange of relevant information, including forward estimates, on production, consumption, demand and trade of major agricultural commodities.
2. Methods of forecasting the production, demand and consumption of major agricultural products, including a conometric methods.
3. Plant science, including genetics, breeding, plant protection. and crop production, including production under semi-arid conditions.
4. Livestock and poultry science, including genetics, breeding, physiology, nutrition, disease protection and large-scale operations.
5. Soil science, including the theory of movement of water, gases, salts, and heat in soils.
6. Mechanization of *agriculture*, including development and testing of new machinery, equipment and technology as well as repair and technical service.
7. Application, storage and transportation of mineral fertilizers and other agricultural chemicals.
8. Processing, storage and preservation of agricultural commodities, including formula feed technology.

9. Land reclamation and reclamation engineering, including development of *new* equipment, designs and materials.
10. Use of mathematical methods and electronic computers in agriculture, including mathematical modeling of large-scale agricultural enterprises.

Other areas of cooperation may be added by mutual agreement.

ARTICLE III

Cooperation between the Parties may take the following forms:

1. Exchange of *scientists*, specialists and trainees.
2. Organization of bilateral symposia and conferences.
3. Exchange of scientific, technical and relevant economic information, and methods of research.
4. Planning, development and implementation of joint projects and programs.
5. Exchange of plant germ plasm, seeds and living material.
6. Exchange of animals, biological materials, agricultural chemicals, and models of new machines, equipment and scientific instruments.
7. Direct contacts and exchanges between botanical gardens.
8. Exchange of agricultural exhibitions.

Other forms of cooperation may be added by mutual agreement.

ARTICLE IV

1. In furtherance of the aims of this Agreement, the Parties will, as appropriate, encourage, promote and monitor the development of cooperation and direct contacts *between*

governmental and nongovernmental institutions, research and other organizations, trade associations, and firms of the two countries; including the conclusion, as appropriate, of implementing agreements for carrying out specific projects and programs under this Agreement.

2. *To assure* fruitful development of cooperation, the parties will render every assistance for the travel of scientists and specialists to areas of the two countries appropriate for the conduct of activities under this Agreement.

3. Projects and exchanges under this Agreement will be carried out in accordance with the laws and regulations of the two countries.

ARTICLE V

1. For implementation of this Agreement, there shall be established a US-USSR Joint Committee on Agricultural Cooperation which shall meet, as a rule, once a year, alternately in the United States and the Soviet Union, unless otherwise mutually agreed.

2. The Joint Committee will review and approve specific projects and program of cooperation; establish the procedures for their implementation; designate, as appropriate, institutions and organizations responsible for carrying out cooperative activities; and make recommendations, as appropriate, to the Parties.

3. Within the framework of the Joint Committee there shall be established a Joint Working Group on Agricultural Economic Research and Information and a Joint Working Group on Agricultural

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Research and Technological Development. Unless otherwise mutually agreed, each Joint Working Group will meet alternately in the United States and the Soviet Union at least two times a year. The Joint Committee may establish other working groups as it deems necessary.

4. The Executive Agents *for* coordinating and carrying out this Agreement shall be, *for* the Government of the United States of America, the United States Department of Agriculture, and for the Government of the Union of Soviet Socialist Republics, the Ministry of Agriculture of the USSR. The Executive Agents will, as appropriate, assure the cooperation in their respective countries of other institutions and organizations as required for carrying out joint activities under this Agreement. During the period between meetings of the Joint Committee, the Executive Agents will maintain contact with each other and coordinate and supervise the development and implementation of cooperative activities conducted under this Agreement.

ARTICLE VI

Unless an implementing agreement contains other provisions, each Party or participating institution, organization or firm, shall bear the costs of its participation and that of its personnel in cooperative activities engaged in *under* this Agreement.

ARTICLE VII

1. Nothing in this Agreement shall be interpreted to prejudice Or modify any existing Agreements between the Parties.

2. Projects developed by the US-USSR Joint Working Group on Agricultural Research which were approved at the first session of the US-USSR Joint Commission on Scientific and Technical Cooperation on March 21, 1973, will continue without interruption and will become the responsibility of the US-USSR Joint Committee on Agricultural Cooperation upon its *formal* establishment.

ARTICLE VIII

1. This Agreement shall enter into force upon signature and remain in force for five years. It will be automatically extended for successive five-year periods unless either Party notifies the other of its intent to terminate this Agreement not later than six months prior to the expiration of this *Agreement*.

2. This Agreement may be modified at any time by mutual agreement of the Parties.

3. The termination of this Agreement will not affect the validity of implementing agreements concluded under this Agreement between institutions, organizations and firms of the two countries

DONE at Washington, this 19th day of June, 1973,
in duplicate, in the English and Russian languages, both texts
being equally authentic.

FOR THE GOVERNMENT OF THE
UNITED STATES OF AMERICA:

FOR THE GOVERNMENT OF THE UNION
OF SOVIET SOCIALIST REPUBLICS:

Earl L. Butz ^[1]

A. Gromyko ^[2]

¹ Earl L. Butz
² A. Gromyko