METHYL BROMIDE: UPDATE ON ACHIEVING THE REQUIREMENTS OF THE CLEAN AIR ACT AND THE MONTREAL PROTOCOL

HEARING

BEFORE THE

SUBCOMMITTEE ON ENERGY AND AIR QUALITY

OF THE

COMMITTEE ON ENERGY AND COMMERCE

HOUSE OF REPRESENTATIVES

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WEDNESDAY, JULY 21, 2004

HOUSE OF REPRESENTATIVES,
COMMITTEE ON ENERGY AND COMMERCE,
SUBCOMMITTEE ON ENERGY AND AIR QUALITY,
Washington, DC.

The subcommittee met, pursuant to notice, at 11 a.m., in room 2322, Rayburn House Office Building, Hon. Ralph M. Hall (chairman) presiding.

Members present: Representatives Hall, Whitfield, Norwood, Shimkus, Radanovich, Bono, Issa, Otter, Allen, Waxman, Capps, and Davis.

Also present: Representative Foley.

Staff present: Mark Menezes, majority counsel; Bob Rainey, fellow; Kurt Bilas, majority counsel; Margaret Caravelli, majority counsel; Michael Goo, minority counsel; and Bruce Harris, minority counsel.

Mr. HALL. The subcommittee will please come to order. Without objection, the subcommittee will proceed pursuant to Committee Rule 4(e), which governs opening statements by members and the opportunity to defer them for extra questioning time.

Hearing no objection, prior to the recognition of the first witness for testimony, any member, when recognized for an opening statement, may defer his or her 3-minute opening statement and instead have 3 additional minutes during the initial round of witness questioning. It is not out of reason that you would get those 3 minutes anyway, if you wanted them. We appreciate you being here.

These meetings usually are limited to just a few members because it is near the end of the last week for a month and a half, and they have a lot of other committees to attend. So, I recognize myself for an opening statement.

I want to welcome all of our witnesses here today, and thank them for taking the time out of their busy schedules to testify before this subcommittee. I would like to recognize and welcome Congressman Foley—is he here? Congressman Foley will be here, from Florida. He has requested the opportunity to sit in on the hearing. With that, I will waive my opening and we will get underway, and recognize Mr. Allen for his opening statement.

Mr. ALLEN. Thank you. Thank you, Mr. Chairman, for holding this hearing. I appreciate the chairman's efforts to bring a balanced panel here today. Our witnesses represent agricultural interests,

the Federal Government, the environmental community, and industry. I understand from the majority that all the witnesses will remain here until they are dismissed by the chairman. In the recent past, witnesses left the subcommittee before responding to questions from members, and I trust that all witnesses will respond to questions from all members that wish to ask them.

Is there an international treaty the Bush Administration likes? The Montreal Protocol is one of the most successful international environmental regimes ever created. The treaty, negotiated by the Reagan Administration, phases out the use of chemicals that damage the ozone layer. It has markedly slowed the depletion of earth's stratospheric protective shield, however, we are by no means out of the woods.

NASA, NOAA, and the Naval Research Laboratory report that last year's ozone hole grew to 10.9 million square miles, an area larger than all of North America and the second largest ever reported.

The Montreal Protocol depends on its 187 ratifying countries to comply with mandatory phaseouts of ozone-depleting substances. With little enforcement mechanism, if any single Party fails to comply with the regime, the regime may fail. The treaty allows for exemptions to its chemical use bans in situations where the chemicals are considered to be of critical use. Clearly, it makes sense to allow some exemptions to an all-out ban, but exemptions have the potential to be abused, defeating the effectiveness of the entire regime. Methyl bromide is a powerful ozone-depleting gas and we should be working to minimize its use.

In February, the United States was one of 12 nations to demand and receive a 1-year critical use exemption for methyl bromide from the limits in the Montreal Protocol. According to the U.N. environmental program, the exemptions for the 12 nations total 13,438 metric tons. The U.S. allowance of 8,942 metric tons is about twice that of all the 11 other countries combined, but the administration wants a larger exemption. For 2006, the Bush Administration seeks to increase our waiver from 35 percent to 37 percent of the methyl bromide the Nation used in 1981. Some accounts suggest that 37 percent exceeds our current level of use, permitting this country to actually increase emissions.

Why does the United States need to increase its allowable methyl bromide use above the 35 percent of the 1991 baseline level that it agreed to in February? What possible economic interest can be more important than getting rid of ozone-depleting substances? We need the best information these panelists can give us.

The threat of ozone depletion is known, it is real, and we must uphold our commitment to address it. We need to meet the deadline set within the Montreal Protocol, and encourage other countries to do the same.

I thank all of the witnesses for being here. I look forward to your testimony and, with that, Mr. Chairman, I yield back.

Mr. RADANOVICH [presiding]. Thank you, Mr. Allen. I want to make a brief opening statement, then I will allow the others to do it as well.

I want to thank in particular Chairman Hall for calling this most important hearing. And I want to first welcome my constituent,

Paul Wenger, of Stanislaus County. Paul is a walnut and almond farmer in my district, and I look forward to his testimony. Welcome, Paul.

The hearing today is about the process taking place within the Montreal Protocol with respect to the critical use exemptions, or CUEs, from methyl bromide. Many of us were here last year when we discussed the uses of methyl bromide, and we learned about what to expect during the critical use exemptions process at the Montreal Protocol. Now that the process is underway, I have some serious doubts with the direction that it is headed.

First, I fear the process has become extremely politicized, and that Protocol is moving away from science-based decisions given some statements to that effect in the February 2004 T-Report. Additionally, I've heard some comments from folks from the U.S., who have been at these Montreal Protocol meetings, who say that International Delegation members have said point blank that they are awaiting the election of a new U.S. President in order to achieve their agenda within the Protocol.

I am also disturbed that the goalpost seems to be moving at the Protocol. At the most recent meeting of the Protocol, a consumption and production limit for methyl bromide was set. This was disconcerting because the Protocol itself states CUEs should be granted according to consumption and not production. So, it doesn't make sense to me for the Protocol to address this issue that is outside the terms of the treaty.

Furthermore, I want to encourage our negotiators to continue to fight for a multiple-year CUE. Farmers in the U.S. need more certainty and reliability until a reasonable substitute can be found than the 1-year CUE that was granted recently in Montreal.

Finally, as many of you know, I have sponsored H.R. 3403, which is a bill to ensure the critical uses of methyl bromide, as approved by the EPA, are available in the United States after the 2005 phaseout of the chemical, regardless of what the Protocol decides. I want to make it clear that I am open to suggestions and comments regarding my legislation. It certainly is not a perfect solution to our CUE concerns, but I still believe it opens the discussion to address the difficulties for the United States and what it faces at the Montreal Protocol.

Again, I want to thank Chairman Hall, and will recognize Ms. Capps from California.

Ms. CAPPS. Thank you, Mr. Chairman. I understand the difficulty facing our growing and farming communities with the phaseout of methyl bromide. It is important for the production of many important farm products, including strawberries and cut flowers, both important in my district in California. But as a public health nurse, I do worry about methyl bromide's highly toxic nature and the harmful effects its continued use poses to our ozone layer.

Methyl bromide is designated a Class I acute toxin by the EPA, and is known to be hazardous to the health of farm workers who work in the fields where it is applied. In fact, last year, in a troubling report, the National Cancer Institute linked methyl bromide to increased rates of prostate cancer in product handlers. In addition to those directly involved with this application, the pesticide

is often used in fields that are near homes and schools, exposing school children and families through air and water pollution, and causing eye and skin irritations, dizziness, headaches, and other health-related problems. This is an immediate concern for the health of my constituents, many of whom live in close proximity to the fields where methyl bromide is still in current use.

In addition to endangering human health, methyl bromide is the most powerful ozone-depleting chemical still in use. Its continued use will widen the hole in the ozone layer, increasing ultraviolet radiation and potentially causing an increase in skin cancer and other serious illnesses.

Fortunately, over the past decade, great progress has been made under the Clean Air Act and the Montreal Protocol to phaseout production of methyl bromide. Production has been cut 70 percent in industrialized countries since 1999 under the Treaty's timetable. Unfortunately, the administration's recent proposal for critical use exemptions would reduce these gains and cause methyl bromide production and use to start rising again.

The administration's most recent request totaling 39 percent greatly exceeds the limits now allowable under the Treaty. Importantly, it is far beyond what is actually being consumed by methyl bromide users in this country today. According to EPA's own data, methyl bromide consumption in 2003 was just 25 percent of 1991 baseline levels, even though the Treaty and the Clean Air Act permit up to 30 percent. In other words, Mr. Chairman, methyl bromide users do not even consume as much methyl bromide as this administration is seeking for them, and that is why this request for increase is so troubling. The Bush Administration is again undermining a successful international environmental treaty. It also continues to punish responsible users in this country who have invested time and money into adopting safer alternatives, and the administration's actions encourage growers and others to continue to use this dangerous pesticide instead of prompting them to find safer alternatives.

Mr. Chairman, since coming to Congress, I have worked to find a balance between the needs of growers in my district and public health concerns. I have assisted farm groups and key stakeholders with their transition away from methyl bromide. In California, these growers are employing crop management techniques and using other fumigants. More specifically, organic growers have proven that fruits and vegetables can be grown without pesticides, and that consumers will rush to purchase them. From the point of view of protecting communities, farm workers and the atmosphere, the only acceptable plan should be to continue the phaseout of methyl bromide with all deliberate speed. Under no circumstances should we adopt legislation that prevents us from achieving such a goal.

Thank you again for holding this hearing, and I do look forward to hearing our witnesses.

Mr. RADANOVICH. Thank you, Ms. Capps. The Chair recognizes Mr. Otter from Idaho.

Mr. OTTER. Mr. Chairman, I am going to submit my formal statement for the record, and ask that it be included, and just use my time to make a couple of observations, and one of them would be

that you can't have it both ways. We can't be complaining 1 day about all the outsourcing that is going on in the United States, all the food processors that happen to be moving to Canada and Mexico and other places, and then turn around in the same week but a day later and complain about some of the tools that our farmers and our producers most effectively use, and I suspect that even the outsourcing could be handled for flowers and strawberries, and I suspect that they would be eventually.

So, I would hope that we would try to be a little bit consistent with a national view and a broader view of what it needs to make this country go. And with that, Mr. Chairman, I yield back my time.

[The prepared statement of Hon. C.L. "Butch" Otter follows:]

PREPARED STATEMENT OF HON. C.L. "BUTCH" OTTER, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF IDAHO

Thank you, Mr. Chairman, for holding this hearing today. I am glad the committee has taken this opportunity to get an update on the international discussions regarding the use of methyl bromide. This is a timely hearing on an issue that could have a significant impact on agriculture production in the United States.

About this time last year the committee held a hearing on the issues associated with methyl bromide. We talked about the importance of methyl bromide to many agriculture producers and food processors. The importance of this fumigant remains the same, so I won't restate my earlier comments. However, I continue to have concerns that American efforts to comply with the Montreal Protocol will remove a valuable tool for our farmers.

I said this last year but I will repeat it again. The United States enjoys a safe and relatively cheap food supply. If we want to maintain that safe and cheap supply, we cannot institute policies that drive American producers out of business.

I remain concerned with the trade and international agreements that the United States has signed which allow foreign competitors to use products that are disallowed in this country. There is a competitive advantage for farmers in countries where methyl bromide is allowed. It is unfair to ask our farmers to compete with producers in those countries. My concerns with the implementation of existing agreements make it very difficult for me to support future agreements that this administration is asking the committee to consider.

Mr. Chairman, I look forward to the testimony from the witnesses. I also would like to work with the Committee to find a solution to the situation in which the Montreal Protocol has placed American farmers.

Mr. RADANOVICH. Thank you, Mr. Otter. Mr. Waxman.

Mr. WAXMAN. Thank you, Mr. Chairman. On April 5, 1988, President Ronald Reagan signed the Montreal Protocol on substances that deplete the ozone layer. On October 26, 1990, the House of Representatives voted 401 to 25 to pass the Clean Air Act and implement the Montreal Protocol. And then in 1990, on November 15, President George H.W. Bush signed into law the implementing legislation for the Montreal Protocol. It is a remarkable story of bipartisan achievement and environmental victory. The United States demonstrated that we were able to work together and with the international community to answer an environmental problem that threatened the entire planet, and for 15 years this bipartisan approach has been working to phaseout ozone-depleting chemicals and to protect and restore the ozone layer, but now we are told that could change.

At this subcommittee's hearing on methyl bromide last year, we first learned that the Montreal Protocol might be under threat by the House Republican leadership. Chairman Barton issued what amounted to an ultimatum to the international community. He

suggested that if these exemptions were not issued, this subcommittee would move legislation to grant exemptions presumably even if it takes the United States out of compliance with the Montreal Protocol. This didn't appear to be an idle threat.

On October 29, 2003, Representative Radanovich introduced legislation which would authorize methyl bromide use regardless of the Montreal Protocol. This Protocol has the flexibility necessary to address appropriate needs for methyl bromide until alternatives are identified. We have every reason to believe that the exemption process works. After all, the United States was a leader in developing and drafting every detail of the Protocol. Moreover, it appears that the administration has been using questionable numbers to advance its case for exemption, and I hope this committee will get the facts straight.

Today, we are going to hear from David Doniger of the Natural Resources Defense Council. Mr. Doniger will testify that actual methyl bromide use is far below what industry and the administration have insisted they need.

I want to put into the record, Mr. Chairman, if I might, a letter from Senators Jeffords, Sarbanes, Lautenberg, and Lieberman, on this important issue.

Mr. RADANOVICH. Without objection, so ordered.

[The information referred to follows:]

United States Senate

WASHINGTON, DC 20510

July 15, 2004

The Honorable L. Colin Powell
U.S. Department of State
2201 C Street, NW
Washington, D.C. 20520

The Honorable Michael O. Leavitt
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Washington, D.C. 20460

Dear Secretary Powell and Administrator Leavitt:

We are very concerned to learn that the Administration has pursued increases in the use and production of the ozone-depleting substance methyl bromide beyond the level allowed by the Montreal Protocol and the Clean Air Act. In fact, it appears that the Administration may have intentionally portrayed the situation to both Congress and other parties to the Protocol in an inaccurate and suspect fashion.

According to recent documents that the Environmental Protection Agency (EPA) provided to the Natural Resources Defense Council (see attached), methyl bromide use in the United States for 2003 was 7,674 metric tons or 30.06% of 1991 baseline levels. This number includes 6,507 metric tons of actual consumption (25% of baseline), which under the Montreal Protocol includes production plus any imports minus any exports, and 1,167 metric tons of "drawdown" (5% of baseline), which presumably came from existing stockpiles.

These numbers are extremely troubling in light of the fact that in November 2003 the United States requested a critical use exemption for 2004 of 39% of 1991 baseline levels. According to the U.S. delegation, this amount represented the minimum necessary to meet the needs of U.S. agricultural producers. When the Conference of Parties (COP) balked at the request, the U.S. walked away from the negotiations, suggesting that the COP was being unreasonable.

The U.S. posture necessitated an extraordinary meeting of the parties, which was convened in Montreal in March 2004. At that meeting, the United States again took the position that its original request of 39% was absolutely necessary to meet its needs. It also sought a multi-year exemption schedule. Based on an assessment from one of the technical committees charged with reviewing applications for critical use exemptions, the COP granted the U.S. a critical use exemption for 2004 of 35% of 1991 baseline levels, which included a cap on new production equivalent to 30% of the 1991 baseline. The COP also left open the possibility of granting the U.S. an additional 2% exemption based on a supplemental request. At the time, supporters of the treaty expressed gratitude that the United States had not maintained an unduly rigid negotiating posture and had acceded to the will of the parties.

Yet, it now appears that the United States may not have been negotiating in good faith. Indeed, when we compare the 2004 requests to the 2003 numbers contained in the EPA documents provided to the Natural Resources Defense Council, it is clear that the United States was asking for significantly more in 2004 than it actually used in 2003. As you know, the objective of the Protocol is to phase out methyl bromide use. Indeed, under the original phase-out schedule, the United States was supposed to end all methyl bromide use in 2005. But it now looks as if the United States may actually be adding to the existing stockpile of methyl bromide rather than drawing it down as part of the phase out.

Moreover, the fundamental premise of the critical use exemption process is that a particular party will not apply for an amount in excess of that which it absolutely needs and that existing stockpiles should be used before allowing any new production. The process was never intended to serve as a vehicle for producing and stockpiling methyl bromide in excess of actual use.

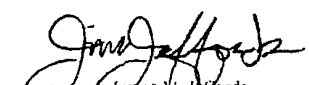
Given this information, we request your prompt response to the following questions:

(1) When did the EPA compile the actual use numbers for 2003?
(2) Was this information, or some reasonable estimation thereof, made available to the State Department, USDA, and/or the White House as preparation for the November 2003 COP meeting in Nairobi?
(3) Was this information, or some reasonable estimation thereof, made available to the State Department, USDA, and/or the White House as preparation for the March 2004 ExMOP in Montreal?
(4) Was this information, or some reasonable estimation thereof, made available to the State Department, USDA, and/or the White House as preparation for the July 2004 working group meeting in Geneva?
(5) If the information, or some reasonable estimation thereof, was not transmitted to those responsible for fashioning and negotiating the official U.S. request for a critical use exemption for methyl bromide, what was the reason or reasons?

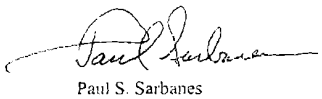
Finally, as you may recall, Senator Jeffords, as ranking member of the Senate Committee on Environment and Public Works, has an outstanding document request dating from February 2003 that the Administration has so far refused to honor and which concerns the amount of methyl bromide currently stockpiled in the United States. This information appears to have been redacted from the documents that the EPA provided to the Natural Resources Defense Council, presumably because of its supposed confidential nature. We note, as has been noted before, that such restrictions do not apply to Congressional requests. But even if the Administration and the EPA continue to insist on treating Senator Jeffords' request in this manner, no effort appears to have been made to follow standard agency procedures to determine whether in fact such information merits the status of confidential business information.

We look forward to your prompt reply. We expect you and all members of the Administration to act in accordance with our international treaty obligations and the requirements of the Clean Air Act.

Sincerely,

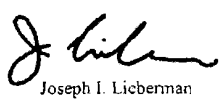


James M. Jeffords



Paul S. Sarbanes

Frank R. Lautenberg



Joseph I. Lieberman

Mr. WAXMAN. I hope this hearing will demonstrate how unwise this approach would be, and will lead members who support violating the Montreal Protocol to rethink their position. Thank you, Mr. Chairman.

Mr. RADANOVICH. Thank you, Mr. Waxman. Ms. Bono.

Ms. BONO. Thank you, Mr. Chairman. I will waive my opening statement in the hope that I get more time for questioning.

Mr. RADANOVICH. Certainly. Thank you very much. Mr. Whitfield.

Mr. WHITFIELD. I will waive my opening statement.

Mr. RADANOVICH. Thank you. Anybody else wanting to do an opening statement? Mr. Norwood.

Mr. NORWOOD. Thank you very much, Mr. Chairman. I appreciate your holding this important hearing today. I obviously take great interest in today's subject for all the farmers of the Ninth District of Georgia, and that is my responsibility as well as what is in the best interest of this country. I would put at the very end of my priority list the prosperity of farmers in developing countries who are getting a helping hand from the Montreal Protocol in phasing out their use of methyl bromide to the detriment of all of our farmers.

I would like to remind everyone here that the use of methyl bromide has already been reduced by approximately 60 to 70 percent from the 1991 base levels, but we have still not put a finger on good economic alternatives for our farmers.

In reading through the testimony for today's hearing, I noticed an excellent statement by Mr. Bair, where he said, "If agriculture improved processing use of methyl bromide are very harmful to the environment, that it should be banned globally on the same date." And I couldn't agree with Mr. Bair more, it is simply not fair to put pressure on our farmers to cutoff their use of methyl bromide earlier than their competitors in the developing countries.

I am pleased to be a co-sponsor of H.R. 3403, sponsored by my friend from California, Mr. Radanovich. This bill restores some sovereignty to the U.S. and our farmers, by authorizing the production of methyl bromide in the same amount requested by the United States under the critical use exemption process of the Montreal Protocol, even if the Parties to the Protocol do not approve of the entire amount.

Today, I encourage my colleagues on the subcommittee to listen very closely to how our farmers, American farmers and growers are being treated by the Montreal Protocol. If they are being treated as I suspect, it is time we get out of this agreement.

Thank you, Mr. Chairman, and I yield back what time I have.

Mr. HALL. The Chair recognizes the gentleman from California, Mr. Issa.

Mr. ISSA. Thank you, Mr. Chairman. Thank you for holding this hearing. I will put most of my formal opening statement in the record, to save time, but I would like to note that on the second panel, Dr. Michael Mellano will be testifying, and he has been a key resource for those of us who need to learn more about agriculture. It is the largest part of my district. Dr. Mellano not only operates 625 acres in Southern California, most of it in my district, but the type of area he is in, the nursery business and the like, is California's fourth largest industry, and it is the largest agricultural producer in my district. And as we all agree that methyl bromide does need to be phased out, I want to join with the other members of the subcommittee in recognizing that it should have been, and should be done, at a single time, and it should be done when science permits alternatives, something that I think all of us on this panel can agree with. And with that, I yield back, and put the rest in the record.

Mr. HALL. Thank you. I recognize myself for as much time as I may require, and I will not require too much.

The issue of methyl bromide is, of course, obviously very important to many members of the committee and to many members of the House. This is the second hearing we have had on this issue in a year, which I think attests to the importance. And I want to thank Ranking Member Boucher, and the entire staff over there, for their good assistance and cooperation, which speaks, I think, to the bipartisan nature of the issue that we are discussing.

We need to gain a fuller understanding of the current status of methyl bromide under the Montreal Protocol and the Clean Air Act. We also need to understand the progress being made to develop effective and economically competitive alternatives to methyl bromide.

The use of methyl bromide is critically important to many of our farmers and others involved in the Nation's agricultural businesses. This is due to its superiority to existing alternatives, and many applications and lack of alternatives are a substitute for many of these applications.

As we on this committee are already keenly aware, the Montreal Protocol requires the phaseout of methyl bromide by 2005, except for certain critical uses. It is on the critical use exemptions under the Protocol that we will focus much of our attention here today, however, we are just as keenly interested in the progress being made to provide effective and economically competitive alternatives to methyl bromide, and want to hear what the witnesses have to say about them.

We asked representatives of the administration to come here today to provide an update on the activities under the Protocol with regard to methyl bromide. I understand members are very interested in how the administration developed the recommendation

for the critical use exemption for 2005. Members want to know how and why the United States' request was scaled back. We are also asking these witnesses to report on the current status of international negotiations under the Protocol, the results of the meetings in Geneva last week in preparing for the meeting of the parties, and to brief us on the status of the upcoming meeting of the Parties to the Montreal Protocol scheduled for this fall. As well, we are interested in learning more about the use of methyl bromide outside the United States. It is obvious that the uncertainty over future availability of methyl bromide has caused great concern.

Therefore, as you give your oral testimony and answer our questions from both sides, please consider ways that this committee might help. We need your help to ensure that the U.S. obtains an adequate critical use exemption under the Protocol. That is the reason we have you here, you men and women who know more about this than we do. That is the way we write legislation, and you are giving us a base to go to when we get ready to try to get to the finality of it.

After today's hearing, I fully expect that my colleagues and myself will have additional questions, and it is my intention to leave the record open for a record period of time, to accommodate the sending and receiving of questions and answers, as well as other information and testimony that the subcommittee may receive. So, you all probably will be getting other letters, and we ask you to expedite the return of them, if you possibly can. It would be very helpful.

As was emphasized in last year's hearing on methyl bromide, we need to let the facts tell the story, and let any policy judgments flow from accurate information. Any additional action by the committee will be based to a large part on the information we hear today and from the follow-up information we receive from witnesses. In the House of Representatives, the matter of the Montreal Protocol in Title 6 of the Clean Air Act is within the sole jurisdiction of the Energy and Commerce Committee, and this subcommittee in particular.

So, we are all aware that the Montreal Protocol is an international treaty that was ratified by the Senate in 1986 and 1988. This Treaty has been amended two times and ratified by the Senate in 1991 and 1994. Protection of our Nation's agricultural business is serious business. You can be assured that the subcommittee is going to approach this issue and any other issue respecting the Treaty signed by President Reagan and by President Bush Sr.

With that, I will yield back whatever time I had, and we will now go to our distinguished witnesses.

[Additional statements submitted for the record follow:]

PREPARED STATEMENT OF HON. STEVE BUYER, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF INDIANA

In 1987 President Ronald Reagan signed the Montreal Protocol, an international treaty designed to eliminate the production of ozone-depleting substances. The implementation of the Protocol has maintained a delicate balance between the need to phase out substances, such as methyl bromide, which are harmful to the environment while protecting the agricultural communities of the signatory nations by identifying critical use exemptions from phase-outs where adequate substitutes do not yet exist. This process melds environmental and economic factors in order to cost

effectively manage our way towards feasible solutions. The current process works and has been successful for the past 20 years.

I commend my colleagues on the Committee for maintaining careful oversight of this process. It is important that we ensure that our farm community is protected and that adequate supplies of compounds for fumigation of crops, milling and storage be available. In addition, it is also important that we fairly apply the laws we have adopted, whether it be the Montreal Protocol, or the domestic implementation laws under the Clean Air Act, so that those industries who have invested in these new technologies have the opportunity to earn a return on their investment.

Over the last 20 years, U.S. businesses, including some in my district, have invested billions of dollars to develop environmentally acceptable alternatives to the ozone-depleting substances regulated by the Protocol, including methyl bromide.

The US has shown a strong commitment to the success of the Montreal Protocol. The committee should stay focused on ensuring that the U.S. remains in compliance with the Protocol so as not to jeopardize billions of dollars in past investments and discourage additional investments in the future. It is possible for the U.S. to protect agricultural interests while maintaining the success of other key industries within the context of the Montreal Protocol provisions.

Here at home, the committee should also ensure that our government agencies, including the Department of Agriculture and the Environmental Protection Agency, are doing all they can to assist those reliant on methyl bromide to make significant progress in identifying alternatives to this compound by providing transition assistance, such as education, and, in the case of EPA, completing its allocation rule on these critical use exemptions.

With the help of this committee, I believe we can achieve significant reductions in methyl bromide use while protecting the interests of our agriculture community.

Thank you Mr. Chairman

PREPARED STATEMENT OF HON. JOE BARTON, CHAIRMAN, COMMITTEE ON ENERGY AND COMMERCE

I want to welcome our witnesses today and thank Chairman Ralph Hall for conducting this follow-up hearing concerning the legal status of methyl bromide.

I also want to acknowledge the strong interest of several members of this Committee in having today's hearing. I understand that many of my colleagues have constituents who have used methyl bromide in farming and other agricultural uses for many years and who are greatly concerned with the phase-out of this broad-spectrum fumigant under the Montreal Protocol and the Clean Air Act.

The roots of this situation extend back to 1986 when the United States ratified the Vienna Convention. This action was followed by ratification of the Montreal Protocol in 1988 and enactment of Title VI of the Clean Air Act in 1990. These actions set the legal table, so to speak, for subsequent decisions and actions relating to methyl bromide. This committee has sole jurisdiction over this matter in the House of Representatives and it takes that responsibility seriously. We are responsible for providing oversight to ensure that the integrity of the Montreal Protocol and the Clean Air Act are preserved and these laws are appropriately implemented. However, this committee is also obligated to make sure that our farmers and others in agriculture have the tools necessary to protect their crops and maintain their domestic and international competitiveness. This includes making sure that they have sufficient access to methyl bromide and to alternatives that are adequate and cost effective as substitutes prior to reducing our dependence on methyl bromide. We understand that EPA is currently working on registering several products that may help replace methyl bromide in some applications. We are anxious to get a progress report on these alternatives and to learn from the agriculture community their experiences with these products as they become available.

We are well aware that upcoming decisions may be critical regarding methyl bromide use in this country. So now is the time to ask questions and to probe deeply. We need to get all the facts on the table and to hear from our Administration and a variety of perspectives in the private sector. I look forward to the testimony of our witnesses.

Mr. HALL. We have with us Claudia McMurray, Deputy Assistant Secretary for Environment, Bureau of Oceans and International Environmental and Scientific Affairs, of the State Department. We thank you and those over at the State Department for your time here today.

We have the Honorable Jeffrey R. Holmstead, Assistant Administrator for Air and Radiation, Environmental Protection Agency, an important witness and important testimony here, and Dr. Rodney J. Brown, Deputy Under Secretary for Research, Education and Economics, accompanied by Mr. Burleson Smith, Director, Pest Management Policy, Department of Agriculture.

With that, I want to start out and recognize Ms. McMurray for, we hope, 5 minutes, but just stay as close as you can to what you really need to get your word over to us, and then we will open up and have a chance to answer more fully when questions come your way. Ms. McMurray.

STATEMENTS OF CLAUDIA McMURRAY, DEPUTY ASSISTANT SECRETARY FOR ENVIRONMENT, BUREAU OF OCEANS AND INTERNATIONAL ENVIRONMENTAL AND SCIENTIFIC AFFAIRS, DEPARTMENT OF STATE; ACCOMPANIED BY HON. JEFFREY R. HOLMSTEAD, ASSISTANT ADMINISTRATOR FOR AIR AND RADIATION, ENVIRONMENTAL PROTECTION AGENCY; RODNEY J. BROWN, DEPUTY UNDER SECRETARY FOR RESEARCH, EDUCATION AND ECONOMICS, DEPARTMENT OF AGRICULTURE; AND BURLESON SMITH, DIRECTOR, PEST MANAGEMENT POLICY, DEPARTMENT OF AGRICULTURE

Ms. MCMURRAY. Thank you, Mr. Chairman. If the subcommittee would permit, before I start my opening statement, there was mention made of a witness leaving a subcommittee hearing of this committee early last week. It was me. And just to underscore the importance of the Montreal Protocol to this administration, I was trying to catch a plane to go to the meeting of the Montreal Protocol. So, my apologies. I have no plane to catch today.

Mr. Chairman, members of the subcommittee, thank you for the opportunity to deliver this statement to update the subcommittee concerning the phaseout of methyl bromide under the Montreal Protocol.

Mr. Chairman, as you know, I make this statement on behalf of the Department of State, Department of Agriculture, and the Environmental Protection Agency. I have a longer statement that I would like to submit for the record, with your permission.

Mr. Chairman, before I discuss the specifics of our activities concerning methyl bromide, I would like to spend a moment reviewing the broader progress the United States and its global partners are making to repair the stratospheric ozone layer. Some of that has already been mentioned in opening statements here today.

I do this because the global phaseout of ozone-depleting chemicals under the Montreal Protocol is seen around the world as an unparalleled triumph of sound science, economics, and diplomacy. Actions we are taking in the United States and that are also taking place worldwide serve to protect human health, while still seeking to meet critical needs that the Protocol recognizes.

The United States continues not only to meet all of its obligations under the Montreal Protocol, but also to exert strong leadership in phasing out all ozone-depleting substances. In fact, in the United States, we have already phased out nearly 97 percent of all ozone-depleting substances controlled by the Protocol.

We were ahead of the curve globally in negotiating the original Montreal Protocol under President Reagan. President George H.W. Bush continued these efforts in 1991 and 1992 by accelerating the phaseout of ozone-depleting substances. During his administration, the list of regulated substances was expanded to include a number of newly identified ozone-depleters, including methyl bromide. President George W. Bush has maintained the legacy of strong U.S. support for the Protocol, the goal of which is to protect public health. On that score, we are clearly moving in the right direction.

An evaluation required by legislation estimated that full implementation of the Montreal Protocol will save 6.3 million U.S. lives from skin cancer between 1990 and the year 2165. Skin cancer is a preventable disease that kills one American every hour. The Montreal Protocol has helped us make great strides in combatting this threat to health by controlling the chemicals that damage stratospheric ozone.

Methyl bromide, as you have heard, is one of those chemicals. As the world's largest producer and consumer of this substance, the United States has seen its wide use for decades. It has also been widely used around the world. Growers and other users find it efficacious and are now using it efficiently.

While there are alternatives available today for many uses in particular situations, there is no alternative that can operate as effectively as methyl bromide for all crops in all situations on which methyl bromide is used. Nevertheless, the U.S. has made tremendous progress over the last decade by phasing out over 60 percent of our consumption of methyl bromide. We have achieved these reductions through action on several fronts. USDA has spent approximately $150 million in an aggressive research program to find alternatives to this chemical. The private sector is actively conducting research as well. Finally, since 1997, EPA has expedited review of methyl bromide alternatives, and has registered a number of chemical and use combinations to effect that change.

While we continue our domestic programs aimed at facilitating the phaseout of methyl bromide, the international process has recognized that there is a profound difference between it, methyl bromide, and other industrial chemicals that have been controlled in the past under the Montreal Protocol. Accordingly, the Parties created three types of exemptions to acknowledge the challenges that methyl bromide presents. We need not discuss the first two today. One is for emergencies, one is for quarantine and pre-shipment of goods in trade. At this hearing we focus our efforts on the critical use exemption, or CUE, which is in some ways similar to a safety valve that is available for chlorofluorocarbons, or CFCs, under the Protocol, and that exemption is called the essential use exemption.

The Protocol's criteria allow any developed country that is a Party to the Protocol to seek an exemption from the 2005 phaseout, if it determines that the absence of methyl bromide would cause a significant market disruption. The Parties must agree that the nominating Party has demonstrated that there are no technically or economically viable alternatives for the use in the context of the application, and that the Party continues to make efforts to find alternatives for the use and to limit emissions.

The United States was one of 13 countries that submitted nominations for a critical use exemption for the year 2005. The amount of methyl bromide nominated by the United States was 39 percent of our 1991 baseline for 2005, plus a supplemental request of 2 percent. For 2006, we have submitted a request of 37 percent of the baseline.

I am happy to report that for the first year following the phase-out—that is, 2005—the U.S. request for critical uses met with success. At an Extraordinary Meeting of the Parties to the Montreal Protocol held in Montreal in March 2004, the Parties granted nearly 90 percent of the U.S. request, and will consider our request for the additional 2 percent supplemental request for use in 2005. Under the agreement reached earlier this year, U.S. growers will have access to 35 percent of the 1991 baseline use amount in 2005, with up to 30 percent coming from new production and the remainder coming from inventories.

This agreement on critical use exemptions for 2005 was the result of a concerted U.S. effort, including extensive diplomatic outreach at the highest levels of the State Department to gain support from the other Montreal Protocol Parties for our request. This was by no means an easy process. In fact, the Parties could not agree on CUEs at their regular annual meeting in November 2003, and had to, for the first time, hold what is called an Extraordinary Meeting to resolve the issue.

We are now working actively with other countries on the U.S. request for 2006 and our supplemental request for 2005, both of which will be considered at the next meeting of the Parties in November 2004, in Prague. Last week, I led the U.S. delegation to the meeting of the Montreal Protocol Open-Ended Working Group in Geneva, a meeting that was designed to allow an exchange of views on all issues in preparation for the November meeting of the Parties. From our perspective, the Open-Ended Working Group meeting was successful, and gave us the opportunity to begin building support for our CUE request, and for improvements in the process by which the Montreal Protocol's technical body, the Methyl Bromide Technical Options Committee, or MBTOC, reviews CUE nominations.

Mr. Chairman, I would now like to draw the subcommittee's attention to the groundbreaking aspect of the decision we reached at the Extraordinary Meeting of the Parties in Montreal earlier this year.

As I mentioned earlier, the Montreal Protocol Parties have already agreed to a U.S. critical use exemption for 2005 amounting to 35 percent of the 1991 baseline level. Up to 30 percent can come from new production, with the remainder coming from existing inventories. This new approach is important because it limits the new manufacture of this ozone-depleter for the very first time, and it calls also for a drawdown in inventory to assure adequate supply for our farmers.

EPA is currently in the final stages of preparing a proposal to allocate these amounts so that through the Notice and Comment rulemaking process, we will be able to engage stakeholders in designing a workable and fair approach to allocation. The use of inventories will be factored into this allocation process.

Mr. Chairman and members of the subcommittee, in conclusion, my testimony should indicate the level of importance the administration places on taking action on methyl bromide in a manner that protects public health while still meeting the needs of our farmers. We have done this without doing harm to the unqualified success story of the Montreal Protocol.

One delegate at our Geneva meeting last week recognized this by saying, despite our recent difficulties, "the Protocol is, indeed, alive and well." I believe that our efforts to work with other countries to solve this problem have helped make that statement a reality. I also believe that through continued work with other Protocol Parties, we will achieve an outcome on methyl bromide at the upcoming Meeting of the Parties that is consistent with the Protocol's overall goal, while still ensuring that critical needs are met.

I thank you for this opportunity to testify before the subcommittee on behalf of these three Agencies, and I would be happy to answer any of your questions, as would my colleagues. Thank you.

[The prepared statement of Claudia McMurray follows:]

PREPARED STATEMENT OF CLAUDIA MCMURRAY, DEPUTY ASSISTANT SECRETARY FOR ENVIRONMENT, BUREAU OF OCEANS AND INTERNATIONAL ENVIRONMENTAL AND SCIENTIFIC AFFAIRS, DEPARTMENT OF STATE

Mr. Chairman, Members of the Subcommittee, thank you for the opportunity to deliver this methyl bromide statement on behalf of three federal agencies—the Department of State, the Department of Agriculture, and the Environmental Protection Agency. We realize that methyl bromide, and its phase out under the Clean Air Act and Montreal Protocol are issues of great importance to many of you and your constituents. While the focus of the statement is on methyl bromide, I would like to begin by providing a brief overview of our ongoing efforts to protect the ozone layer under the Clean Air Act (CAA) and the Montreal Protocol.

The global phase out of ozone-depleting chemicals is an unparalleled triumph of sound science, economics, and diplomacy. It rests on an overwhelming consensus within the world science community, and enjoys near universal participation. One hundred and eighty-seven developed and developing nations are now Parties to the Montreal Protocol and have committed to measurable targets and timetables for the complete phase out of chemicals that damage the ozone layer.

Since the Montreal Protocol's inception in 1987, the United States has exerted strong leadership in phasing out all ozone depleting substances. The United States continues not only to meet all of its obligations under the Montreal Protocol, but, in fact, has already phased out the consumption of nearly 97% of all ozone-depleting substances controlled by the Montreal Protocol.

From the beginning, the establishment of clear targets for all countries, and the flexibility allowed in implementation, have helped create broad bipartisan support at home for the Montreal Protocol's mission to protect the ozone layer. The United States was an active participant in negotiating the original Montreal Protocol under President Ronald Reagan. President George H. W. Bush continued these efforts in 1991 and 1992 by accelerating the phase out of ozone-depleting substances. During his Administration, the list of regulated substances was expanded to include a number of newly-identified ozone depleters, including methyl bromide. President George W. Bush has maintained the legacy of strong U.S. support for the Protocol.

The goal of the Montreal Protocol and the Clean Air Act is to protect public health from harmful UV radiation. On that score, we are clearly moving in the right direction. In fact, the legislative evaluation required by the Clean Air Act's section 812 estimated that full implementation of the Montreal Protocol will save 6.3 million U.S. lives from skin cancer between 1990 and 2165. And, we are working with groups like the American Academy of Dermatology and the National Council for Skin Cancer Prevention in education programs like SunWise Schools to further reduce risks of skin cancer, especially for kids. EPA's sun safety programs were recognized in October 2003 by the Cancer Research and Prevention Foundation's Congressional Families Action for Cancer Awareness. Because skin cancer is a preventable disease that kills one American every hour, it is the government's obligation

to provide people with the information they need to mitigate the impacts of exposure to the sun, in addition to controlling the chemicals that damage stratospheric ozone.

Our successes so far do not mean that our task is done. In fact, the 2002 Scientific Assessment of Ozone Depletion, a comprehensive overview of the state of the ozone layer involving the work of hundreds of atmospheric scientists, life scientists, and researchers worldwide, with significant U.S. participation, found that the ozone layer is susceptible to damage because stratospheric concentrations of ozone-depleting chlorine is at or near its peak, while bromine, although still increasing, may peak over the next several years. In addition, seasonal damage to the ozone layer resulting in the "ozone hole" in the Antarctic continues; in the 2003 season the hole reached its second largest extent, covering an area roughly the size of North America. Ultimate recovery of the ozone layer—and the consolidation of all the gains made so far—depends on our will, and that of the global community of Parties, to finish the job.

Staying the course matters to public health and to the ozone layer, but it also matters to the many businesses who took the risk of investing heavily in alternatives that do not damage the ozone layer. A recent letter to EPA from companies making this choice have built a $10 billion dollar business in trade with ozone-safe American products and technologies that could be at risk if the United States were to take action inconsistent with its commitments under the Montreal Protocol. For all these reasons, this Administration remains committed to finishing the job of protecting the ozone layer started by President Ronald Reagan.

That brings us to the topic of today's hearing, methyl bromide. We know a number of things about this chemical. First, it is a broad-spectrum restricted use biocide that is highly effective in killing pests that are of concern to U.S. agriculture. Second, the United States has been the world's largest producer and consumer of this substance. Third, methyl bromide has been in wide use in the United States for decades, and users find it efficacious and are using it efficiently. Fourth, while there are alternatives available today for many uses in many situations, there is no alternative that can operate as effectively as methyl bromide in all the crop situations on which methyl bromide is used.

As to methyl bromide's current regulatory status under the Clean Air Act, a little history is vital to understanding where we are now. The 1990 Clean Air Act required EPA to phase out the production and import of any newly identified substance with a significant potential to damage ozone within seven years of listing, without exceptions or exemptions. In 1991, the EPA received a petition to take this action with respect to methyl bromide and promulgated a rule which established a phase out date of 2001 in the United States. In an effort to address both the environmental concern and an agricultural concern that a unilateral U.S. phaseout in 2001 would put the United States at a disadvantage among other developed nations that are agricultural competitors of the U.S., successive U.S. delegations to the Montreal Protocol pushed the global community to adopt the U.S. phase out date of 2001. In 1997, the United States succeeded in moving developed countries from their initial position of only a freeze in production and import at historic levels to a phase out of methyl bromide in 2005 with interim reductions in 1999, 2001 and 2003. Given that progress, and the desirability of ensuring harmonized requirements, Congress moved to amend the CAA in 1998 to conform the U.S. phase out schedule with that faced by other developed country Parties to the Montreal Protocol, resulting in the phase out schedule we have today. This schedule called for a freeze in methyl bromide production and consumption for developed countries in 1995, a 25% reduction by 1999, a 50% reduction by 2001, a 70% reduction by 2003, and a full phaseout by 2005, subject to certain exemptions.

Users have and are continuing to make progress in reducing the use of methyl bromide, in fulfillment of our obligations under the Montreal Protocol, by using newly approved substitutes and implementing innovative new technologies and practices. Under the U.S. Department of Agriculture's (USDA) Methyl Bromide Alternatives Program (Methyl Bromide Alternatives at http://www.nps.ars.usda.gov), agricultural and forestry leaders from private industry, academia, state, and federal agencies have come together to develop viable alternatives to methyl bromide. This research program has taken into account input from federal agencies as well as extensive private sector research and trial demonstrations of alternatives to assess the problem, formulate priorities, and implement state-of-the-art research.

Over a period of 10 years, through 2003, the USDA Agricultural Research Service has spent approximately $150 million in an aggressive research program to find alternatives to methyl bromide. Through the Cooperative State Research, Education, and Extension Service, USDA has provided an additional $15.8 million since 1993 to state universities for methyl bromide replacement research and education. These

federally supported research activities are in addition to extensive private sector efforts.

Nearly 80 percent of pre-plant methyl bromide soil fumigation use is in a limited number of crops. Much of the federal government's pre-plant effort has focused on strawberries, tomatoes, ornamentals, peppers, and nursery crops, (forest, ornamental, strawberry, pepper, tree, and vine), with special emphasis on tomatoes in Florida and strawberries in California as model crops. Methyl bromide users have contributed field plots, plant material, and equipment for research trials on potential alternatives.

At the same time, innovative U.S. technologies and practices allow our growers to make the methyl bromide we do use go as far as possible toward controlling key pests. The reductions in U.S. consumption over the past few years have been successfully accomplished in part because manufacturers and users have found that it is possible to dilute methyl bromide with other pest-control compounds, like chloropicrin, and still maintain the pest control effectiveness of the material. Further, highly effective application technologies, involving the deep injection of gaseous methyl bromide into cultivated soil, mean that more methyl bromide remains in the ground for a longer period of time, where it can do its important work of pest control.

Another important area of emphasis is our responsibility to help identify, register, and implement safe and effective alternatives. Understanding the importance of this in the phase out of methyl bromide, EPA has since 1997 made the registration of alternatives to methyl bromide its highest registration priority. Even under the new "fee-for-service" system, EPA is committed to giving methyl bromide alternatives priority. As one incentive for the pesticide industry to develop alternatives to methyl bromide, EPA has worked to reduce the burden of data generation to the extent feasible while still ensuring that the Agency's registration decisions meet Federal safety standards. Where appropriate from a scientific standpoint, EPA has refined the data requirements for a given pesticide application, thus facilitating the research and development process for methyl bromide alternatives. Furthermore, EPA scientists routinely meet with prospective methyl bromide alternative applicants, counseling them through the pre-registration process to increase the probability that the data are done right the first time, thus minimizing delays.

Our efforts have paid off in some areas. Since 1997, EPA has registered a number of chemical/use combinations as part of its commitment to expedite the review of methyl bromide alternatives. While there is no silver bullet among them, they are nonetheless an important part of our overall methyl bromide strategy. They include:

2000: Phosphine to control insects in stored commodities;
2001: Indian Meal Moth Granulosis Virus to control Indian meal moth in stored grains
2001: Terrazole to control pathogens in tobacco float beds
2001: Telone applied through drip irrigation—all crops
2002: Halosulfuron-methyl to control weeds in melons and tomatoes
2003: Trifloxysulfuron sodium as an herbicide for tomato transplants in Florida and Georgia
2004: Fosthiazate as a pre-plant nematocide for tomatoes
2004: Sulfuryl fluoride as a post-harvest fumigant for stored commodities

In addition, EPA is currently reviewing several applications for registration as methyl bromide alternatives, including iodomethane as a pre-plant soil fumigant for various crops, and dazomet as a pre-plant soil fumigant for strawberries and tomatoes. While these activities are promising, environmental and health issues with alternatives must be carefully considered to ensure we are not just trading one environmental problem for another. As required by the Food Quality Protection Act, EPA is currently conducting a tolerance reassessment and reregistration of methyl bromide to ensure that its registered uses meet today's health and safety standards. To facilitate this review, EPA expects to release the preliminary risk assessment for methyl bromide and other soil fumigants this fall for public review and comment. EPA is also conducting a cluster assessment of a group of pesticides known as soil fumigants, to include methyl bromide. Because soil fumigants are used in similar ways and present potential risks from similar paths of exposure, it makes sense to review the fumigants together rather than on separate time schedules. To address this, we are taking a comprehensive approach.

In that regard, ongoing research on alternate fumigants is evaluating ways to reduce emission under various application regimes and examining whether commonly used agrochemicals, such as fertilizers and nitrification inhibitors, could be used to rapidly degrade soil fumigants. In addition, EPA has adopted a comprehensive approach to evaluating the currently registered and pending soil fumigants. A preliminary risk assessment which includes all of the current and pending soil fumigants

is expected to be released this Fall for public comment with stakeholder discussion of the potential risk management options to occur during 2005. This process will assure a balanced, comprehensive and transparent evaluation of the risks and benefits of all fumigation options.

While we continue our domestic programs to facilitate the phase-out of methyl bromide, the Parties to the Montreal Protocol recognized that widespread use and elusive feasible alternatives to methyl bromide made its phase-out more difficult than other chemicals controlled in the past under the Montreal Protocol. Accordingly, the Parties to the Montreal Protocol created three types of exemptions for methyl bromide.

First, the Parties recognized that methyl bromide is vitally needed in trade to ensure that shipments do not contain harmful and invasive pests that could be transported with commodities and introduced into new areas. Thus, they provided an exemption for quarantine and preshipment uses. As a consequence, while countries have committed to find alternatives and to limit the emissions and use of methyl bromide to those applications where its use is necessary, the production and import for these uses can continue during and after the phase out. On January 2, 2003, EPA published the Final Rule fully activating this exemption.

The second methyl bromide exemption, covering emergency situations, is an exemption from the phase out for the production or import of 20 tonnes of methyl bromide per event. This exemption can be activated by a Party to address what it considers to be an emergency. The real possibility of emergency needs that cannot be anticipated, like anthrax contamination, makes it especially vital for countries to have the flexibility to make methyl bromide rapidly available for such needs.

Third, the Parties created the critical use exemption (CUE), which is in some ways similar to the other safety valve available under the Montreal Protocol for CFCs, the essential use exemption. The Protocol's criteria allow any developed country that is a Party to the Protocol to seek an exemption from the 2005 phase out if it determines that the absence of methyl bromide would cause a significant market disruption. The Parties must agree that the nominating Party has demonstrated that there are no technically or economically feasible alternatives for the use in the context of the application and that the Party continues to make efforts to find alternatives for the use and to limit emissions. I want to focus on this exemption today, because 2005 will be the first year that the U.S. and other countries will make use of this provision.

The United States was one of 13 countries that submitted nominations for a critical use exemption for the year 2005. Some national requests were very small, covering only one use, and some were large, covering 10 or more uses. The U.S. nominated the following 16 crops and uses: tomatoes, commodity storage, cucurbit, eggplant, food processing, forest tree seedling nursery, ginger, orchard nursery, orchard replant, ornamental nursery, pepper, strawberry, strawberry nursery, sweet potato, nursery seed bed trays, and turf grass. The amount of methyl bromide nominated by the United States for these uses was 9,920,965 kilograms for 2005, and 9,722,546 kilograms for 2006—this translates into 39% and 37% of our 1991 baseline level for methyl bromide uses.

I am happy to report that for the first year following the phase out, 2005, the U.S. request for critical uses met with success. At an Extraordinary Meeting of the Parties to the Montreal Protocol, held in Montreal in March 2004, the Parties granted nearly 90% of the U.S. request, and will consider a supplemental request for an additional 2% of our baseline for use in 2005. Under the agreement reached earlier this year, U.S. growers and others with critical uses will have access to at least 35% of the 1991 baseline use amount in 2005, with up to 30% coming from new production and importation and the remainder from existing inventories. I will discuss the issue of inventories in greater detail later in this testimony.

This agreement on critical use exemptions for 2005 was the result of a concerted U.S. effort to gain support from the other Montreal Protocol Parties for our request. This was by no means an easy process. In fact, the Parties could not agree on CUEs at their regular annual meeting in November 2003 and had to for the first time in the Protocol's history set up an Extraordinary Meeting of Parties (EMOP) to resolve this issue.

In the months leading up to the Extraordinary Meeting, the Department of State coordinated a diplomatic outreach effort to ensure that other Parties recognized the importance of this issue to the United States. We held bilateral meetings with key countries involved in the CUE process and, through our Embassies, made demarches on this issue to nearly 50 Montreal Protocol Parties. At our request, an ad hoc meeting of a small number of Parties was held in Buenos Aires in February 2004 to informally consider ways to resolve the impasse. This extensive outreach

was successful in making clear the technical and economic basis for the U.S. CUE request and in gaining the support of many countries at the March 2004 EMOP.

We are now working actively with other countries on the U.S. CUE request for 2006 and our supplemental request for 2005, which will be considered at the next Meeting of Parties in November 2004 in Prague. Last week, I led the U.S. delegation to the meeting of the Montreal Protocol Open-Ended Working Group (OEWG), which was held in Geneva from July 13-16. This meeting is an interim session that allows for an exchange of views on all issues in preparation for the November meeting. From our perspective, the OEWG meeting was successful and allowed us to begin building support for our current CUE requests and for our efforts to improve the process by which the Montreal Protocol's technical body, the Methyl Bromide Technical Options Committee (MBTOC), reviews CUE nominations.

The meeting provided a good opportunity to explain to other Parties and to the MBTOC the economic and technical rationale for our CUE request. During formal and informal sessions, the U.S. delegation highlighted the extensive process through which we developed our CUE request in compliance with Montreal Protocol criteria. I believe this exchange on extremely technical issues will provide dividends as other countries and the MBTOC continue to review our CUE nominations.

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We also made major progress at the OEWG on the important issue of improving the future operations of the MBTOC. During extensive discussions on this issue, which included a three-day ad hoc meeting prior to the start of the OEWG, the U.S. delegation pressed for improvements in MBTOC's procedures and practices. We made proposals to enhance transparency in the Committee's proceedings, and to allow for improved communication between the MBTOC and a nominating Party. Similarly, we proposed ways to ensure that the Committee adopts sound procedures for considering the technical and economic merits of CUE nominations and takes into account the specific circumstances faced by each user. While these discussions were fruitful, there is still a considerable amount of work to be done to put reforms in place at the November meeting.

Finally, last week the U.S. delegation put forward a draft decision on ways in which the Parties could consider and approve CUE nominations for more than one year at a time. We believe a so-called multi-year approach would provide benefits in terms of time savings for the MBTOC and the Montreal Protocol Parties reviewing CUE nominations and for the Parties that have to develop them. A multi-year approach would also provide greater predictability for the user community. The delegates to the OEWG discussed, in detail, the U.S. proposal in Geneva. It will be a key issue on the agenda for the November meeting in Prague.

—Mr. Chairman, I would now like to return to the issue of methyl bromide inventories. As I mentioned earlier, the Montreal Protocol Parties have already agreed to a U.S. CUE for 2005 amounting to 35% of the 1991 baseline level. Up to 30% of the baseline level can come from new production and importation, with the remainder coming from existing inventories. EPA is currently in the final stages of preparing a proposal to allocate these amounts, so that through the notice and comment rulemaking process, we will be able to engage stakeholders in designing a workable and fair approach to allocation. The use of inventories will be factored into this allocation process, with at least 5% of the methyl bromide coming from the inventories.

It must be noted, however, that this inventory does not in any sense belong to the U.S. government, nor do we have any direct control over its disposition. Because methyl bromide in existing inventories was manufactured under prior years' allocations, and fully within the compliance schedule for the United States under the Montreal Protocol, it belongs to the U.S. manufacturers, distributors and importers who now hold it. The United States has historically exported a portion of its annual production, and there is no reason to believe that this will not continue. However, because it is also true that the United States has historically been the largest consumer of methyl bromide in the world, it is likely that some portion of this inventory will be made available for use here.

Mr. Chairman, my testimony should indicate the level of importance the Administration places on taking action on methyl bromide in a manner that protects public health, while still ensuring the critical needs of our farmers are met. The Montreal Protocol has been an unqualified success story. As one delegate put it at our Geneva meeting, despite recent difficulties, "the Protocol is indeed alive and well." I believe that our recent efforts to work hard with other countries to solve this problem have helped make that statement a reality. I believe that, through continued work with other Protocol Parties, we will achieve a good outcome on methyl bromide at the upcoming Meeting of Parties that is consistent with the Protocol's overall goals.

I thank you for this opportunity to testify before this Committee on behalf of the Department of State, the Department of Agriculture and the Environmental Protection Agency. My colleagues and I would be pleased to answer any questions you may have.

Mr. HALL. All right. It is my understanding, Ms. McMurray, that you will be the only one giving testimony for the entire group, is that correct? We thank you for your explanation for yesterday, and we understand your need for copious use of the airways in today's world. So, we will get underway with some questions.

While I review these, let me recognize Mr. Allen. Go ahead, Mr. Allen, if you would, with some questions.

Mr. ALLEN. Thank you very much for that presentation. I would say I appreciate the explanation for your need to leave. I think I wouldn't have made the comment if we had been informed of exactly what you were doing and why you had to leave, but we did not know that.

I wanted to ask, Ms. McMurray, both you and Mr. Holmstead, some questions about the inventories and how—what we really know about inventories and the use, the level of use in the United States, and I will address this to both of you. You can take turns.

As I understand it, the U.S. is requesting a critical use exemption for more methyl bromide, 37 percent of the 1991 baseline, than we reportedly used in recent years. I understand there are reports that we have been using around 30 percent of the baseline, but Adam Sharp, EPA's Associate Assistant Administrator, told the Washington Post that EPA's figures on methyl bromide consumption are only an estimate, and actual use may be well above the 30 percent of baseline levels that are reported. So, I would like your help with this.

Has EPA been underreporting the methyl bromide consumption in the country? If 100 percent consumption is not reported, does EPA know or does it not know if total consumption since 2003 exceeded 35 percent of baseline in any given year? I guess since it is an EPA question, maybe, Mr. Holmstead, you could help with that. How good are our numbers, in particular, and the specific question is, do we know or not know if total consumption since 2003 has exceeded 35 percent of the baseline?

Mr. HOLMSTEAD. Our numbers are very good, but I think that some of the confusion here is that what we are required to report under the Protocol is a defined term called "consumption." And what consumption, in this defined term is, it is the amount produced in the United States plus the amount imported minus the amount exported. So, that is a defined term that isn't the same as how much as is actually used. So, again, remember that what we report every year under the Protocol is the amount produced in this country plus the amount imported into the country minus the amount exported.

We don't know exactly how much was used because there are existing inventories that are held throughout the supply chain that may be held at producers, that may be held at distributors, that may be held at importers, that may be held by individual farmers. So what we report as consumption and what we are required to report, we are very confident about. And I think that is where the

confusion is, is there is a difference between what we report as consumption and what people estimate is used.

Mr. ALLEN. Another way of saying that is what you report as consumption is a production number plus imports minus exports, so it is not a consumption number in the ordinary sense of the word. So, I take it, if I understand, that you really don't know whether consumption, actual use in the United States of methyl bromide, was above 35 percent or below 35 percent, or am I going too far, you don't know what it was?

Mr. HOLMSTEAD. That is absolutely right. We don't know—and I like to use the term "consumption" versus "use'—in terms of knowing exactly how much methyl bromide our farmers used in 2003. We have several estimates, and we have tried to estimate that by doing an estimate of how much was used out of inventory. That is this one number that I know Mr. Doniger has focused on, and we think that is an important number to look at. But there are other estimates that we look at. There is actually a proprietary service that we subscribe to, that has another estimate. The State of California, where a great deal of it is used, does their own estimate. And so we believe that actual use in 2003 was in the neighborhood of somewhere between 35 and 50 percent, but we don't know exactly what that number is.

Mr. ALLEN. Mr. Holmstead, I am looking here at a document provided by EPA—you will have to help me—it is headed "U.S. Inventory of Methyl Bromide As Of December 31, 2003," and it has baseline consumption inventory held, which is extracted by U.S. companies as of a couple of dates, drawdown, and then it has actual consumption—and let us stay with this, whatever that means at the moment. U.S. consumption limit, actual 2003 is 6500 metric tons. And it says then, 25 percent plus a drawdown, and then it has the word "use 30.06 percent." I take this to mean—help me if I am wrong—that at least this document suggests that actual use in the field of methyl bromide is 30 percent of the 1991 baseline, is that right?

Mr. HOLMSTEAD. That is one of several estimates that we have. You asked whether we are meeting our obligations under the Protocol to report, and what we report is not that 30.06 number, it is the 25 percent number.

Mr. ALLEN. I understand that, but my question is about how much methyl bromide is actually being used. That is the number I am trying to get to because if, in fact, we are only using 30 percent of the 1991 baseline, why on earth are we then asking for 37 percent, for an allowance of 37 percent? That is the underlying problem I have.

Mr. HOLMSTEAD. I understand the question, and I think it is an excellent question, and I think we have been looking forward to trying to explain this. We don't have any way of knowing exactly how much was used last year or the year before.

The document you have is one estimate that takes this consumption number that we do report, and then is an attempt to estimate how much drawdown at inventory occurred. So, that is one estimate.

Mr. ALLEN. Do you have other estimates?

Mr. HOLMSTEAD. Yes, we do.

Mr. ALLEN. May we see them?

Mr. HOLMSTEAD. We would be happy to provide those to you, yes. I think a number of us, in response to this, have said we have several different estimates, and they range from that one up to about 50 percent, and we think it is somewhere—in 2003, we think it was somewhere from the low 30's up to 50 percent of the 1991 baseline.

Mr. ALLEN. How big a variation is that in terms of metric tons, do you know?

Mr. HOLMSTEAD. We could certainly calculate it.

Mr. ALLEN. If you could get that in to us.

Mr. HOLMSTEAD. Yes.

Mr. ALLEN. The chairman has informed me that I have used my time, his time, and so I think that is a signal it is time for someone else. Thank you.

Ms. MCMURRAY. Mr. Chairman, I wanted to just add a little bit to the answer there.

Mr. HALL. I noticed that you probably wanted to get in there. You go ahead, and I will yield some more of my time for you to answer.

Ms. MCMURRAY. Thank you. I think it is important to realize that, first of all, when we prepared our numbers for 2005, it was quite some time ago, before any of the figures that you have been referring to were even available. So, 2005 is not even a relevant discussion. You are talking now about the 37 percent number for 2006, and Jeff has already pointed out that there are a number of different figures that we look at kind of from the top down. We also ask for numbers from the bottom up, from the farmers, and say, "What do you need?" Now, we don't just take that on face value, we actually go through—and it is the EPA who does this calculation—a look at where is there double-counting, where are there alternatives that are available that really ought to come into play here, and the number comes way down from there. So, we have that number and all the other numbers that EPA has already referred to in the answer to your question.

The other part of it is we have to leave a little bit of a margin of error in our negotiation—we don't want to leave our farmers high and dry—so that has to factor into it as well. So there are a number of different things that we look at before we actually take a negotiating position in an international body. Thank you.

Mr. HALL. My time is almost gone, but recalling whatever time I may have, Mr. Holmstead, let me ask you this question. I understand that a chemical called methyl iodide is a promising alternative to methyl bromide in pre-plant application for some high-value crops, and I guess that is a good statement?

Mr. HOLMSTEAD. It looks very promising, and the Agency is moving very quickly through the registration process, so that we hope that that would be——

Mr. HALL. Tell us what effort EPA is making to expedite registration of this, or any other promising alternative, briefly.

Mr. HOLMSTEAD. For a number of years, the Agency has had a policy of fast-tracking alternatives to methyl bromide, and there are several new pesticides that have been registered under this process. So, essentially, they will move to the head of the line. We will go through the scientific studies as quickly as we can. And this

one that you mentioned looks to be a pretty promising alternative, but it is not yet registered.

Mr. HALL. All right. I will get to Mr. Brown, then. Are you familiar with any product that is as effective and affordable as methyl bromide for the wide range of uses that methyl bromide is used for and, if so, what are they and how do they compare for effectiveness and cost, in about three words?

Dr. BROWN. I think I know the words you would like to hear.

Mr. HALL. I don't know.

Dr. BROWN. It is a little more complicated than that because methyl bromide has such a broad spectrum of uses with regard to climate, soil, crops, and so on, that the question really is, do we have replacements for each of these combinations of conditions that add up to the use of methyl bromide.

Mr. HALL. I am going to—Mr. Foley has, like all the rest of us, other needs, and he has arrived. I would like to ask unanimous consent for him to be allowed to sit on this committee. And we have a vote, and four votes to follow it, and we have 15 minutes to vote, and how many minutes are gone.

Ms. CAPPS. We have 10 minutes left.

Mr. HALL. We have 10 minutes left.

Mr. SHIMKUS. Mr. Chairman, could you just allow Dr. Brown to follow up on the question that he, in essence, asked us, as whether there was the product that would meet all the various spectrum of the need for methyl bromide in every category now?

Dr. BROWN. Well, no, that is why we have exemptions.

Mr. SHIMKUS. That is all I need to know. Thank you.

Mr. HALL. That is in one word, easy—"no." I guess we ought to recess for 30 minutes. Four votes is 20 minutes. We had an abstractor in Rockwell, Texas, named Rollie Steiger, that used to have a sign on his door that said "Gone for coffee, be gone 5 minutes, been gone 3." He just couldn't afford to miss any business. I ask the witnesses, if they would, to remain. We will be at parade rest for about 35 or 40 minutes. We will be back as quickly as we can get back.

[Brief recess.]

Mr. HALL. We will come to order, and the Chair recognizes Ms. Capps.

Ms. CAPPS. Thank you, Mr. Chairman. I want to try to do in a very short time ask questions of three people—Mr. Holmstead, Ms. McMurray, and Mr. Smith. So, I hope we can kind of do "yes" and "no" in very brief because this is all the time I have, and you can tell I am out of breath already.

To continue with the topic of the stockpile, how big is it? Is the information submitted in response to last year's hearing still accurate? Start with that.

Mr. HOLMSTEAD. Just quickly, there is no such thing as a stockpile. We have some estimates about the inventory that are being held by the major distributor——

Ms. CAPPS. Okay, call it "inventory."

Mr. HOLMSTEAD. The issue with the inventory is that is considered to be confidential business information.

Ms. CAPPS. Can you answer why it is, briefly?

Mr. HOLMSTEAD. Yes. There are a very small number of major producers and importers, and if we were to release the aggregate number of what our estimates are, then that would essentially tell the competitors how much their competitors have, and the concern——

Ms. CAPPS. Our competitors in our country?

Mr. HOLMSTEAD. Yes. The way our CBI statute works, if it would give someone a competitive advantage, then that is something that we consider to be CBI.

Ms. CAPPS. So it is for business reasons.

Mr. HOLMSTEAD. Yes.

Ms. CAPPS. Are we still increasing our inventory? Is it being increased currently?

Mr. HOLMSTEAD. I think our most recent estimate is, no, it is actually coming down, that we are eating into the inventory.

Ms. CAPPS. Could I ask one guess on your part, just an estimate, could it be in the area of 22 million pounds?

Mr. HOLMSTEAD. I think even if I knew the answer, I wouldn't be able to—I don't know what that number is, but I think, again, we consider the size to be CBI.

Ms. CAPPS. Thank you. I want to ask you, Ms. McMurray—and just, again, very briefly—some of the witnesses' testimony that we have seen in writing, that are on the next panel, suggest that the CUE process is broken, that the expertise of the Government, including the EPA, is not being considered in the process, and our sovereignty is therefor being jeopardized.

Would you say yes or no to that?

Ms. MCMURRAY. If I had to answer yes or no, I would say, no, it is not broken, but I would like to add a sentence to that, if I could, which is, this is the first year that we have gone through the critical use exemption process, and I think all the Parties, including the United States, acknowledge that were a lot of problems with it, and that we are now attempting to solve them so that we can work within the process.

Ms. CAPPS. So you are not giving up. If it is the case, and I am assuming that that is what the intention of the second panel is, that some of the members on the panel are saying it is broken, you would disagree?

Ms. MCMURRAY. I would.

Ms. CAPPS. Because I would think that your job is to make sure that it isn't broken.

Ms. MCMURRAY. You bet.

Ms. CAPPS. And, finally, Mr. Smith, I have asked this question as long as I have been in Congress and been aware of the situation with respect to methyl bromide. We have spent nearly $150 million on alternatives, it is my understanding. Could you briefly, in whatever—I guess I have a minute left—explain what the status of that is, of that research into alternatives?

Mr. SMITH. The research that is being performed through the auspices of the Department of Agriculture is continuing. We look at the opportunity to continue to search for alternatives until such time that our grower constituents feel that their needs are being met.

Ms. CAPPS. Everyone touts methyl bromide, it is so cheap, it does everything for everybody, and yet such a toxic substance to both our ozone layer and the people exposed to it. Why, in the past 10 years, has there not been more progress made in alternatives?

Mr. SMITH. Well, I would say that because the U.S. has phased out successfully over 50 percent of the use so far, that those alternatives that are successful have been adopted. The difficulty is under the critical use exemption process, we recognize that there are still instances where there are not technically and economically feasible alternatives for those remaining uses.

Ms. CAPPS. So you are saying that there has been progress in alternatives, given the fact that we have reduced our usage, which then, to me, flies in the face of the fact that we are asking for higher amounts to be allowed because part of it is, would you agree, the incentive to use alternatives as well? We are going to have to use alternatives that are going to be a little more complicated, perhaps involve more retraining, or maybe you would like to go into that, in whatever seconds I have left, and say also when can we expect to see this research result in widespread alternative use?

Mr. SMITH. Again, I would characterize it as a continuum. We have made certainly the easy substitutions that were available. WE continue to go through those that are more difficult, but we have some that will continue to be vexing to our efforts to substitute methyl bromide uses, according to the terms of the Protocol, which are technically and economically feasible.

Ms. CAPPS. And some of your mission then is also to make those alternatives widely available, or the knowledge of them, and encourage and incentivize farmers to use alternatives.

Mr. SMITH. Most all of the alternatives have been commercially available for some time. There are some that are still awaiting further registration action by EPA.

Ms. CAPPS. Oh, EPA needs to register some of them? Are they in the pipeline?

Mr. SMITH. They have certainly been——

Ms. CAPPS. Is there any time line for how soon they could be registered? I would turn to someone else and ask, is there a holdup for registering alternatives?

Mr. HOLMSTEAD. Again, there is no silver bullet. These have moved to the head of the queue, and there is this one in particular that I think the chairman mentioned, iodomethane, which is nearing the end of the registration process. I can't give you an exact date, but it is in the relatively near future that a decision will be made on that product.

Ms. CAPPS. I know I am borrowing on time, but once that does receive acceptance, can you estimate how quickly it could impact the amount of methyl bromide being used? I understand this is speculation in a way.

Ms. MCMURRAY. I think it varies chemical by chemical, crop by crop, but at a minimum, 6 months to a year sometimes it takes to fold it into the growing process. Now, the Agriculture Department may have more precise figures than that. But if I could also add, part of what the EPA looks at in their registration process of these new chemicals is the environmental impact of those chemicals, and if they have a problem, groundwater contamination problem, or

some other problem, we don't want to just trade one problem for another, in other words. So, those are the risks that have to be balanced in the re-registration process.

Ms. CAPPS. I guess my final concern is that given this interest in alternatives, that we are working against it perhaps to some degree, by asking for an increase in use, consumption and manufacturing more methyl bromide.

Ms. MCMURRAY. Well, in response to that, I would say that we are asking, in our opinion, for nothing that is not justified under the exemption process, which means it has to be technically and economically infeasible to use anything else but methyl bromide. And so that is the criteria we use when we prepare our application.

Ms. CAPPS. Even though its use is down.

Ms. MCMURRAY. Well, as the discussion went this morning, there are several numbers that we are looking at that reflect use, and not all of them are below the number that we have asked for, there is a range. And, therefore, we have to take all that into account when we prepare our request.

Ms. CAPPS. Thank you. Thank you, Mr. Chairman.

Mr. HALL. Thank the lady. The Chair recognizes the gentleman from Florida, Mr. Davis.

Mr. DAVIS. Thank you, Mr. Chairman. And I would ask the witnesses please to correct me if I am covering matters that have been covered extensively in the past.

One of the things I think everybody can agree upon here today is the level of uncertainty is pretty maddening and remarkably prevalent.

I understand that if things continue on their current course—and I think Representative Capps has covered the research issue which I would have covered—there will probably be an application submitted for 2006 by the United States, to get further relief under the critical use exemption. And if it is not too premature to talk about that, since we are all trying to look ahead here, is that in fact the case? Will the process be dramatically different than what was just experienced in 2005? It will be tougher? Will the issues change?

Ms. MCMURRAY. Mr. Davis, I think, if I understand your question, are we going to prepare a supplemental request to our 2006 request, we have already got a 2006 request that is pending with the Technical Committees. And I will just run through quickly what the process is. It is the same as last year. We had one review by the Technical Committees already. We have had a number of questions asked about our numbers that we are now in the process of responding to, and I think we will have that complete by the middle of August. And then the final decision gets made in November.

If there is a 2006 supplemental request, which is allowed under the Protocol, that would come later this year. That decision probably wouldn't be made for another 8 to 10 months finally by the Parties, as to whether or not that would be approved.

Mr. DAVIS. Are you willing to speculate on the outcome of the 2006 request, or any supplement to it?

Ms. MCMURRAY. I think it is too early to tell right now. We have so many questions of a technical nature that have to be answered

about our request, that I can't predict the outcome. I am hopeful that we will have a similar result to what we had for the 2005 request, in that we, I think, made our case that our numbers were technically justified, and I hope we can do the same thing for 2006.

Mr. DAVIS. I suppose that there is a committee with other countries who review and vote to approve or disapprove our application in this process.

Ms. MCMURRAY. There are two Technical Committees, and they are broadly representative of not every Party to the Montreal Protocol, but a range of Parties, including good representation from the United States.

Mr. DAVIS. Over the last couple of years or so, have you all seen any dramatic changes in the attitude or receptivity that these countries have had to our applications? Is it getting tougher, are people losing patience, or do people seem to tend to believe the facts are essentially the same and it is not a big change?

Ms. MCMURRAY. I think I can give you two answers to that. First of all, the process really only began about a year ago, maybe a little bit longer than that, for the first set of exemptions that were requested. And I think at that point there was a great deal of opposition to our application. I think it stemmed from the fact that there wasn't good understanding of what we were asking for, and why. And we spent a good amount of time, either through diplomatic channels or through our technical experts at the U.S. Department of Agriculture and the Environmental Protection Agency, in explaining exactly how we got to the numbers we did. So, it took us maybe 7 or 8 months, but I feel like we made a good case, and that finally there is an understanding of what our numbers represent.

But I should add that there is an impatience. There are a number of countries who want to get to zero, and they don't understand why our numbers aren't close to zero. So, we are going to have to make the case again, it is not going to be easy. Whether the standards will be tougher this year or not is unclear. That we will know probably in the next 2 or 3 months.

Mr. DAVIS. One of the arguments that is obviously made by a number of people in the agriculture community, including from my State, Florida, is that there are no effective alternatives available yet. Are the Parties that judge our application in disagreement with those facts and, if so, what is their view of the facts in that regard?

Ms. MCMURRAY. I think one of the things we have been struggling with with the Technical Committee is an inclination on their part to look at an alternative and assume that it is able to be used in every part of the world, on any crop, rather than taking into account specific circumstances—either climate, or soil, or whatever it might be—in the United States, or in Italy, or whatever country might have a different case.

I think we are finally getting over that hurdle, and it is not an automatic reaction now when they look at alternatives. We can come back to them and explain why it doesn't work in one place.

Mr. DAVIS. If any of the other witnesses would like to comment on any of these matters.

[No response.]

Thank you, Mr. Chairman. Return my 30 seconds—25 seconds.

Mr. HALL. I thank the gentleman. I understand Ms. Capps has further questions. Would you like to ask them at this time?

Ms. CAPPS. If you would be so kind, I have been waiting a long time, and I will try to not take the whole 5 minutes.

Mr. HALL. I gave away most of my time earlier this morning.

Ms. CAPPS. You can't give me anymore?

Mr. HALL. I will yield to you what I have left.

Ms. CAPPS. You are a good friend. Thank you very much.

Mr. Holmstead, getting back into this topic a little more, it just means a lot to me to get some more information from you. You have testified that the estimates of methyl bromide use range from 30 to 50 percent of the 1991 level, correct? I wonder if there are other estimates from EPA beside this 30 percent figure?

Mr. HOLMSTEAD. The only estimate we have done is the one that I explained to you before, and that looks at 2003 usage, and the estimates are in that range. It is really important, I think, to get a sense of how much work goes into——

Ms. CAPPS. That is what I am trying to get a handle on. Where do these estimates come from? Are they confidential, the sources, or how do you arrive at that percentage?

Mr. HOLMSTEAD. We would be happy probably just to send you a document that has all of the different sources, that would probably be the easiest.

Ms. CAPPS. I would appreciate that.

Mr. HOLMSTEAD. The other thing—and Ms. McMurray mentioned this before, too—is the amount of work that goes into the CUE process. We have literally dozens of people from EPA, from USDA, Ph.D. agricultural scientists who work with State people in Florida, California, Georgia, Michigan, throughout the country where methyl bromide is used, to really understand where it is necessary, given the soil conditions. And so when we come up with this estimate of a critical use need for 2005 of 37 percent, it is based on an awful lot of work by a lot people looking at the best available data.

Ms. CAPPS. I am sure that you have worked hard for this. Because our panels aren't all at the table at the same time, I want to just quote from someone who is going to speak at the next panel, Mr. Brown, farmer, Executive Vice President of the Florida Tomato Exchange, from page 3 of his testimony. He says, "The USDA and EPA aren't substantiating their alternatives, their numbers, but we can substantiate that substantial progress has been made in identifying alternatives for a number of uses. This has resulted in a 60 to 70 percent reduction in the amount of methyl bromide used in the United States using 1991 as the baseline year." Where is that in the mix of things, and perhaps others, too, who would have similar kinds of estimates, how does this square with the statements that you are making of use that could be as high as 50 percent, if they are reducing by 60 percent in the field? And that is why I am just wondering how credible this 50 percent could be.

Mr. HOLMSTEAD. Again, I don't know how that number was derived, but it falls within our range. I mean, if he is saying we have reduced by 60 to 70 percent, that means the remaining use would be 30 to 40 percent, and that is within the range that we are already talking about.

So, I think all these numbers are——

Ms. CAPPS. They are estimates, I understand, but let us take the high of his, 70 percent reduction, and you are saying the range could be as much as 50 percent.

Mr. HOLMSTEAD. Right, but we are saying it could be as low as the low 30's, which is consistent with what he estimates—I think we are saying exactly the same thing. And I don't know if he—I am not quite sure how he would know about——

Ms. CAPPS. Well, he will explain it when he testifies.

Mr. HOLMSTEAD. Because he may know a lot about tomatoes in Florida, but I don't know if he has the kind of information we have about total usage and total consumption of methyl bromide.

Ms. CAPPS. He is talking about the whole United States.

Mr. HOLMSTEAD. Well, I should let him speak for himself.

Ms. CAPPS. And I should, too.

Mr. HOLMSTEAD. I would just point out that it is consistent with our estimates. We have looked at a number of different ways of doing this, and it is somewhere between 30 and 50 percent, and he is saying, well, we reduced 60 to 70 percent. That falls right within our range—unless my math is wrong.

Ms. CAPPS. I guess there is about a 10 percent discrepancy. I guess I would like to urge us paying attention to that part.

Mr. HOLMSTEAD. This is something that obviously is important to everyone.

Ms. CAPPS. Thank you. I think I have used way more than the time that I should. Thank you.

Mr. HALL. Mr. Davis, do you have additional questions?

Mr. DAVIS. No, Mr. Chairman.

Mr. HALL. All right. We want to thank this panel, appreciate your patience in allowing us to go vote not once, but I think five times, and during that time they passed my resolution lauding the Apollo astronauts, so you have been part of the process. We thank you for your time and thank you for your assistance, and thank you for what you have done, are doing, and will do for us. Thank you.

I want to thank the second panel also because while those who were sitting at the table, you were also waiting.

All right. We thank this Panel No. 2, Mr. James A. Bair, Vice President, North American Millers' Association; Mr. Reginald Brown, Executive Vice President, Florida Tomato Committee—and you can expect some questions, Mr. Brown, and I think that one of your Members of Congress has been here off and on, waiting to try to make some inquiries. Congressman Foley, Mark Foley, has an interest in this, but he is one of the busier Members of Congress, he's on several very important committees, and we were trying to leave on Friday, now I think we're trying to leave on Thursday, and it is to your benefit if we leave on Wednesday, so we are trying to get out of here.

We have Dr. Michael Mellano, Senior Vice President, Mellano & Company; Mr. Paul Wenger, Second Vice President, California Farm Bureau Federation; Mr. David Doniger, Policy Director, Climate Center, Natural Resources Defense Council; Dr. David K. Mueller, President, Insects Limited, Incorporated; Ms. Vanessa Bogenholm, Owner, VB Farms, Chair, Board California Certified

Organic Farmers, and Mr. James Wolf, Vice President of the Trane Corporation.

At this time, recognize Mr. Bair, ask you to stay within about 5 minutes, if you can, but cover your subject adequately, and we won't be tough on you about time. Thank you.

STATEMENTS OF JAMES A. BAIR, VICE PRESIDENT, NORTH AMERICAN MILLERS' ASSOCIATION; REGINALD L. BROWN, EXECUTIVE VICE PRESIDENT, FLORIDA TOMATO COMMITTEE; H. MICHAEL MELLANO, SENIOR VICE PRESIDENT, MELLANO & COMPANY; PAUL WENGER, SECOND VICE PRESIDENT, CALIFORNIA FARM BUREAU FEDERATION; DAVID MUELLER, PRESIDENT, INSECTS LIMITED, INCORPORATED; DAVID DONIGER, POLICY DIRECTOR, CLIMATE CENTER, NATURAL RESOURCES DEFENSE COUNCIL; VANESSA BOGENHOLM, OWNER, VB FARMS, CHAIR, BOARD CALIFORNIA CERTIFIED ORGANIC FARMERS; AND JAMES WOLF, VICE PRESIDENT, TRANE CORPORATION

Mr. BAIR. I will be brief. Thank you, Mr. Chairman and members of the subcommittee. To your point about Mr. Brown's Congressman, I would just say that every member of the subcommittee that has been here today has a flour mill either in their State or in their specific district. Some of you have many flour mills in your district.

My name is Jim Bair. I am Vice President of the North American Millers' Association. We represent the U.S. wheat, corn and oat milling industry, which is comprised of 46 companies that operate 169 mills and collectively produce more than 160 million pounds of milled grain products every day, and that is more than 95 percent of the industry total.

You have heard us in previous hearings and briefings over the years, talk about the importance of methyl bromide for sanitation, but today I am going to focus on the Montreal Protocol itself.

As you have heard from multiple witnesses already, talking about the reductions that have already been made, and likewise we have also reduced our reliance on methyl bromide by more than 60 percent over the last decade. And, in fact, as you have also heard, as all industries and as a country, we have reduced our reliance on all those ozone-depleting substances by 97 percent.

Well, I would say, as with any problem, the closer you get to the goal, the more difficulty incremental gains become, and I think that eliminating that last 3 percent is going to be obviously the most difficult to reduce.

We believe that the Montreal Protocol process is flawed, and we seriously doubt whether we can ever expect a fair shake from it, and I would like to cite just a few examples. For example, one of the Technical Committees that Assistant Secretary McMurray referred to, in the Spring of 2003, they reviewed our critical use exemption application and gave it a "recommended" status for consideration by the Parties to the Treaty. But then several months later, last fall, a new report came out and said that it had slipped from being "recommended" to merely "noted," which, by the way, wasn't even an option available to them, but they said it is now in this netherworld of being just "noted," neither "recommended" or "not recommended," just noted.

Well, nothing had changed between the spring and the fall. No new chemicals had been registered. No new alternatives had been made available. But, yet, somehow this group of individuals changed its recommendation. Didn't talk to us. Didn't tour any mills. Didn't send us a letter, or ask us any questions. How does that happen? How do these decisions get made? Frankly, the committees are made up of just individuals. Many of them are consultants who are beholden to not even their own countries, maybe just their own clients, and who knows who they are. So, we doubt the sanctity of that process.

Another example, in February of this year, one of the technical committees issued another report, and Representative Issa referenced science—well, this Montreal Protocol committee, in its report of just February, said that they had recommended CUEs, but they recommended more liberally than would be recommended in the future. Well, if they are making decisions based on sound science, how can they say today that "we were too liberal in our review of your CUEs, and we are going to be tougher in the future," rather than say, "sound science will prevail, we will review the data, and we will make our decisions when they are presented to us," but they are announcing in advance that they are going to be more strict.

I would say that the Montreal Protocol that Mr. Waxman referred to, that was passed when the Clean Air Act was amended to put the U.S. on the same phaseout schedule, that is a different Montreal Protocol than we are seeing today. There have been many changes, significant changes that have affected the intent and the operation of how the Protocol works.

Another example, in my own industry, our critical use exemption application, the amount of methyl bromide we had requested was cut by this technical committee, but yet our competitor industries in, say, the U.K. and Canada, same milling equipment, same operations, received no cut. How would that decision be made? How is it that would happen?

I want to point out at this juncture that we have a great deal of respect for Assistant Secretary McMurray and her people, and she is, I think, an eternal optimist and probably wouldn't give you the same sense of frustration perhaps that the rest of us who are sitting at this table, who have been to these Montreal Protocol meetings. I have been there multiple times, and I have seen the way the parties from other countries disrespect the U.S. negotiators, ignore our requests. It, frankly, is very frustrating.

I have been forced to leave meetings. We wanted to just sit in and observe the process, and were told, "No, you can't even sit in the back row of this gigantic auditorium and listen to the deliberations of the parties, this is a closed meeting." So, these are people who are making decisions that affect industries of strategic national importance to the U.S., and we are not even allowed to be in the room to observe.

In 1900, the largest industry in the United States was the flour milling industry, my point being this is a very mature business. We have squeezed out all the inefficiencies that we can. We are the opposite of high-tech or dot.com. Our margins are razor-thin or nonexistent. So, when people talk about alternatives—and you hear a

lot about alternatives—I am happy to debate those alternatives here or in any other forum, but when the alternatives add cost to the business like they do, that is something that is not an attractive proposition for us. We have nowhere else to squeeze inefficiencies out of our business.

In summary, I would just say that we agree with the chairman and Mr. Radanovich and 42 other Members of Congress, who are co-sponsors of H.R. 3403. We think that the decisionmaking authority ought to be returned to the U.S. EPA. It was hardly in our back pocket. These are people that ask tough questions, give thorough analysis and review, and we think that the authority for granting or denying critical use exemption applications ought to remain with the U.S. EPA and not with bureaucrats from countries who, frankly, may be competitors or antagonistic toward us. Thank you, Mr. Chairman.

[The prepared statement of James A. Bair follows:]

PREPARED STATEMENT OF JAMES A. BAIR, VICE PRESIDENT, NORTH AMERICAN MILLERS' ASSOCIATION

Thank you Mr. Chairman and members of the Subcommittee. I am Jim Bair, vice president of the North American Millers' Association. NAMA is the trade association representing 46 companies that operate 169 wheat, oat and corn mills in 38 states. Their collective production capacity exceeds 160 million pounds of product each day, more than 95 percent of the total industry production.

In Congressional hearings and briefings over the years, grain milling executives have discussed with you how methyl bromide is used to meet government regulations, and consumers' expectations, for clean and wholesome food.

They have testified that methyl bromide is easily the most technically and economically effective tool available to protect grain processing facilities and the food produced in them against insect pests.

They have described how, even in advance of the Montreal Protocol phase-out, the industry cut its usage of methyl bromide by more than 60 percent over the last decade.

You have also heard that food and agricultural uses of methyl bromide are of little environmental significance since, according to the Environmental Protection Agency (EPA), "Anthropogenic (man-made) methyl bromide has contributed a total of about 4% to ozone depletion over the past 20 years. Of this, about 2.5% can be attributed to agricultural fumigation activities."

But there is another point upon which I will focus my remarks today. It is this: The Montreal Protocol process to eliminate methyl bromide is broken. Its penchant for secrecy and undemocratic decision-making is irrational and unfair to U.S. farmers and food processors.

Congress ratified the Montreal Protocol treaty with an understanding about the details of the agreement. Yet, year after year, Montreal Protocol committees have acted to change the rules, significantly altering the original intent of the treaty.

When Montreal Protocol changes are debated, the debates usually take place in secret meetings. There is no chance for affected parties to even sit and observe.

When changes are adopted, the changes are never voted upon. The chairman simply declares that there is, in his view, a consensus and he declares the outcome.

When the U.S. attempts to suggest changes to make the Protocol better, developing nations rise in protest. Why? Because the Protocol allows them an additional 10 years to comply with it, an advantage of huge economic value. Those countries, the U.S. agricultural competitors, have made it abundantly clear that their first objective is maintaining an ill-gotten economic advantage, not in fine-tuning a treaty to address an environmental goal.

When the U.S. asked for a simple accounting of the many millions of dollars, much of it from U.S. taxpayers, spent in developing countries for demonstration projects, there was outright refusal and indignation.

Is Congress willing to sit by and watch U.S. sovereignty be diminished by bureaucrats at the Montreal Protocol and competing nations?

American agriculture is justifiably skeptical about fair treatment from the United Nations. The Montreal Protocol approval process is agenda-driven and highly politicized. Ultimately, the fate of the U.S. Critical Use Exemption (CUE) applications

that are recommended to the parties of the Montreal Protocol are determined by a handful of individuals unaccountable to U.S. taxpayers, behind closed doors, despite the hours and expertise EPA committed to this process.

Some of the U.S. critics in the Montreal Protocol negotiations are from countries that have no significant agriculture or food processing industries and therefore never used much methyl bromide to begin with. So it's easy for them to say it ought to be banned.

Others are from countries that are agricultural competitors of the U.S., and they are unlikely to surrender the competitive advantage that has been handed to them.

If agriculture and food processing uses of methyl bromide are very harmful to the environment, then it should be banned globally on the same date, and the sooner the better. But banning methyl bromide in the U.S. while allowing our competitors to continue using it merely shifts jobs and economic activity to those competitors with no real gain to the environment. That is a false choice and the U.S. should not be pressured to make that choice.

It is our view that rule changes implemented since Congress ratified the treaty have drastically changed the intent and operation of the treaty. It is further our view that there is no chance of reforming it to return it to its original intent. Therefore, we endorse the bill HR 3403 introduced by Representative Radanovich and cosponsored by Chairman Hall and 42 other Members of Congress. The bill, if passed, would simply recognize the expertise of the EPA in granting or denying exemption applications, and thereby return to the U.S. the sovereignty to make decisions affecting the viability of an industry of strategic national importance.

That concludes my testimony, Mr. Chairman. I would be happy to answer any questions you or other committee members may have.

Mr. HALL. Thank you.

The Chair recognizes Mr. Brown.

STATEMENT OF REGINALD L. BROWN

Mr. BROWN. Good morning, Mr. Chairman and members of the committee. We appreciate this opportunity to discuss the dilemma that we are in relative to methyl bromide phaseout under the Montreal Protocol.

I represent the tomato industry in Florida, which is the largest tomato production system for fresh tomatoes in the country, and I am also currently the Chairman and President of the Crop Protection Coalition, which represents food and agricultural industries, including nurseries and horticultural industries that rely on methyl bromide to produce, store, handle, and ship a number of agricultural products in the U.S. The Coalition is made up of about 30 agricultural organizations that represent thousands of farmers, processors, and shippers, and billions of dollars of agricultural production, with employment running into the hundreds of thousands.

We are very concerned that we have a situation that does not give us stability in planning and security of supply of a compound that is extremely critical to these enterprises. We have been very active in the process of trying to procure dollars for research for alternatives. All these industries have been engaged in finding resources for alternatives, and have been testing resources for alternatives and, as a testament to that, many of the phaseouts have been a result of those industries adopting alternatives that research has found and that they have been able to bring into their own individual enterprises.

The U.S. use of methyl bromide is down by anywhere from 60 to 70 percent of what its 1991 number was. Now, there is no absolute guarantee what that number is because no one has the ultimate record. But when you review the applications for CUEs and you look at the numbers that were reviewed by the EPA and deemed to be critical uses in the U.S., and you weigh that against the cost

of methyl bromide, which is not cheap—it is used because it is a compound that is effective, far from being cheap—that equates to a use number that the industry is going to as quickly as they can, provided they don't risk their individual enterprises.

Now, every CUE request that came in 2003 for 2005, and the current 2004 requests going in for 2006, were monumental tasks for the industries that made those applications. The applications from Florida alone, if you included the reference material, would have been in excess of 3,000 pages. The EPA-USDA review team had in excess of 40 Ph.D.s, and they spent many, many man-days reviewing these requests from all the parties that made critical use applications in the U.S. They reduced the gross critical use application requests from around 60 percent down to the 37-38 percent range, with that review process. Then that application goes forward to the MBTOC TEAP process, and it gets further reviewed by a group with international authority for a period of 3 days, when they are looking at 116 different applications from around the world, and they further want to cut it again. The review process in the U.S. alone, the application review process, is burdensome to the industry, and it is probably receiving the best science review, with the most knowledgeable scientists that exist in the world. And then we go on to the Montreal Protocol.

Now, if you had to risk your individual enterprise on the basis of when you would have electricity in your home to operate your calculators and your computers today, and you might not have it tomorrow, how would you feel? Methyl bromide is an essential of the enterprises that are making these critical use applications to the process.

You go to the Montreal Protocol, I have been to two of the meetings in the last year, and you sit there as a non-diplomat, looking at the process, and you listen to the conversation on the floor among the delegates, there are parties in those rooms that are basically receiving monies indirectly from the U.S., for a phaseout of methyl bromide. There are parties in there making accusations that those industries in the U.S. that want to use methyl bromide are subsidized and should get more subsidies so that they don't have to continue to use methyl bromide. And I will attest to you that our industry and most of the horticultural industries in this country that I am aware of receive no government subsidies whatsoever.

We are basically bearing the cost and paying the cost of making that change for the betterment of the ozone layer. But when you get us down to the point we don't have anywhere else to go but out of business, it becomes a very unfair and impractical process. Even our own U.S. delegation pled with the group in Geneva just last week for a measure of reasonableness in the evaluation of CUEs and reasonableness in the evaluation and modifications of the MBTOC process, as opposed to an air of suspicion or distrust, which basically is, from a non-diplomatic point of view, what we are seeing.

Then we see countries that manage to coalesce together to look at the U.S. market and say, "Ah, here is an opportunity for us to export." Simple solution to that is keep U.S. producers from pro-

ducing. We have an opportunity here, don't we, from their perspective. And we do this by consensus.

Now, would you like to risk your farm to an enterprise in a system operated in this fashion that is absolutely nontransparent, not open, no recorded vote, obviously not having a very high scientific standard—because I would venture to say the science standard of the review process here in the U.S. is probably better than any in the world, as a credit to our EPA-USDA and State Department staff as they have looked at the proposals of the U.S. industries, and then we go on among our friends to have them make a decision about our future. Don't you know we feel real comfortable being in that position. And, unfortunately, there are not many ways out of it, as we currently see it.

We are going to live day-to-day, year-to-year, in an effort that we have undertaken in good faith to phaseout methyl bromide to get us down to the last gasp, the last ounce, and there are forces out there that would just as soon have the solution for getting us down to that last ounce, to let us go out of business because the critical use process was put in the Montreal Protocol to ensure that the process of phasing out methyl bromide and other compounds under the Protocol didn't put people out of business, but yet the process is being subjected to manipulation where we run the risk of going out of business, and that is American jobs and American farms. And I appreciate the opportunity to be here with you this morning.

[The prepared statement of Reginald L. Brown follows:]

PREPARED STATEMENT OF REGINALD L. BROWN, EXECUTIVE VICE PRESIDENT, FLORIDA TOMATO EXCHANGE

Good morning Mr. Chairman, I am Reggie Brown, Executive Vice President of the Florida Tomato Exchange. On behalf of the tomato growers of Florida, I thank you for holding this hearing on a subject of critical interest to the industry. Florida Tomato growers produce the largest volume of fresh tomatoes in the United States. Prior to working for the industry, I was employed as a County Extension Agent in Southwest Florida where many of Florida's winter vegetable are grown. I grew up in the vegetable business in North Florida and my family continues to operate a family farm in that area. Methyl bromide is a key component in the production systems for of tomatoes, strawberries, bell pepper and other vegetables.

I am also President of the Crop Protection Coalition (CPC). The CPC represents food and agricultural industries, including nursery and horticultural industries that rely on methyl bromide to help produce, store, handle or ship foods or other agricultural products. The Coalition is comprised of 35 agricultural organizations in the United States representing thousands of American farmers, processors and shippers of billions of dollars of agricultural production and employing hundreds of thousands of people. Our commodities, farms and the economic contribution they make are an extremely important economic factor in many communities in the United States. While the crops we produce or handle are diverse, we share a common concern about the potential loss of an important crop protection tool—methyl bromide. Consequently, we are very interested in assuring that adequate tools are available to address the plant pest and disease problems confronting our members.

Since the early 1990's, members of the CPC have been actively engaged in addressing the issues raised by the phase-out of methyl bromide. These include, for example, supporting the increased and targeted investment in research to find alternatives to methyl bromide, working on changes to reduce the potential for emissions from the application of methyl bromide and working with both international bodies as well as our own government on the development of a phase-out policy for methyl bromide.

CPC wishes we could tell the Subcommittee today that viable alternatives to methyl bromide have been found for the remaining uses of methyl bromide. We cannot. The USDA and EPA cannot either. We can state that substantial progress has been made in identifying alternatives for a number of uses. This has resulted in a 60-70% reduction in the amount of methyl bromide used in the United States, using

1991 as the baseline year. All of this was fully documented in the extensive hearing held in June of last year by this Subcommittee to consider methyl bromide and the Critical Use Exemption (CUE) process. The hearing record developed at that time reflects excellent information on the continued need for methyl bromide as well as efforts that had been made to identify and implement potential methyl bromide replacement products by the American agricultural industry and government. CPC was pleased to also hear statements from the Subcommittee making it clear that if the then upcoming First Extraordinary Meeting of the Parties to the Montreal Protocol scheduled for Montreal in March 2004, did not resolve the material substantive issues confronting American agriculture, legislation from this Subcommittee would be forthcoming.

In the opinion of the CPC, despite the excellent, persistent efforts of the U.S. delegation to the Montreal meeting, they were not successful in having the U.S. issues appropriately addressed, particularly on a long-term basis. Rather, we are left with having to run the CUE gauntlet each and every year. This is both frustrating and unfair. I would like to examine the shortfalls of the process relied on by the Parties to the Montreal Protocol using the First Extraordinary Meeting of the Parties in Montreal, the Nairobi and recent Geneva Open-Ended Working Group meetings as a backdrop.

Briefly stated, there appears to be a lack of due process under the Montreal Protocol. Decisions are often not scientifically based. The scientific review of CUE nominations of individual countries appears to be both irrational and extremely weak. Deliberations and discussions on substantive issues are conducted in secret. There are no recorded votes on issues. Rather, the Chair of the meeting apparently exercises discretion to determine how and if particular issues are addressed. Then Subcommittee Chairman Barton and now full Committee Chair, described this very well in the last hearing when he said: "If you have never taken a vote, I think touchy feely is a pretty good definition of how it works. It is not hanky panky. But we have got a problem here in that I am going to stipulate that we are really trying to come up with alternatives that the Bush administration, previous Clinton administration really wants to take methyl bromide off the market so that we can stop the ozone depletion, but it apparently is really difficult to do so. We have these 183 parties who signed the Protocol, but only two countries make methyl bromide and only 5 or 6 really use much of it. So you got 183 decision-makers, but you don't have that many really vested sufferers if it is taken off the market." In short, there appears to be a lack of accountability for persons involved in the decision-making process under the Protocol, particularly co-chairman of Protocol committees such as the Technology and Economic Assessment Panel.

Having attended most of these meetings, I continue to be amazed over how much the views of other countries towards U.S. proposals appear to be influenced more by those countries' feelings towards the foreign policy initiatives of our country rather than the logic or science surrounding the U.S. delegation's proposal. Based on our understanding from our Nation's negotiators, even simple attempts to reduce the burden of the CUE process for applicants, nominating countries and the Parties are not given fair consideration. From the developing nations' perspective, some of whom the U.S. agricultural industry have to compete in the marketplace, the most important thing in the methyl bromide debate appears to be their continued ability to gain access to the Multilateral Fund, a significant part of which is funded by the United States. Our Nation's farmers and processors do not have access to the Multilateral Fund. Therefore, in the U.S. methyl bromide transition costs must be absorbed by the particular commodity involved. The ability to pass these costs onto consumers is next to impossible.

What is particularly frustrating is the attitude of the Parties towards CUE nominations. For example, the 2005 U.S. nomination for CUEs was based in large measure on applications submitted by the various affected sectors. In a number of instances, the applications included hundreds and even thousands of pages of supporting material. These were then carefully subjected to critical review by over 40 scientists from the U.S. Environmental Protection Agency (EPA) and the U.S. Department of Agriculture (USDA). From these applications, the U.S. government developed the amount of methyl bromide and the uses involved that it wanted to nominate for CUE consideration by the Parties under the Protocol.

After this extensive effort, an advisory group to the Protocol reviewed all the U.S. nominations as well as those of the rest of the world in just under 3 days. Initially it appeared that the advisory group was not going to recommend approval for over 60% of the U.S. nominations. However, they subsequently changed their mind but advised that since this was the first CUE nomination, they were being "liberal" in their review of the nomination requests. In the future, the reviews would be more

demanding and rigorous. The clear message was that they can appease the U.S. for one year, but thereafter they don't have to worry about the U.S.

CPC members were struck by this attitude. It reflected a certain arrogance as well as a decision making process that was not based upon demonstrated need. No one from the advisory committee bothered to call me to request to tour our productions area and see how we use methyl bromide and have utilized alternatives where possible. What we have been told is that the attitude under the Protocol is there is no God given right to grow any crop in the United States if it can't be grown without methyl bromide. Rather, production areas simply have to shift to other areas if the chemical is needed, or in their view, have our U.S. consumers be more dependent on imports. In other words, communities must be uprooted to eliminate this chemical regardless of the impact from such disruption.

Something must be done to fix this process because it simply does not work for methyl bromide. U.S. agriculture is clearly transitioning away from methyl bromide. It continues to need time to help make that transition without unnecessarily disrupting people's jobs, their homes or their communities.

I appreciate this opportunity to provide this testimony. We certainly look forward to Congressional action including the action of your Subcommittee to help resolve our problem. Congressman Hall clearly annunciated an approach at the last hearing that we would support and recommend to this Subcommittee for action, namely: "But they ought to renegotiate, the United Nations, for our people, the Montreal Protocol that allowed the United States more time beyond 2005, because it was pushed on us by developing countries such as Mexico and China and others that have the chemical available at least until 2015. To our detriment, a lot of them in northern Europe, those countries led the effort in the Montreal Protocol to eliminate the product, but these nations have a very little need for it because of favorable climatic conditions. And if they can't do that, then we ought to have the courage to put some legislation on the books to amend the U.S. Law to a phase-out level of 50 percent that was in effect prior to 2003. I think we owe that." Certainly the legislation authorized by Congressman Radanovich (H.R.3403) provides another opportunity for this Subcommittee to exercise leadership on this issue.

Mr. HALL. Thank you, sir. The Chair recognizes Mr. Issa to introduce Mr. Mellano.

Mr. ISSA. From the great State of California. Dr. Mellano is a major employer in my district, and happens to be involved in what my district is best known for, which is the nursery production industry. Among other things, we are called the "Flower Capital of America," at least by ourselves. Thank you, Mr. Chairman.

Mr. HALL. And your Congressman is a major part of this committee. He attends most of the meetings, asks very good questions, and always stands up for California, especially against Texas.

Mr. ISSA. As best I can, Mr. Chairman.

STATEMENT OF H. MICHAEL MELLANO

Mr. MELLANO. My Congressman is a good guy. We appreciate him.

Mr. Chairman and members of the committee, we appreciate the opportunity to testify. I am here for the Society of American Florists, the American Nursery and Landscape Association, and the California Cut Flower Commission.

As you now know, I am a cut flower and foliage grower, and we also produce bulb crops in Southern California, in San Diego County.

With your permission, I submit my written testimony, and I will summarize it here. Before I start that, I would like to remind you that our crops represent 11 percent of the value of the U.S. agricultural crops, and we are the No. 3 crop in the United States, after corn and soybeans.

I think the main point I want to make today is that our industry, the flower and nursery industry, we have met our obligations

under the terms of the Protocol. The Protocol calls for us to do research to find alternatives, and actually we have been doing that at our company for 40 years because we are looking for a cheaper way to go than methyl bromide, and we have invested hundreds of thousands of dollars in the last few years, to come into compliance with the Protocol. And we are using the alternatives that are technically and economically feasible. We are using all of them in some way. However, in some of our cases, the reduced productivity and the increased production costs don't allow us to switch to methyl bromide. In addition, many at the United Nations recommended alternatives that don't work in our operation, and I don't believe the Protocol calls for us to use somebody else's data.

Now, the Treaty specifically says that until technically and economically feasible alternatives are available, we are entitled to an exemption. But we, as cut flower growers, have very little confidence that we are really going to get what we are entitled to, and it is going to be very difficult for us to remain competitive without the use of methyl bromide, for the reasons that have already been mentioned.

Now, my written testimony talks about alternatives in detail, and I won't go over that, but if there are questions, I will be glad to answer them.

In addition to that, I brought along a copy of our CUE application for 2006, and this is it. And I would like to turn it in because it gives the details of some of the research that we have done.

Mr. HALL. You are going to put it into the record?

Mr. MELLANO. I would like to, if that is possible.

Mr. HALL. Is there objection? The Chair hears none. It will be admitted.

[The information referred to is retained in subcommittee files.]

Mr. MELLANO. Now, based on our research results, and we are prepared to stand on our results—we have the data, we are entitled to a CUE, but we are afraid we are not going to get it from the United Nations, that is our concern, same as the previous people.

Now, I attended the meeting in Montreal, and to me the process is not science-based. It is very, very political. In my personal opinion, it is not working because several countries have an underlying agenda, and that agenda is to undermine U.S. businesses. It is very obvious when you are there. They ignore the data. They say what they want to say. They quote data that has not been made public, and I don't see how you can do that.

Now, I will give an example of what I think is wrong. I will just give one, and I think that example is China. China is not a party to the Protocol. China is producing and marketing methyl bromide on a worldwide basis. And China is rapidly expanding their horticulture business for export. So, because they are not a party to the Protocol, they don't have to abide by it. But they are arguing in favor of banning methyl bromide, even though they themselves don't have to comply. Now, that just doesn't seem fair to me. That is not the system I am used to.

Now, it is clear to me that the EPA is doing a good job, but I don't think the U.N. decision-makers want to listen to us, and their rulings as to feasible alternatives just don't work all the time here.

So, in closing, I appreciate your time, and we appreciate all the help you are giving us. And we ask you to support Radanovich's bill, H.R. 3403, because that is going to guarantee that we get a fair shake, and that is all we want, and a fair shake based on the science. That is what we want. Thank you.

[The prepared statement of H. Michael Mellano follows:]

PREPARED STATEMENT OF H. MICHAEL MELLANO, SENIOR VICE PRESIDENT, MELLANO & COMPANY ON BEHALF OF THE SOCIETY OF AMERICAN FLORISTS AND THE CALIFORNIA CUT FLOWER COMMISSION

Chairman Hall, Ranking Member Boucher, and Members of the Committee, we are grateful for the opportunity to present joint testimony on behalf of the nursery, landscape and floriculture industry of the U.S. The topic of continued availability of methyl bromide to U.S. nursery and floriculture growers is of huge importance to our industry.

The Society of American Florists (SAF) is the national trade association representing the entire floriculture industry, a $19 billion component of the U.S. economy. Membership includes about 14,000 small businesses, including growers, wholesalers, retailers, importers and related organizations, located in communities nationwide and abroad. The industry produces and sells cut flowers and foliage, foliage plants, potted flowering plants, and bedding plants.

The California Cut Flower Commission (CCFC) is a non-profit public corporation formed in October 1990 by and for growers, under the laws of the State of California. Its mission is to provide a unified effort by growers to enhance the performance of the California cut flower and greens industry, by providing promotion, marketing, government education, and research on behalf of the industry. It was voted into being by a referendum of cut flower growers and is financially supported by grower assessments on the sales of fresh cut flowers and cut greens.

In crop value, nursery and greenhouse crops have surpassed wheat, cotton, and tobacco and are now the third largest plant crop—behind only corn and soybeans. Nursery and greenhouse crop production now ranks among the top five agricultural commodities in 24 states, and among the top 10 in 40 states. Growers produce THOUSANDS of varieties of cultivated nursery, bedding, foliage and potted flowering plants in a wide array of different forms and sizes on 1,305,052 acres of open ground and 1,799 million square feet under the protective cover of permanent or temporary greenhouses.

I. THE MONTREAL PROTOCOL CRITICAL USE EXEMPTION (CUE) PROCESS IS SIMPLY NOT WORKING, AND CONGRESS MUST ACT TO PROTECT U.S. GROWERS.

The Montreal Protocol, to which the United States is a signatory, clearly sets out a Critical Use Exemption process. If practicable and economical alternatives are NOT available, then growers are to be allowed to continue use of methyl bromide. This concept is not complex, and its intent is clear. If growers have made an effort to find alternatives that work, and have failed to do so, they should not be put out of business because of the requirements of the treaty.

Yet growers being put out of business is exactly what we are facing today, because the Critical Use Exemption (CUE) process is not functioning as it should.

U.S. growers can—and will—comply with the terms of the Montreal Protocol. When we have economical and practical alternatives to methyl bromide, we will use them. We have made our best efforts, and invested hundreds of thousands of dollars in research to find workable alternatives. But today, we remain without those alternatives—and we are faced with the January 1, 2005 deadline, after which the future is unknown.

This testimony will outline the difficulties faced by the floriculture and nursery industry in what has become a very dire situation. We will first discuss how methyl bromide is used, and the complexity of the industry. Secondly, we will discuss the alternatives available to ornamental growers, and why we still require methyl bromide in order to remain competitive. Finally, we will focus on the current CUE process, and why it is not functioning as was intended by the signatories to the treaty.

In summary, it is imperative that this Congress move to fix the currently broken process. We support the legislation (H.R. 3403), introduced by Representative George Radanovich, or similar legislation, which we believe will protect U.S. interests without abrogating our international treaty responsibilities.

II. METHYL BROMIDE USE IN THE FLORICULTURE AND NURSERY INDUSTRY

Methyl bromide is a critically important part of ornamental production in many areas of the U.S. Field-grown cut flowers, shade house production of some flowers in the ground, caladiums and even treatment of dried flowers and materials such as tree fern totems (used for some vining foliage plants), are key uses in ornamental production.

The diversity and intensity of cropping systems in ornamental production greatly aggravates the issue of the pending loss of methyl bromide, especially when our main competitors in third-world countries will continue to be able to use methyl bromide well beyond the U.S. phase-out, giving them a strong competitive advantage.

Our industry must survive in an international market, with competitors who will have the advantage of being able to continue to use methyl bromide.

When ornamental crops are produced in open fields, space and timing are key issues. Think of a patchwork "crazy quilt"—with small fields containing different types of flowers or foliage, planted at different times, with different pest control and other growing requirements. Flexibility and adaptability to the needs of each specific type of crop are key factors in pest control. As discussed below, for example, simply applying an herbicide to one plot of land could mean that that land becomes unusable for crops for a time of at least several months. We cannot afford to let our land lie idle, with no crops growing on it, for those several months. Yet that is what the CUE process, as it now stands, would force us to do. We cannot remain competitive, in an international market, without being able to use methyl bromide—until economic and practical alternatives are found.

At Mellano & Company, in southern California, we produce over 50 different crops with upwards of 20 different varieties within a crop. New crops are our lifeblood and are being introduced annually at an extremely rapid pace, often with only a few years of market appeal. Without methyl bromide, we will not be able to respond to these rapidly changing market trends. The cost of establishing ornamental crops is extremely high—in some crops, costs can exceed $50,000 -$60,000 per acre. Methyl bromide helps insure that our investment isn't decimated by plant diseases.

Similarly, for Florida growers, methyl bromide has been one of the most crucial tools used by the flower industry. Due to the Florida climate, without using a sufficiently clean soil to plant into, growers could not compete in the world flower industry. Growing any crop is difficult due to a variety of challenges growers deal with every day from cold to heat to rain to drought. Florida growers have stated that, if they lost methyl bromide tomorrow, they would have to shut down a large portion of their businesses, due to the fact that there are no practical chemical alternatives. Despite the fact that the whole agriculture sector, along with the USDA, have been looking for a substitute for years, no suitable substitute has been endorsed by anyone involved with that effort.

We submit, for the hearing record, a copy of the *Critical Use Exemption Request For Methyl Bromide Use In Cut Flowers And Field-Grown Bulbs,* prepared by Dr. A. R. Chase on behalf of U.S. flower and foliage growers, as their CUE exemption request for the years 2005-2006. That report gives an excellent summary of the industry's need for methyl bromide.

III. ALTERNATIVES

Our industry, and the U.S. government, have spent hundreds of thousands of dollars on research for methyl bromide alternatives over the past 20 years—yet no single alternative has yet been found which will allow growers to economically and practically replace the use of methyl bromide in their complex and ever-changing growing operations. Thus, under the terms of the Montreal Protocol, we must still be allowed to use methyl bromide. However, it does not appear at this point that we will be allowed to do so.

During the 1960s, as a graduate student at the University of California-Riverside, I worked for five years in the laboratory of Dr. Don Munnecke, one of the world's leading researchers on methyl bromide and methyl bromide alternatives. During that time, we were working on many of the alternatives that are still being considered today—solarization, steam, and alternative fumigants, trying to find alternatives from a production and economic point of view. Despite the fact that 40 years have intervened, we still have not found alternatives that are economically viable, or effective from a production point of view.

In the early 1990s, the California Cut Flower Commission (CCFC) took the lead in funding research on methyl bromide alternatives in floriculture, by providing $150,000 to begin research projects. Since then, CCFC has continued grants over the past 12 years, with hundreds of thousands of private industry funds invested in research on alternatives. Research has involved everything from alternative fumi-

gants, solarization, treatment of soil with steam, microwave or UV, soil fertility and amendment with green manures and biological agents. The current alternatives include fumigants such as 1, 3-D (Telone), chloropicrin, Dazomet (Basamid) and metam sodium (Vapam) applied alone and in various combinations. Those are discussed in more detail below. In each case, it should be noted that the Montreal Protocol requirements of "practical and economic" are *not* met. Nor do combinations of these alternatives meet those requirements, at this point in time.

Chloropicrin. The efficacy of this chemical is very good on diseases and some weeds. The problem is that it does not work in all cases, nor for all floral crops, so even if we can use it in part, or in specific places, it will not replace methyl bromide. It will simply supplement our use of methyl bromide. It is also extremely toxic—chloropicrin is "tear gas."

Telone. Again, the efficacy is very good on nematodes. However, Telone also does not fulfill all our needs, and it has very high toxicity.

Vapam (metam sodium). Metam sodium also has a high efficacy—but it does not work reliably under each our production regimes. Its toxicity is extremely high—and at this point, it is uncertain whether the U.S. Environmental Protection Agency (EPA) will renew the registration, so that it cannot be considered for long-term availability.

Methyl iodide. This chemical is new, and while it has very good potential, it is not yet registered by EPA. Its toxicity is likely to be high.

Herbicides. Various herbicides are available on the market, many of which are very effective. The problems are, again, that if a crop is grown for two or three months in one spot in a field, then to use herbicides on that spot might make it unusable again for growing for several months to several years, depending upon the particular herbicide and the soil conditions. Obviously, that makes reliance on herbicides uneconomic. Again, toxicity is high.

Solarization. This method, which is widely touted by countries arguing against the U.S. exemptions, has only very limited geographic potential use in the U. S. ornamentals industry. When it works, it works well. However, it only works when the soil and climate conditions are just right, so it cannot be considered an alternative.

Steam. Again, the efficacy of steam is good. However, it is technically not feasible at present for field applications. It requires an enormous investment in terms of capital and research costs as to the specific site of use. To install steam at our own operations in California would make our crops uneconomic. Of course, it also requires the use of fossil fuels, with subsequent environmental consequences.

New Application Technologies (various mulches, various formulations). While eventually, sophisticated application and cropping technologies may become usable, they are not yet technically feasible. In any event, most, if not all, application technologies will continue to require the use of methyl bromide as one component.

Crop rotation. Of course, the efficacy is good. However, it requires greatly increased acreage to maintain production. This significant increase in investment makes it impossible to grow the crops we now grow and sell, relying simply on this tool.

Various organic practices. Again, the efficacy can be good, depending upon the specific practice. However, the problem, as with crop rotation, is in the practicability. Organic practices are being integrated more and more into crop production—but, among other things, they usually require a significant increase in labor or other costs, making them uneconomic as well as, at this point, not practical.

Plant breeding/genetic engineering. This alternative is a very good future alternative. Again, however, it will not work in all cases. Moreover, the resistance to acceptance by the general population of genetic engineering makes this alternative extremely unusable at any time in the near future.

None of these alternatives can give the control of the pests that methyl bromide can. They very often require use of additional pesticides to improve efficacy. This use of additional pesticides results in an increased load on the environment over the current scenario. There are, of course, no guarantees that these materials will remain available in the future—many alternatives being considered today would have to go through a lengthy EPA registration process before they were commercially usable. In some cases, the alternatives are much more toxic—both to the environment and to workers and perhaps even to consumers—than methyl bromide. Our day-to-day workers, for example, could be exposed throughout the whole crop cycle.

Economics: The combination of increased land required for production, costs of materials, reduced production, and reduced quality makes all of

the above alternatives economically infeasible at present. Some of these materials are very good alternatives to methyl bromide, and are indeed being used and have allowed us to reduce our use of methyl bromide, floral and foliage growers in the U.S. still require methyl bromide in order to remain internationally competitive.

It must be noted that our CUE application, as submitted through the process to EPA and the MBTOC, takes all of these into account in the amounts requested. Our industry is not simply relying on methyl bromide. The ornamentals industry is making efforts to move forward into the use of alternatives. However, it is not yet economically or technically practical for us to do so. Therefore, under the terms of the Montreal Protocol itself, our CUE application should be approved.

The use of chemicals in our industry, in California, in Florida, and in other parts of the U.S., is the subject of much research, both publicly and privately funded, as growers attempt to move toward more environmentally and worker-friendly chemicals and toward integrated pest management (IPM) practices, which also reduces our production costs. Yet in the case of methyl bromide, our industry is being pushed to rely on those more toxic, more harmful chemicals, which runs counter to all of the public policy concerns we are discussing and which our industry is investing in and is attempting to embrace.

IV. THE CRITICAL USE EXEMPTION PROCESS

Perhaps the most troublesome aspect of the methyl bromide story involves the application for a "critical use exemption." The process is extremely costly and burdensome, and there are no guarantees that an exemption will get through U.S. EPA, let alone that the exemption will be gathered by the international review panel. Our major competitors in third-world countries, however, will continue to have methyl bromide available for their usage for several years beyond the U.S. phaseout.

The Society of American Florists joined with the California Cut Flower Commission and with Florida growers to file a joint application, covering uses by ornamentals growers in both California and Florida, for the years 2005 and 2006. The application (submitted for the hearing record as a part of this testimony) summarized thousands of pages of data and research into about 100 pages of "proof" that the growers represented continue to require methyl bromide.

The application was submitted to EPA on time, and we understand that EPA forwarded some version of that application on to the MBTOC. However, we do not know what EPA's "summary of our summary" contained—or whether EPA's summary adequately states our case. We have received follow-up questions from MBTOC that clearly demonstrate that the complexity of the floral industry is not understood either by EPA or by MBTOC, despite EPA's very diligent efforts to do a good job of presenting our application.

V. THE CUE PROCESS SHOULD WORK TO ALLOW U.S. GROWERS TO CONTINUE TO USE METHYL BROMIDE—BUT IT IS NOT DOING SO. WHY SHOULD THE FLORAL INDUSTRY CONTINUE TO HAVE A CUE?

The U.S. industry has fulfilled the terms of the Montreal Protocol:

1. It has done and continues to do research to find alternatives, as called for in the treaty.
2. It has reduced and will continue to reduce its use of methyl bromide, *as economically and technically feasible alternatives become available*—as called for in the treaty.

The Montreal Protocol requires that, where economic and technical alternatives are not available, the industry must be allowed to continue to use methyl bromide. Our industry does not have economic and technically feasible alternatives at this time—therefore, our industry should be granted the CUE as requested.

The fact is that decisions are being made by the international treaty body, not based on the complexity of our industry or on the full information we have provided in the CUE application, but on a very minimal understanding and on a predetermined goal of "getting us to zero use." Getting U.S. agriculture to "zero use" is not required by the Montreal Protocol. All that compliance with this treaty requires is that the industry be without economic and practical alternatives. We believe that we have well-stated that case—yet our hopes for obtaining an exemption, at this point, are not high.

The bottom line is that the decision will be made on our application for 2005-2006, at the Prague meeting of the treaty parties—which takes place in November, 2004. We will not know until after that meeting (if then, since the Nairobi meeting pro-

duced no decisions), whether or not U.S. growers will have methyl bromide available for crops that need to be planted early in 2005. No industry can afford to live with that kind of economic uncertainty—nor should it be required to do so.

VI. WHAT IS HAPPENING AT THE INTERNATIONAL LEVEL THAT MAKES THE CUE PROCESS, WHICH IS MANDATED BY THE MONTREAL PROTOCOL ITSELF, BREAK DOWN?

The discussion and stated agenda at the international meetings (the Nairobi meeting last year, the Montreal meeting this spring, the most recent Vienna meeting, and most likely the Prague meeting in November) is the CUE process. However, the underlying agenda, for many of the participants, is completely different—*and has nothing to do with the Montreal Protocol treaty.*

Two examples:

Europe. Several northern European countries have banned the use of methyl bromide. Thus, crops which still require methyl bromide have moved into southern Europe or into third-world countries. Even if the product is produced in a third-world country on a farm owned, from a distance, by a European company, that third-world country can continue to use methyl bromide until 2015. Thus, the U.S. grower *who wants to keep production in the U.S.* is at a competitive disadvantage. Northern European countries are arguing vigorously against U.S. applications for methyl bromide use—based, in many cases, on their own ability to obtain a competitive advantage by doing so.

China: China is on record as being in favor of barring the production of methyl bromide. However, because China is not a party to the treaty, it can continue to produce the chemical—so if production is stopped, it helps them on the world market. It should be noted that China is also moving toward becoming a major producer of horticultural crops—and they will continue to use, and increase their use of, methyl bromide.

CONCLUSION

As a witness, I testified at the June, 2003 hearing before this Committee. Many members strongly stated at that hearing that, if the international process does not work, this Committee would consider legislation. Mr. Chairman, and Members of the Committee, we are at that point. The CUE process is not working, and U.S. industry is in danger of becoming uncompetitive as a result. The Montreal Protocol itself provides that growers must be allowed exemptions if economic and practical alternatives are not available. We have shown that those alternatives are not available to us. Yet we are NOT receiving the exemptions we need. It is time for this Committee to provide legislative insistence that will support U.S. growers.

The United States government must support the U.S. agricultural economy in ensuring that methyl bromide remains available to growers, until suitable alternatives are found and can be implemented. We cannot simply bow to decisions which appear to be predetermined and which will put our agricultural sector at a very significant competitive disadvantage with growers in third-world countries. The phaseout of methyl bromide is a critical issue for U.S. agriculture, and we respectfully request this Committee for support and assistance in reaching a reasonable solution to what is rapidly becoming a crisis for many producers, and the workers they employ across the United States.

[Additional materiial submitted is retained in subcommittee files.]

Mr. HALL. That is not asking for too much. Thank you.

Dr. Wenger.

STATEMENT OF PAUL WENGER

Mr. WENGER. Thank you, Chairman Hall, members of the committee, for taking the time today for this very important topic. My name is Paul Wenger. I am a third-generation farmer from Modesto, California. My family grows almonds and walnuts. And I also currently serve as the Second Vice President of the California Farm Bureau Federation.

Last year, Bill Pauly, our Farm Bureau President, was before the same committee to testify about the many benefits that methyl bromide provide to our agricultural producers, as well as the consumers who depend upon us for a safe and reliable food supply. So,

today I would like to focus not so much on those as the CUE process and what Congress should do to help solve those problems.

At the aforementioned hearing before this subcommittee last summer, committee members voiced concerns about the international treatment of and fairness toward the U.S. critical use exemption requests. Then Chairman Barton went on to suggest that if the Montreal Protocol process of granting CUEs was not improved, the committee would be willing to take legislative action. Regrettably, circumstances have not improved for U.S. users who have no other choice than to depend on methyl bromide. We hope this subcommittee remains open to taking legislative action on our behalf.

The CUE process is designed to provide leave for the most critical uses. Producer needs are well documented by the great efforts of both the USDA and the EPA. We thank the administration for their work. USDA, EPA and the State Department have put in tremendous efforts in pursuit of a reasonable outcome.

The 2005 U.S. CUE nomination requested a consumption allowance of 39 percent of the 1991 established baseline. This spring, the parties allowed the United States only a 35 percent CUE based on consumption baselines, and then added a requirement that domestic production be capped at 30 percent. Nowhere in the Protocol is there any mention of direct limitation solely on production. The parties created a new requirement. Unfortunately, because U.S. farmers need to have an approved CUE percentage to prepare for the 2005 planting season, our delegation was effectively forced to accept the objectionable terms.

China and developing nations such as Chile and Mexico will have access to methyl bromide until 2015, while the U.S. phaseout starts in just a few months. Coincidentally, many of these developing nations and China are major competitors with U.S. producers in specialty crop markets.

Many individuals and groups have questioned the legitimacy and objectivity of the CUE process. The actions of the parties since last summer, most recently in the Working Group meetings in Geneva, again confirmed that the international process is not objective, transparent, or science-based.

The Farm Bureau strongly believes that the obstructionist actions of some of the international community translate to other countries making planting decisions for our U.S. farmers, and threatening our competitiveness and economy.

We have seen and experienced enough of the Montreal Protocol process to be convinced that the CUE process, as it currently exists, cannot be relied on to fairly evaluate U.S. agriculture's legitimate methyl bromide needs.

The Farm Bureau joins others who believe that improvements must be made to the Montreal Protocol CUE process. Specifically, first, the CUE process must be science-based and fair to all participants. We believe the U.S. Government clearly laid out the necessary information to prove that the requirements for granting a CUE under the Montreal Protocol were met. Unless there is a legitimate scientific question, CUE approval should not be open to political negotiation.

Second, future CUE negotiations should not include additional limits or reductions to production. The terms of the Montreal Protocol intended for CUE to be granted based on consumption, not production. Unfortunately, the parties created new Treaty terms by limiting U.S. production of methyl bromide to 30 percent of the baseline production. The United States has complied with the terms of the Protocol. We believe it is only fair the parties do the same by not including production limits in the CUE.

And, third, the international process should allow for multi-year CUE requests. U.S. negotiators have proposed this concept to the Parties, but so far it has been rejected with little debate on its merit. We support a multi-year CUE because it would streamline the application process and relieve yearly burden on the applicants and agencies. Most importantly, a multi-year CUE would allow for better planning among users. Better planning leads to more flexibility, and more flexibility could lead to further reductions in the need for methyl bromide. We have seen and experienced enough of the Montreal Protocol to be convinced that there is little hope that the CUE process, as it currently exists, can be relied on to fairly evaluate American agriculture's legitimate methyl bromide needs.

The Farm Bureau supports H.R. 3403, sponsored by yourself, Mr. Chairman, and Congressman Radanovich and 42 other sponsors. The legislation would allow use of methyl bromide, as approved by the EPA, in accordance with international standards. H.R. 3403 provides an incentive for the Parties to the Protocol to fairly consider future U.S. CUE requests.

We respectfully request Congress' formal consideration of H.R. 3403 to provide fairness and certainty to domestic users depending on critical uses of methyl bromide. Further, we encourage Congress to support and continue to oversee the administration's ongoing efforts to reform the CUE process as soon as possible.

While American farmers have made great strides in achieving reduction in methyl bromide, other countries, some Parties to the Protocol and some not, continue increasing their usage and production of methyl bromide. Despite our best efforts, American agriculture has come to a breaking point on further compliance with the phaseout. Unfortunately, the actions of some in the international community clearly illustrate that the Protocol is no longer about ozone protection.

I thank you for the opportunity, and look forward to any questions you may have. Thank you.

[The prepared statement of Paul Wenger follows:]

PREPARED STATEMENT OF PAUL WENGER, SECOND VICE PRESIDENT, CALIFORNIA FARM BUREAU FEDERATION ON BEHALF OF THE AMERICAN FARM BUREAU FEDERATION

Good morning Mr. Chairman, members of the Committee. My name is Paul Wenger; I farm in California's Stanislaus County producing walnuts and almonds. I am second vice president of the California Farm Bureau Federation. On behalf of the thousands of Farm Bureau members across the nation who depend on methyl bromide, I thank you for the opportunity to address you today regarding our increasing concern about the critical use exemption process under the Montreal Protocol.

Methyl bromide is an indispensable pest control tool used in crop production, grain storage, food processing and general pest management. For some agricultural users, its availability is essential to providing consumers a safe and reliable food supply. As you are aware, non-critical use of methyl bromide in this country will

be phased-out starting in January of next year, in compliance with the Montreal Protocol as incorporated in the federal Clean Air Act.

I am here to make three points:

1. Securing the continued, adequate availability of methyl bromide is essential and justified for U.S. users included in the U.S. critical use exemption (CUE) request.
2. The international Montreal Protocol CUE review process is flawed.
3. Congress must act to ensure U.S. farmers have access to the amount of methyl bromide needed to provide consumers a quality and affordable domestic product.

IMPORTANCE

Methyl bromide has two main agricultural uses: fumigation of soil prior to planting—called pre-plant treatment; and fumigation of harvested commodities and foods—called post-harvest treatment.

The use of methyl bromide as a pre-plant treatment is essential to the production of strawberries, tomatoes, grapes, almonds, walnuts, peppers, eggplant and cut flowers. 2003 data suggests that 95 percent of strawberry acreage in California and nearly all strawberry acreage in Florida uses pre-plant fumigation. Because most domestic market supply comes from these two states, the U.S. strawberry industry will see some of the most significant projected losses due to the phase-out of methyl bromide—an estimated nationwide loss of $131.5 million to producers. A collaborative USDA and University of Florida study found that a complete ban on farm uses of methyl bromide for annual fruit and vegetable crops in California and Florida would result in estimated losses of "about $200 million annually in gross shipping point revenues, which represented about 20-30 percent of estimated revenues from treated commodities in each state."

Where no feasible alternatives exist, pre-plant treatment with methyl bromide controls soil-borne fungal pathogens and various pests that reduce vigor of newly planted crops. Use of methyl bromide means yields improve because the need to hand weed and cultivate soil is reduced, allowing for more efficient irrigation. Better yields mean better margins, and more financial stability for obtaining next season's planting loans.

Methyl bromide is an important post-harvest treatment used to meet sanitary standards set by the Food and Drug Administration and importing countries for grains, dry beans, raisins, prunes, figs, dates, almonds and walnuts. These products are typically treated before and during storage, and prior to being packed or shipped. Storage structures, containers and processing facilities are also fumigated to ensure food safety.

For those without feasible alternatives, methyl bromide continues to be the only consistently effective and economical treatment that can be applied within a flexible timeframe. With rare exception, it works every time, all the time.

Since U.S. ratification of the Montreal Protocol, agriculture has devoted tremendous time, money and effort into finding technically and economically feasible alternatives for methyl bromide. Public and private research efforts are estimated to have totaled over $120 million. The good news is the U.S. has drastically decreased its non-essential use of methyl bromide because some alternative treatments are now available for some users. The bad news is no feasible alternatives exist—or, for that matter, are expected soon—for most of the agricultural users currently requesting CUE consideration. Despite the claims, there simply is no one-size-fits-all replacement or combination of replacements that works as effectively, consistently or affordably as methyl bromide.

In the end, American consumers will suffer greatly from agriculture's loss of methyl bromide. The phase-out means the United States will increasingly depend on imported food sources that are potentially less regulated, less reliable and less safe.

MONTREAL PROTOCOL PROCESS IS FLAWED

At a similar hearing before this subcommittee last summer, committee members voiced concerns about the international treatment of and fairness towards the U.S. CUE request. Then-chairman Barton went on to suggest that if the Montreal Protocol process of granting CUEs was not improved, this committee would be willing to take legislative action. Regrettably, circumstances have not improved for U.S. users depending on methyl bromide. We hope this subcommittee remains open to taking legislative action on our behalf.

The terms of the protocol intend for the CUE process to provide relief to agriculture's critical, well-documented need for methyl bromide. American users commit huge amounts of time, expertise and financial resources in preparing the annual

U.S. CUE. With the help of USDA, EPA invested unprecedented time and resources into submitting a thorough, well-substantiated CUE nomination package to the international reviewers. And, in the last year, the State Department has expended tremendous effort in advocating for American farmers and defending the U.S. CUE request against relentless baseless questioning from the parties.

Farm Bureau commends the administration and expresses our gratitude for improved communication with the U.S. delegation to the Montreal Protocol for their aggressive pursuit of a reasonable CUE process. The parties to the protocol have so far not granted the U.S. the amount of methyl bromide we need. The parties continue to consider improvements to the CUE process that would provide better certainty for users.

The 2005 U.S. CUE nomination requested a consumption allowance of 39 percent of the 1991 established baseline. This spring, the parties instead reluctantly "allowed" the United States only a 35 percent CUE based on consumption baseline, and then added a requirement that domestic production be capped at 30 percent. Nowhere in the protocol, is there any mention of direct limitations solely on production—the parties created a new requirement. Unfortunately, because U.S. agriculture had to have an approved CUE percentage to prepare for the 2005 planting season, our delegation was effectively forced to accept the objectionable terms.

China and "developing" countries can continue to use methyl bromide long after the United States and other "developed" nations have been cut off. China and developing nations, such as Chile and Mexico, will have access to methyl bromide until 2015 while the U.S. phase-out starts in just a few months. Coincidentally, many of these developing nations and China, are major competitors with U.S. producers in specialty crop markets that use methyl bromide such as tomatoes, peppers and strawberries.

Many individuals and groups have questioned the legitimacy and objectivity of the CUE process. The actions of the parties since last summer—most recently in the working group meetings in Geneva—again confirm that the international process is not objective, transparent or science-based. Farm Bureau strongly believes that the obstructionist actions of some in the international community translate to other countries making planting decisions for American farmers, and threatening our competitiveness and economy. We have seen and experienced enough of the Montreal Protocol process to be convinced that the CUE process—as it currently exists—cannot be relied on to fairly evaluate American agriculture's legitimate methyl bromide needs.

Farm Bureau and other allied groups believe that improvements must be made to the Montreal Protocol's CUE process, specifically:

(1) The CUE process must be science-based and fair to all participants. We believe the U.S. government clearly laid out the necessary information to prove that the requirements for granting a CUE under the Montreal Protocol were met. Unless there is a legitimate scientific question, CUE approval should not be open to political negotiation.

(2) Future CUE negotiations should not include additional limits or reductions to production. The terms of the Montreal Protocol intend for CUE to be granted based on consumption, not production. Unfortunately, the parties created new treaty terms by limiting U.S. production of methyl bromide to 30 percent of baseline production. The United States has complied with the terms of the protocol. We believe it only fair the parties do the same by not including production limits in the CUE.

(3) The international process should allow for multi-year CUE requests. U.S. negotiators have proposed this concept to the parties, but so far it has been rejected with little debate on its merit. We support a multi-year CUE because it would streamline the application process and relieve yearly burden on the applicants and agencies. Most importantly, a multi-year CUE would allow for better planning among users: better planning leads to more flexibility and more flexibility could lead to further reductions in the need for methyl bromide.

CONGRESSIONAL RELIEF IS NEEDED

Farm Bureau supports H.R. 3403, sponsored by Representative Radanovich and 44 additional co-sponsors. The legislation would allow use of methyl bromide as approved by EPA in accordance with international standards. H.R. 3403 provides an impetus for the parties to the Protocol to fairly consider future U.S. CUE requests. We respectfully request Congress' formal consideration of H.R. 3403 to provide fairness and certainty to domestic users depending on critical uses of methyl bromide.

Further, we encourage Congress to support and continue to oversee the administration's ongoing efforts to reform the Montreal Protocol CUE process as soon as possible.

Although American farmers are drastically reducing use of methyl bromide, some parties to the protocol continue to increase their usage and production of methyl bromide. Production agriculture has reduced the use of methyl bromide to the bare minimum, but we have come to our breaking point on further compliance with the phase-out.

Unfortunately, the actions of some in the international community clearly illustrate that the protocol is no longer about ozone protection. Rather, rules are being changed to suit the political agendas and advantages of other countries—agendas that have nothing to do with environmental treaties and everything to do with putting American farmers and consumers at risk.

I thank you for the opportunity to address the subcommittee today regarding this complex issue and again voice our concerns over the seriously flawed international process governing access to legitimate use of methyl bromide for American agriculture.

Mr. HALL. Thank you very much.

Dr. Mueller.

STATEMENT OF DAVID MUELLER

Mr. MUELLER. My name is David Mueller. I am an entomologist and an owner of a small fumigation company in Westfield, Indiana. I am also the son of a flour miller who taught me how to fumigate flour mills 30 years ago, so I am personally very much aware of the needs and issues of the flour millers and the food processors.

At Fumigation Service & Supply, we have used methyl bromide for many years, however, we have developed and adopted several alternatives to methyl bromide that are now used in commercial practice in feed mills, flour mills, pet food plants, and many other food processing facilities.

In recent years, we have replaced over 100 tons of methyl bromide in more than 100 structures in the United States and Canada. Most of the work that we do, Mr. Chairman, is in structures and not soil. Most of those alternatives were carried out in flour mills and cereal processing companies. These alternatives are technically and economically feasible for our industry, and full details are provided in my written testimony.

At Fumigation Service & Supply in Indiana, we still use methyl bromide in some of our operations, but we are on line to phaseout methyl bromide on December 31, 2004.

We offer training programs, workshops on alternatives not only to our customers, but to our competitors.

Mr. Chairman, I am concerned about the excessive amounts of critical use exemptions and who will control them. Will my competitors have whole groups of critical use exemptions to use and to pass out at their favor? Here we are 6 months away from the time when these critical use exemptions will be used, and we don't have a plan on who is going to use them and how many will be used in our industry.

More than 1 million pounds of methyl bromide critical use exemptions could be available next year for fumigating flour mills and food processing plants in the U.S. I believe this is excessive. There are, indeed, effective economical and widely available alternatives in the U.S. for this 1 million pounds, or 483 metric tons of methyl bromide.

Our company has reduced its use of methyl bromide considerably by using alternatives in real-life field applications. We are ready for the scheduled December 31 phaseout with proven techniques like heat treatment, carbon dioxide fumigations, better use of phosphine fumigants, and a newly EPA registered fumigant called sulfuryl fluoride. Forty-seven States have approved sulfuryl fluoride for use in flour mills in the United States. With these proven alternatives, I am confident that next year we can replace all of the applications of post-harvest use of methyl bromide. My company, this year, has replaced 24,000 pounds of methyl bromide since April, with the newly registered methyl bromide alternative, sulfuryl fluoride.

I am here to report to you that replacements are available for post-harvest applications of methyl bromide. I would suggest that the U.S. consider adjusting its current critical use exemptions requested for mills and processing, in light of these proven options.

Another area that I am very concerned about is stockpiling. You can call it what you want, but I call it stockpiling. Stockpiling is a type of legal smuggling. I believe that methyl bromide stockpiles are higher than the 5 percent currently estimated in 2005 discussions. I believe that stocks should be investigated and quantified by an independent organization. It is important to find out the true situation before any decisions are made about additional manufacture and imports of methyl bromide in 2005.

If you think about it, these stockpiles that are going into warehouses, that are going into tanker cars, could be used not just for the next couple years, but for 20 years from now, legally, throughout the country.

Mr. Chairman, I continue to hear over and over again that developing countries like Mexico are providing an uneven playing field against American agriculture. I have not found that to be true. During the last 10 years, I have had the privilege to work with United Nations and the World Bank as a fumigation expert in developing countries. I have worked on three continents. I have worked with countries like Vietnam, Malaysia, Jamaica, Ivory Coast, Zimbabwe, Mexico, Mauritius, Philippines, Turkey, and most recently Thailand, on phaseout and demonstration projects for post-harvest applications.

Two weeks ago, I was working in Thailand, in Bangkok, with the Department of Agriculture there, and the World Bank, to develop a complete phaseout strategy, including soil, for 400 tons of methyl bromide in this Article 5 country. This country and its stakeholders are supportive of the Montreal Protocol because the phaseout path, the pathway for phaseout in developing countries, was made by CFCs and some of the other programs before methyl bromide came along. My experience is that developing countries are very serious in their efforts to phaseout methyl bromide. Since 1998, they have reduced their methyl bromide usage by 37 percent. The quicker we work with developing countries like Thailand and Mexico to find alternatives, the more it will help the American fumigators and the American farmers.

As an American, I always get one question when I go to these developing countries. The question is, "Why does America need so many critical use exemptions?"

In conclusion, Mr. Chairman, I would like to raise an important question. Why should companies that have met the challenge of developing and adopting methyl bromide alternatives be punished by these excessive critical use exemptions and an uncontrolled stockpile?

My company, and others, have invested our time, our effort, and our research into alternatives. I calculate that our company has invested over $250,000 developing new ways to fumigate without methyl bromide. This $250,000 could have been used for other needs to run a small business.

We have acted responsibly and taken prompt action to adopt alternatives. I therefore ask why should the "can't do' companies with the "wait and see" strategy receive favored treatment with these excessive critical use exemptions? Why would Congress want to penalize companies such as mine that have acted responsibly? We have all had 10 years' notice to this issue.

Finally, Mr. Chairman, if the United States now grants unjustified, excessive methyl bromide critical use exemptions to companies that did not bother to act responsibly, this action will be exceedingly unfair to companies that acted responsibly by adopting alternatives. Thank you.

[The prepared statement of David Mueller follows:]

PREPARED STATEMENT OF DAVID MUELLER, FUMIGATION SERVICE AND SUPPLY INC.

My name is David Mueller. I am a Board Certified Entomologist and owner of a family fumigation company in Westfield, Indiana. I am also the son of a flour miller who taught me how to fumigate over 30 years ago, so I am personally very aware of the needs and issues facing millers. At Fumigation Service & Supply, Inc. we have used methyl bromide (MB) for many years. However, we have developed and adopted several alternatives to MB that are now used in commercial practice—for fumigating flour mills, rice mills, pet food plants, and other food processing structures. In recent years we have replaced over 100 tons of MB in more than 100 structures in the United States and Canada. Most of those alternative fumigations were carried out in flour mills and cereal processing companies. These alternatives are technically and economically feasible for our industry—full details are provided in my written testimony.

We still use MB in some operations—when customers request it. But we also have alternatives available for all our MB fumigations, if customers are willing to use them.

Over 1 millions pounds of methyl bromide Critical Use Exemptions (CUE) could be available next year for fumigating flour mills and food processing plants in the US. I believe this is excessive. There are indeed effective, economical, and widely available alternatives available in the US for these one million pounds (483 MT) of MB.

Our company has reduced its use of MB considerably by using alternatives in "real-life" field applications. We are ready for the scheduled December 31, 2004 phase out date with proven alternatives like heat treatments, carbon dioxide fumigations, better use of phosphine fumigants, and a newly EPA registered fumigant called sulfuryl fluoride. With these proven alternatives, our company is confident that we can replace *all* post harvest uses next year.

My company has replaced 24,000 lbs. of MB since April with the newly registered MB alternative sulfuryl fluoride. I am here to report to you that replacements are available for post harvest applications of MB.

Stockpiling is a type of "legal smuggling." Stockpiling should be carefully investigated by EPA and the exact amount of gas should be deducted from the critical use exemption totals each year. In the fumigation sector it is normal to have stockpiles that are only a small fraction of the total annual turnover. These stockpiles could be used 20 years from now.

I believe that the MB stockpiles are much higher than the 5% currently estimated in the 2005 discussions. I believe that the stocks should be investigated and quantified by an independent organization. It is important to find out the true situation

before any decisions are made about additional manufacture and imports of MB for 2005.

Mr. Chairman, I continue to hear over and over again that developing countries like Mexico are providing an uneven playing field against America's agriculture. I have not found that to be true. The quicker we work with developing countries like Mexico to find alternatives the more it will help our American fumigators and farmers.

During the last ten years I have had the privilege to work with the United Nations (UNIDO, UNDP, UNEP) and The World Bank as a "Fumigation Expert" in developing countries. I have written MB demonstration and phase out programs for Vietnam, Malaysia, Jamaica, Ivory Coast, Zimbabwe, Mauritius, Philippines, Turkey, and most recently Thailand.

Earlier this month I worked in Thailand with their Department of Agriculture and The World Bank to develop a complete phase out strategy for 400 tons of MB in this Article 5 country. Most of the MB used in Thailand is used to fumigate rice. Thailand is the largest exporter of rice in the world. This country and its stakeholders are supportive of the Montreal Protocol and the need to eliminate this serious ozone depleting substance as they did previously with their CFC phase out projects and previous MB demonstration projects. My experience is that developing countries are very serious in their efforts to phase out MB—since 1998 they have reduced their MB usage by 37%.

As an American, I always get one question when I am visiting developing countries: "*Why does your country need so many exemptions?*"

For structures like mills and food processing facilities the main economic issue is downtime—the length of time for which an operation has to close down for fumigation. But our customers' experience of alternatives clearly shows that the downtime is similar for MB. In fact, the downtime of these alternatives is sometimes shorter. Last month I was fumigating a large flour mill in Indiana with sulfuryl fluoride that took 10% less time to fumigate than MB. This is valuable time for the millers and the maintenance workers to get back in and get the mill running.

In conclusion, Mr Chairman, I would like to raise an important question: Why should companies that have met the challenge of developing and adopting MB alternatives be punished by these excessive critical use exemptions?

My company—and others—have invested our time, effort, and research into alternatives. Since first hearing about MB being a serious ozone depleting substance right here in Washington D.C. by NASA's Dr. Robert Watson ten years ago, I calculate that our company has invested over $250,000 dollars developing new ways to fumigate without MB. This $250,000 could have been used for other needs to run a small business. We have acted responsibly and taken prompt action to adopt alternatives. I therefore ask why should the "Can't Do" companies with the "wait and see" strategy receive favored treatment with these excessive CUEs? Why would Congress want to penalize companies, such as mine, that have acted responsibly? We have all had 10 years notice on this issue—we all have had plenty of time to adopt alternatives by now.

Finally, Mr.Chairman: If the US government now grants unjustified, excessive MB critical use exemptions to companies that did not bother to act responsibly, this action will be *exceedingly unfair* to companies that acted responsibly by adopting alternatives.

ADDITIONAL INFORMATION IN WRITTEN TESTIMONY

How Do We Phase Out Methyl Bromide?

"Man has done something to damage the ozone layer over the earth and man can do something to correct this problem." (Dr. Robert Watson, NASA)

Recently, the ozone hole over the southern hemisphere was 72 times larger than Texas and 15 times larger than the United States. The intense sunshine we are feeling outside now in Washington D.C. is much more intense in places like Argentina with a burn time of 30 minutes or Melbourne with a burn time of 60 minutes. This is a planet-wide problem and the United States is the largest dumper of ozone depleting substances in and throughout the world, while the U.S. feels little effect so far.

If one observes NASA's ozone maps from the TOMS satellites, one can quickly see that ozone depletion remains a real problem (http://toms.gsfc.nasa.gov/eptoms/dataqual/ozone.html). The first step in correcting the problem is to develop a "*can do*" attitude and move forward using skills and educational knowledge to replace methyl bromide. MB users can copy others who have already eliminated MB successfully, by transferring and adopting alternatives that are used with good effect by similar companies. While MB is a useful agriculture and post harvest biocide but

it harms the protective layer that circles the earth. It also increases prostate cancer in MB applicators according to the National Cancer Institute (American Journal of Epidemiology, 2003, 157(9); National Cancer Institute Division of Cancer Epidemiology and Genetics: http://ens-news.com/ens/may 2003/2--3-05-02-02.asp).

To allow Critical Use Exemptions and uncontrolled stockpiling will not cure the problem. This retards progress, defeats efforts of developing countries, and damages the image of the United States in the rest of the world.

Meeting the Challenge

In 1991 our country was charged with a responsibility to protect our ozone layer while we also protect our food supply. Some have stepped up to the challenge with research and development of alternatives. Others choose to take no action but hide behind lawyers, associations, and lobbyists. Where is the incentive to protect the environment in this sector? What message does this offer to our international partners and our customers? Why would the US want to support continued use of a known ozone depletor and prostate carcinogen?

Alternatives to Methyl Bromide

I wish to provide a summary of some of the proven Methyl Bromide alternatives:

Structural Fumigations

a) Heat Treatments (140° F for 16-24 hours, combined with IPM), *Used by US Companies such as:* General Mills, Quaker Oats, Nestle Purina, Pillsbury, Lauhoff, various milling companies. Estimated 10% of the milling and food processing industry uses heat to disinfest structures.

b) Combination Fumigation Method (Heat, CO_2, Phosphine for 24-36 hrs), Cost is similar to MB; $18.00/ 1000 cubic feet vs. $20.00 for MB.

73 alternative fumigations performed by July 2004 (US, Canada, Italy, Denmark, Germany). An estimated 100 tons of MB has been replaced with the Combination Fumigation Method.

c) Sulfuryl Fluoride, ProFume™. Registered by the US EPA1/2004, registered in 47 states in the US by July 2004. 24-48 hours exposure, cost is similar to MB.

US Companies: ProFume has the ability to replace methyl bromide on most flour mills and structure fumigations in the US that have applied for over 1,000,000 lbs. of MB for CUEs.

d) IPM, integrated pest management. After a structure has been fumigated and the pest population is lowered to near zero. IPM works well for the post harvest industries. The goal is to reduce or eliminate the need for fumigations by denying pests harborage and food.

Some US companies have not fumigated with MB in over 10 years. This committee needs to ask how they did it. Many mills and food processing companies in the US and other countries produce food to very high quality standards, by using technically and economically viable MB alternatives.

Flour Mill Case Study

As one illustration, here is a case study on MB phase out in a large flour mill in Indiana. Four years ago, this flour mill was fumigated three times per year with MB. Understanding the challenge of MB phase out and investigating alternatives for MB, they adopted alternatives. They achieve a better fumigation of their inbound wheat with cylinderized phosphine (ECO2FUME). The management has improved its integrated pest management program with improved hygiene throughout the mill. This step helped the mill reduce the need for structural fumigations from three MB fumigations per year to once per year. In addition to helping the earth's ozone layer, this pest management program saved four extra days for running the mill each year: a big saving. Sanitation has been improved with better construction designs, also helping to reduce pest problems. Monitoring and inspection is a major part of the program.

In June of 2004 this large flour mill used ProFume gas fumigant for the first time. The fumigation gave excellent results in the same amount of time as one MB fumigation (22 hours). The final step of phasing out MB took a commitment from management and a "can do" attitude by all employees. This flour mill demonstrated that they don't need MB any more.

The total impact will be saving about 6,000 lbs. MB per year. [- is 6,000 lb for 1 fumigation or 3 fumigations? Need to state figure for 3 MB fumigations per year] It also provides four extra working days for the mill each year, which has great value to the milling company.

There are 220 flour mills similar to this one in the US, that can also phase out MB. Fumigation Service & Supply, Inc. has performed 18 other Profume fumigations with similar results.

Shutdown time

The real cost for a large manufacturing plant is the cost of being inactive. These alternatives are faster or equal to the shutdown time of MB of 24-48 hours. This is a very important point. The alternatives available now allow companies to get back to work quickly, so they do not lose time/profits. Companies that use MB more than once a year can save valuable shutdown time by switching to alternatives.

Safety

Methyl bromide is a biocide that can burn humans and has been shown to cause prostate cancer in a very large epidemiological study. Most MB fumigations begin inside the building with release by hand by two fumigators with self-contained breathing apparatus. The new alternatives to MB require gas application applied from outside the confined space. The fumigant under pressure inside steel cylinders is directed with tubing to the exact location that needs the fumigant. More fumigant can be added easily with this outdoor method. Whereas, the risk of MB exposure is high when fumigators have to re-enter the building to add more MB. Methyl Bromide is colorless and odorless and will burn skin on contact. I know first hand. I spent eight days in a burns hospital in 1985 from MB exposure to my feet and legs.

Commodity Alternatives

a) Grain—Eco_2Fume™ Phosphine fumigant. This cylinderize phosphine fumigant allows for better and cheaper fumigations on stored grain than MB. (EPA registered in August 2000 as "Fast Track" alternative to MB)

b) Dry Fruit and Tree Nuts: Eco_2Fume™ Phosphine fumigant. This new formulation of phosphine allows for re-dosing phosphine in case of leakage or bad weather. Since the US EPA registered it in August 2000, Eco2Fume has proven to be an excellent commodity fumigant. Research is currently underway to improve this formulation to be less expensive than the solid formulation by using 100% phosphine in a cylinder and mixing it with air/CO_2.

c) CPM, Commodity Pest Management is a method of keeping grain and other commodities in favorable conditions to prevent pests from becoming a problem.

U.S. Industries: Popcorn, Seed, Bird food

d) Sulfuryl Fluoride, ProFume Fumigant Gas, Dow AgroSciences LLP has registered this fumigant for use on grain and specialty commodities including dried fruit and tree nuts.

e) Storicide™, This newly registered grain protectant uses Reldan™ and Tempo™ in combination much like malathion used to do. This technique could replace fumigation on wheat and other small grains.

f) Spinosad™, Dow AgroSciences has been researching the use of the proven biological pesticide called *Spinosad* as a grain protectant. Registration is pending on grain. University field research has shown this technique to be effective in replacing fumigants .

g) Diacon II™, This IGR has received exemptions from tolerances for application to food and grain. This allows a registered pesticide to be incorporated in food that is eaten by the consumer. IGRs will play an important part in future IPM programs.

Ships / Barges / Railcars

Empty ship holds: heat, phosphine, sulfuryl fluoride, contact insecticides
Ships/barges: phosphine (in transit)
Railcars: phosphine (in transit)
Trucks: phosphine (static), sulfuryl fluoride (under review) [???]

Tarpaulin Fumigation

Inert Gases: carbon dioxide, nitrogen, argon, ozone (slow killing)
Phosphine: (48-72 hours above 80 F))
Phosphine and heat: (35-40°C): 24-48 hours
Sulfuryl fluoride: (24-36 hours)

Methyl Bromide Alternatives Comparison for Commercial Structure Fumigations

Treatment	Duration (hours)	Estimated costs* US$per 1000 ft.[3]
Methyl Bromide	24-48 hours	$20.00
Heat +CO_2+PH_3	24-48	$18.00
Year round IPM	replacing the need to fumigate	
Fogging + IGRs	2-24	$3.00
ECO_2FUME	48-96	$12.00

Methyl Bromide Alternatives Comparison for Commercial Structure Fumigations—Continued

Treatment	Duration (hours)	Estimated costs* US$per 1000 ft.^{3}
ProFume (sulfuryl fluoride)	24-48	$26.00
Heat treatment	24-48	$20.00-40.00

*including labor and sealing

Mr. HALL. Thank you, sir.

The Chair recognizes Mr. Doniger.

STATEMENT OF DAVID DONIGER

Mr. DONIGER. Thank you very much, Mr. Chairman. I want to continue building on the last speaker, who has injected some facts and data into this discussion. There have been a lot of claims, with few facts and data. Let me talk about the data that has been discussed earlier today, which came from the EPA in a Freedom of Information Act response, through a request NRDC had made.

This data, which is on the consumption of this chemical, and on the use of this chemical, calls into question the exemption asked for for 2005, and the exemption being asked for now in 2006. In short, these data show that the phaseout is working far better than industry or the Government has acknowledged, and that means that farmers, millers, and other users of this chemical need far smaller exemptions than the U.S. Government is now seeking.

Now, I want to emphasize that I am not opposing all exemptions. It is the size and the unnecessary amount that is wrong here.

Now, this data show—and I am going to hold up this chart which is attached to my testimony, it is an EPA chart—it shows that every year in the phaseout process, the production and consumption of this chemical has been below the allowed amount. In 2003, when the limit went down to 30 percent, the consumption was only 25 percent. Mr. Holmstead told you this morning that this is a number that the EPA stands behind as a strong number.

This is 5 percent less than the amount—in 2003, 5 percent less than the amount the U.S. Government asserted was essential 2 years from then. And at the same time, the producers and distributors have accumulated a large stockpile of methyl bromide. And Mr. Holmstead and others took exception to the use of the term "stockpile." I refer to the letter the EPA sent Chairman Barton on February 10—an excerpt of which is also attached to my testimony—which says, "stockpiling has indeed taken place." From that letter, one can estimate how big this stockpile is. It is at least 10,000 tons of methyl bromide. It is at least 22 million pounds. Further evidence of how big it is is this blacked out number in the other page that came from the EPA, it is five columns wide. The smallest number which is five columns wide is 10,000. We don't know how big this number is.

Mr. Holmstead also asserted today that the number was confidential. It should be noted that EPA has never ruled that this number is, in fact, properly confidential. Under the FOIA regulations, EPA does not rule on whether a confidentiality claim is valid until there is a FOIA request for the records that contain the data. And EPA's regulations set out a procedure for deciding whether the claim is valid when a FOIA claim request is made. Our FOIA re-

quest has triggered that process. EPA has never decided whether the aggregate data or the specific data is, in fact, validly confidential under the Freedom of Information Act, the Clean Air Act, and its own regulations. The EPA's response to the FOIA request is overdue but, as I said, from what the EPA told the Congress and what you can infer from the blacked out numbers here, there is a stockpile of at least 10,000 tons or 22 million pounds, which is bigger than the request made for 2005 and bigger than the request made for 2006.

The fact that it was possible to accumulate a stockpile while the production and consumption were actually below the authorized limits tells you something important about use. It tells you that total usage has been below the amount that has been produced over the last 5 to 10 years, and below the amount by such an amount that this huge stockpile has accumulated.

Now, it does appear from the EPA data which you have, that there may have been, for the first time, a drawdown of the stockpile, so that the numbers on this page that Mr. Allen and Ms. Capps have and referred to earlier, indicate that the 25 percent that was produced and imported last year, plus the difference in the size of the inventory from 2002 to 2003, another 5 percent, suggests that the total usage in the United States in 2003, 2 years ahead of the exemption year, was 30 percent. It is very difficult for me to understand why the request for the exemption years is higher than the use in 2003, especially in light of the existence of this enormous stockpile.

So, this leads to important conclusions. For one thing, a lot of the complaining about the Montreal Protocol process is totally off-base. The parties have been asking the questions, and the technical panel has been asking the questions that the growers and the U.S. Government refuse to ask themselves—how much stuff is actually needed—and they have been paring back the numbers a little bit in recognition of the dubiousness of the claims of exemption need.

Now, the EPA is required under the Clean Air Act to hold a rulemaking this year, and in that rulemaking—this is for the 2005 exemption—EPA is required to consider whether in light of the declining use there needs to be so much authorized for 2005, and required to consider in light of the stockpile whether we need to produce the full 30 percent, or even any methyl bromide, next year. And the parties are engaged in the same inquiry for 2006. So, you have this domestic process that's during the rest of this year for 2005, and an international one going on the rest of this year with respect to 2006.

Allow me two quick comments to close. First, on the idea of a multi-year proposal, I am not, on NRDC's behalf, entirely opposed to the idea of a multi-year proposal, not in concept. But the question is, does the proposal start, like the nominations for 2005 and 2006, at levels way above consumption and use in previous years, without a guarantee against this? Any multi-year proposal, just like an annual proposal, has to be a non-starter.

And the second thing is, does the multi-year proposal provide for year-by-year reductions, steep year-by-year reductions, so that we get toward the objective of zero?

In the past, the United States has proposed a multi-year exemption with a trivial slope in it, basically no reduction from year-to-year, and even though it talks in this proposal about having an interim increase, and that makes a multi-year proposal like that a non-starter.

Finally, let me comment on H.R. 3403. This bill would take truly an extraordinary and unilateral step of declaring that all U.S. exemptions, if deemed approved, even if they had been rejected under the Montreal Protocol, and this would place the U.S. in violation of a treaty supported by the last three Presidents, starting with Ronald Reagan, which our country has ratified and legally bound itself to follow. I might add that I checked my memory while sitting here, China is a Party to this Treaty as well, and China has ratified the agreements that pertain to methyl bromide, let me correct that part of the record from earlier.

The bill would put more people at risk of cancer. It would ignore rapid progress that has been made. My last two sentences, sir. It would punish responsible companies. It would force the U.S. to thumb its nose at yet another treaty, at a time when our country needs the broadest international cooperation, and it would expose U.S. businesses to billions of dollars in trade sanctions. I urge you not to move that legislation. Thank you.

[The prepared statement of David Doniger follows:]

PREPARED STATEMENT OF DAVID DONIGER, NATURAL RESOURCES DEFENSE COUNCIL

Mr. Chairman, thank you for the opportunity to testify on the phase-out of methyl bromide, on behalf of the Natural Resources Defense Council (NRDC) and its more than 500,000 members.

There are few more heartening success stories than the global effort to phase out the ozone-damaging chemicals. Every American, and every citizen on this Earth, relies on the ozone layer to block dangerous ultraviolet radiation that causes skin cancer, cataracts, immune disorders and other diseases. The Montreal Protocol—which has enjoyed bipartisan support from three presidents, beginning with Ronald Reagan—is saving literally millions of Americans, and tens of millions of people around the world, from death and disease and preventing billions of dollars in economic damages—including UV-related crop losses.

Yet the ozone shield directly over our heads has been weakened by ozone-depleting chemicals increasing our exposure to dangerous UV radiation. Millions of Americans—including farmers—must work everyday in the sun. Millions more—from school children to seniors—spend hours of their days out of doors. Millions of concerned parents check the UV Index and cover their kids with sunscreen before letting them go out in the sun.

Methyl bromide is the most powerful ozone-depleter still in widespread use. All of other potent ozone-destroying chemicals have been successfully eliminated. Methyl bromide also has been linked to increased prostate cancer risks in a study of 55,000 pesticide applicators, including farmers, nursery workers, and workers in warehouses and grain mills. Phasing out methyl bromide is the single most important thing we can do to hasten repair of the ozone layer, as well as protect those directly exposed. Now is not the time to tamper with the methyl bromide phase-out requirements under Montreal Protocol and the Clean Air Act.

Last week I attended the Montreal Protocol negotiations in Geneva on critical use exemptions for methyl bromide in 2006. NRDC has been an accredited observer at those meetings for nearly 20 years. At the meeting, I called attention to important U.S. government data that NRDC obtained in June under the Freedom of Information Act. I would like to share these data with this Committee today.

These data show that U.S. methyl bromide consumption and use have already been cut well below the critical use exemption levels requested by the U.S. The data call into question the basis of the exemption granted at the Extraordinary Meeting in March for 2005 and the exemption requested this year for 2006.

In short, these data show that the phase-out of methyl bromide is working—far better than industry or government has acknowledged. And that means farmers,

millers, and other users of this chemical need far smaller exemptions than the U.S. government is now seeking.

The good news is that U.S. methyl bromide consumption has declined sharply.

- The data show that U.S. consumption in 2003 was just 25% of the U.S. 1991 baseline level (6,507 metric tonnes or 14.3 million pounds), even though the Montreal Protocol and the Clean Air Act permitted 2003 consumption at 30% of the baseline level. ("Consumption" is defined as national production plus imports, minus exports.)
- U.S. methyl bromide consumption has been well below the applicable limits in each year going back to the start of the phase-out. (See page 2 of the attachment, from the June 18, 2004 FOIA response.)

At the same time, however, U.S. producers and distributors have accumulated a large stockpile of methyl bromide.

- The Subcommittee will recall that in a letter to Chairman Barton dated February 10, 2004, EPA indicated that it had obtained data on methyl bromide stockpiles from a number of companies using its information collection authority under the Clean Air Act. (The letter is reprinted in the record of last year's hearing.) EPA's letter stated that "stockpiling has indeed taken place." Yet the letter provided only "qualitative" information on the amount of the stocks, on the grounds that the entities from which EPA had obtained the data had claimed it to be confidential business information.
- From this letter it was nonetheless possible to deduce that those stocks were larger than the exemptions sought for 2005. Though EPA has not yet disclosed exactly how much, we can be sure that it is *at least* 10,000 metric tonnes (22 million pounds)—at least 40% of the U.S. baseline—and may be much higher. (See page 4 of the attachment, explaining the basis of this estimate.)

It should be noted that EPA had not then, and still has not, ruled upon whether those claims of confidentiality are legally or factually valid. Under EPA's FOIA regulations, the agency typically does not rule upon the validity of confidentiality claims until there is a FOIA request for records containing the pertinent data. EPA's FOIA regulations set out a procedure for making a determination on the validity of such confidentiality claims, which is triggered by the filing of a FOIA request. NRDC has requested this stockpile data from EPA under another Freedom of Information Act request, a response to which is now overdue. We continue to press for disclosure of this data without further delay.

The fact that it has been possible to accumulate a stockpile necessarily means that total usage by growers and other users during the phase-out has been even lower than the U.S. national consumption. In other words, all of the methyl bromide currently held in stocks represents production from previous years that has not yet been used.

A stockpile of at least 10,000 tons is far larger than needed to meet normal inventory needs. Common practice in the chemicals industry is to keep inventories at only a fraction of annual demand. The methyl bromide stockpile greatly exceeds annual demand.

The data obtained in June suggests that in 2003 U.S. users may have drawn upon the stockpile for the first time.

- The data indicate a draw down of the known inventory by some 1167 tonnes (2.6 million pounds) in 2003, bringing total U.S. use to about 30%. (See page 3 of the attachment, from the June 18 FOIA response.)

The most important observation to draw from this data is that the U.S. consumption and use in 2003 are already below the upper limits allowed in the March decision on 2005 exemptions.

- U.S. 2003 consumption was 5%—some 1600 tonnes (3.5 million pounds)—below the upper limit on 2005 consumption set forth in the March decision.
- U.S. 2003 use was 5%—again some 1600 tonnes (3.5 million pounds)—below the upper limit on 2005 critical uses set forth in the March decision.

In press reports, and again in the Geneva meeting, representatives of the U.S. government have responded to this data by suggesting that it may not accurately capture all of usage of methyl bromide in 2003. That would raise some interesting and troubling questions.

- We presume that the consumption data are accurate. Consumption must be accurately tabulated and reported under both U.S. law and the Protocol.
- The only other possibility is that in 2003 farmers and other users drew upon even larger amounts of stockpiled and inventoried methyl bromide—amounts above-and-beyond the stockpile data of which EPA is aware. That would underline the need for far better data collection on this critical question of stockpiles.

These facts lead to important conclusions for both 2005 and 2006.

- The Protocol Parties, including the United States, have twice decided that parties must use available stocks to meet critical use needs before they may allow more methyl bromide production. (See the 1997 critical use criteria decision, Protocol Decision IX/6, and the critical use decision from March 2004, Protocol Decision Ex.I/3. A copy of each of these decisions is attached.)
- For 2005, the March decision of the Parties (Ex.I/3, ¶5) provides for each country with a critical use exemption to take into account up-to-date information on use levels and stockpile availability in its domestic licensing decisions.
- In the U.S., domestic licensing of 2005 production and critical use must be made through a regulation under a rulemaking required under Section 7671c(d)(6) of the Clean Air Act. That regulation has not yet been proposed.
- To comply with the March exemption decision and the Clean Air Act, EPA will have to reduce 2005 critical uses below the 35% ceiling set in the March decision to reflect the progress in reducing use that was already made by 2003. Likewise, EPA will have to reduce 2005 production and consumption below the 30% ceiling set in that decision to reflect the availability of existing stockpiles of methyl bromide.

For 2006, the Protocol Parties will need to do likewise. They will need to decide how much critical use and consumption to permit the U.S. in light of the progress already made in the U.S. and the existence of the very large stockpile. There is every reason to expect further progress in adopting alternatives between 2003 and 2006.

Allow me to comment on the proposal that the U.S. tabled in Geneva to allow multi-year critical use exemptions. It is my understanding that this is, in effect, a proposal for 2007 and beyond—and that the 2006 decision will need to be taken on a single-year basis. In any event, NRDC believes the attractiveness of a multi-year exemption decision depends on two rather central details:

- Does it start (like the U.S. nominations for 2005 and 2006) at a level well above consumption and use in earlier years? Without guarantees against this, the proposal should be viewed as a non-starter.
- And does it provide for steep year-by-year reductions? If it would allow only trivial annual reductions, or even increases in interim years, that is another reason it should be considered a non-starter.

Let me turn to some observations on H.R. 3403, which is pending before this Committee. This bill would take the extraordinary and unilateral step of declaring that all U.S. exemption applications are deemed approved even if they have been rejected under the Montreal Protocol. This would place the U.S. in violation of the Montreal Protocol, a treaty supported by last three Presidents, starting with Ronald Reagan, which our country has ratified and legally bound itself to follow. The bill would put more people at risk of cancer. It would ignore the rapid progress actually being made. It would punish the responsible companies, university researchers, and growers who have invested time and money into developing and adopting safer alternatives. It would force the U.S. to thumb its nose at another important treaty obligation precisely when our country needs the broadest possible international cooperation. And it would expose American businesses to billions of dollars in trade sanctions.

I cannot conclude without a word on an issue I raised last year—the still-pending regulatory proposal to vastly expand the amount of methyl bromide used for quarantine purposes. The U.S. Department of Agriculture (USDA) is nearing promulgation of a regulation that would require treatment of all raw wood packing material imported into or exported from this country. If promulgated, the new rule will lead to a massive and unnecessary increase in the amount of methyl bromide used for quarantine fumigation.

As I reported last year, the rule could result in a massive increase in methyl bromide use—by more than 102,000 tons per year according to a USDA Environmental Impact Statement. That would increase current world use for quarantine purpose by 10 times and triple total world use of methyl bromide for all purposes.

In 1999, USDA publicly committed to study and consider phasing out raw wood packing material and phasing in alternative packing materials instead of ordering huge increases in methyl bromide use. But since then USDA has broken its commitment to consider the option of phasing out raw wood packing. The department's EIS and its proposed rule contain not a word examining this option. One USDA official sought to comfort me by saying that the study of moving to alternative packaging materials "had not been abandoned, only shelved."

If this regulation is issued, it will more than undo all the good that has been done by farmers, millers, and others to reduce methyl bromide use and its threat to the ozone layer. We have signaled USDA that we would cooperate with the agency and industry in a reasonable effort to move to alternative packaging materials, and we

could even accept some use of methyl bromide fumigation of current raw wood packaging as an interim measure. But we have also served notice that we will take legal action, if needed, to block the current proposal and prevent the huge and unnecessary increase in methyl bromide it would cause.

In conclusion, the Montreal Protocol is working. It is beginning to heal the ozone layer. It is protecting the American people. But even with absolute adherence to the phase-out of ozone-depleting chemicals, repairing the damage—closing the holes in the ozone layer—will take many decades. The methyl bromide phase-out process is working successfully—just as it did for CFCs and other chemicals earlier—to stimulate the development and adoption of effective alternatives. We must stick to this effort and complete the phase-out of methyl bromide. In particular, the United States must now acknowledge reality and revise and reduce its exemption requests to conform to its own data on the progress that is being made in eliminating this chemical and its own data on huge existing stocks of this chemical.

Thank you for the opportunity to address these issues.

[Additional material is retained in subcommittee files.]

Mr. HALL. Thank you, Mr. Doniger.

The Chair recognizes Ms. Bogenholm, a true farmer, I am told.

STATEMENT OF VANESSA BOGENHOLM

Ms. BOGENHOLM. Thank you, Mr. Hall, and thank you, committee, for allowing me to testify today. My name is Vanessa Bogenholm. I am an organic strawberry, raspberry and vegetable farmer from California. I also am honored to sit as Chairman of the Board of California Certified Organic Farmers. I represent $1 billion of organic products in the marketplace annually. We are the largest group of farmers growing organically. Our grown every year is 10 to 12 percent, and we have really seen the industry just boom in the last 5 years. One of the papers I put in my testimony shows that boom in the commodities you are hearing discussed today, especially.

The most important thing about this is that 16 years ago when I graduated from college, the first day on the job, my first job was sitting at the methyl bromide alternative research plot, and that plot had 20-foot rows of all of these chemicals mentioned here, every one of them. That was 16 years ago. In 2002, the Strawberry Advisory Commission once again funded all those same materials again, now with 50-foot plots. They had not moved remarkably ahead and still looking at the same materials again and again.

I left working for extension and became a conventional farmer. My last year of farming conventionally, I did not use methyl bromide, I used Telone. I had the highest production in my commodity. Many strawberries are sold under big names—I won't mention the name—I was the highest producer not using methyl bromide. I have been just straight organically farming for 6 years.

One of the things I always hear is people trying to look for this magic bullet. There is not one pill you can take to make you not fat anymore. There is not one pill you can take to make you not use methyl bromide and everything is perfect.

What we do as organic farmers is much different. Very integrated approach. It is a very much a bunch of different steps to not have soil disease problems or insect problems in your soil that methyl bromide gets rid of. I agree. Methyl bromide is much easier to use. You call a fumigation company, they come and fumigate your field.

Instead, what we have to do is rotate crops. We use what we call "cover crops," which means putting different material into the soil

to get rid of disease. We use large amounts of compost in order to control soil diseases.

Before I can be anything, I am a businessperson, and I have to make payroll every Friday and, believe me, you see the large growth in organics for one reason only—people are making money at it because of the consumer demands, and the consumer knowing more what happens to farmworkers when they use methyl bromide is incredibly important.

When I was a conventional farmer, I was present during every one of the fumigations. You cannot wear plastic gloves during a fumigation when you are shoveling soil because the gas will get underneath your gloves and burn your hands. How dare an employer have an employee in that kind of situation. You get headaches every time.

In California, we have the most strict usage recommendations for these things. You have to move out of your house, if your house is within 500 feet of a methyl bromide fumigation, for that farmer to use it. We cannot use it around schools. A school system around me, a farm is near the school, a grower asks the school when they can fumigate. They fumigated over July 4 weekend so that they didn't have anybody around. And their concern was that it was okay because only the migrant Head Start kids were going to be there the following week, and the Superintendent of Schools also knew that I would actually stop that fumigation. In order for that grower to fumigate his field, which is actually about, I would say, 130 feet from my field, I would not have been able to harvest my own crop on my organic farm, so he could fumigate his field.

I truly think that an employer needs to look at other options. In the strawberry industry, many, many farmers refuse to look at other options for one reason only. And you saw somebody earlier give a big stack of paperwork and talk about 3,000 pages to get a critical use exemption. I look at that and think of all those hours work and all that money spent on a critical use exemption, that could have gone to other research alternatives, and that is, I think, the main problem we see here. When companies know you are going to get an exemption, why would you look for an alternative? That is really what I think we need to do. We need to start pushing to get—I am not saying an immediate phaseout tomorrow—but really make sure that commodity groups are using less and less by the commodity.

I really thank the chairman for allowing me to speak.

[The prepared statement of Vanessa Bogenholm follows:]

PREPARED STATEMENT OF VANESSA BOBENHOLM, OWNER, VB FARMS AND CHAIR, CALIFORNIA CERTIFIED ORGANIC FARMERS

To the Committee on Energy and Commerce U.S. House of Representatives: I wish to thank the committee for allowing me to speak on the use and hopefully the eventual phase out of Methyl Bromide in United States agriculture. I am Vanessa Bogenholm, an organic farmer of Strawberries, Raspberries and Vegetables shipping my products all over the United States including Hawaii and Canada.

I also am honored to represent California Certified Organic Farmers as the Chairman of the Board representing over 1300 organic producers and over $1 Billion dollars of organic products in the market place annually.

Main points to be made in this testimony:

- Organic farming techniques are viable alternative to the traditional use of Methyl Bromide use for crops such as strawberries, raspberries and grapes.

- Methyl Bromide use is dangerous to farm workers and other surrounding land uses such as rural residential areas and schools.
- Commodity Groups using Methyl Bromide need to be seriously looking at viable alternatives to Methyl Bromide by doing *full field scale trials* on other production methods or materials and not just the 100 foot trials that have been done for over 16 years.
- Many commodity groups have been spending millions of dollars to get their critical use exemptions at the Montreal Protocol and meetings such as this (preparing reports, travelling and lobbying politicians) instead of putting that money into Methyl Bromide alternative research. These commodity groups need to have long term goals of no longer relying on Methyl Bromide for the growing of their crops.
- Individual farmers need to be encouraged to look at other farming methods besides Methyl Bromide and not just rely on their commodity groups or state extension agents to do the experimentation for them.
- *The financial concerns of individual farmers can not be considered more important than the environmental concerns or the health of human beings.*

Organic farming systems are based on ecologically based practices such as using composting and soybean meals for fertilization, crop rotations that promote biodiversity in planting schemes, and non-toxic pesticides such as vegetable oils for insect and disease control. Organic farming has been the fastest growing area of agriculture in the United States producing the same agricultural commodities that are produced through conventional agriculture. The growth rate of organic agriculture has been between 10-12% annually for the past 5 years with fresh fruits and vegetables comprising the largest area of growth (USDA Agricultural Information Bulletin 777).

When I graduated college with a Bachelor's of Science degree in Agricultural Biology, I started work with the Agricultural Extension Service in Watsonville CA as an agricultural researcher. My first day on the job 16 years ago was setting up a Methyl Bromide alternatives experiment for strawberry production. The other major experiment I was working on at the time was looking at the viability of organic farming for strawberry production by comparing a farmer with both organic and conventional strawberries in the Santa Cruz area of California.

I left that position after a couple of years and have been a strawberry farmer in California for 14 years. I started farming conventionally, in 1997 I began to farm a small portion of my operation organically, and by 1999 switched the entire operation over to organic production.

In the beginning of my farm business, I used Methyl Bromide. I was present during each fumigation and worked with my employees shoveling the soil at the ends of the field over the plastic tarps used to keep the Methyl Bromide gas in the soil for as long as possible. One of the first instructions I received from the fumigation company was that I could not wear the plastic gloves I wore for most of my work on the farm during the Methyl Bromide fumigation. This was because if the gas got under my plastic gloves it would be trapped inside the glove and burn my hands. Also, no matter how perfect the applicator on the tractor would try to be, some gas would always be released at the end of his fumigation pass and all of us in the field would have our eyes tearing from the Chloropicrin used with the Methyl Bromide. Headaches were always common with my employees and myself who had worked as shovelers on fumigation sites. I personally feel it is irresponsible for an employer to expect his employees to work around these types of materials that are known to cause illnesses. Methyl Bromide can cause neurological damage, reproductive harm, can damage lungs and kidneys and possibly cause cancer. (PANNA attachment #3)

In the past few years, new larger buffer areas have been imposed on growers wanting to use Methyl Bromide in their fields. This means that a grower may ask a surrounding house or other farm to not be present on their own property during the time he was fumigating his adjacent field with Methyl Bromide. How safe can the material be if we are asking people who live within 500 ft. of a fumigation job to go stay in a hotel for 48 hours after the fumigation? Does a farmer have the right to put people who may just be passing by his field at danger because he wants to use Methyl Bromide?

I and all of my organically farming associates, use many different methods to avoid the disease and pest problems that Methyl Bromide eliminates from soil. We rotate crops, cover crop and use compost to suppress plant diseases in the soil. Good healthy soil structure is our best defense against disease pressure. We use plastic mulching, flaming machines, tractor work and farm labor to reduce weed pressure. Solarization, the use of plastic tarps to heat the soil up and kill diseases in the soil is used in many areas. As farmers work more with these types of alternatives, they have learned to farm better and can achieve yields similar to conventional produc-

tion methods. As an example, in 1988, a farmer using conventional farming methods for strawberry production obtained 5000 crates per acre as compared to an organic farmer who obtained around 2000 crates per acre. As growers have become better at farming strawberries organically, many growers obtain yields only 10-15% less then conventional farmers (California Extension Organic Strawberries Cost of Production Studies, 2003).

Farming without Methyl Bromide can take more time for the farmer because of the extra tractor work needed and other land preparation. The same parcel of land can not be farmed continuously also with the same crop which can be difficult for growers who have never grown other crops.

Sixteen years ago, I was researching Methyl Bromide alternatives. California Agricultural Extension knew then that certain materials held promise for strawberry production and others were not viable for many reasons. In 2002, the Strawberry Advisory Commission was still funding small 100-200 ft research plots with many of the same materials. How is this going to teach and encourage strawberry farmers to look at and learn to use alternatives? Research trials of ° acre or more on producing farms need to be done by many farmers so they can begin to move away from Methyl Bromide. When I asked a large 300 acre conventional grower how many alternatives he had tried in 2003 and before, he stated none. This same grower had been a board member of the Strawberry Advisory Commission and he stated "we are going to get an exemption until 2005 at least so I won't try one until I have to. I will stick with what I know works." Because the Strawberry Advisory Commission has been so public on working on the Critical Use Exemptions many other growers have this same belief.

Before a grower can be anything—organic or conventional—he has to be a businessperson. If I cannot make the payroll on Friday, it does not matter how I farm, I will not stay in business. By looking at the records of growth in California Certified Organic Farmers we can see that growth in strawberries alone has been 155% over the last 5 years. Obviously some growers are figuring out they can make money without Methyl Bromide.

Thank you again for your time. I have included some attachments that will give you some other back up that farming without Methyl Bromide is possible. Please feel free to contact me with any questions you may have.

[Additional material submitted are retained in subcommittee files.]

Mr. HALL. Thank you.

Mr. Wolf.

STATEMENT OF JAMES WOLF

Mr. WOLF. Thank you. My name is James Wolf. I am Vice President of Trane, and Chairman of the company's Environmental Policy Council. Trane is a business of American Standard Companies. We manufacture heating and air-conditioning equipment for small and large buildings and are the world's largest manufacturer of building chiller systems.

I am pleased to tell you that we are also the leader in the manufacture of highly energy-efficient building chillers. Also, at our manufacturing facility in Tyler, Texas, we manufacture air conditioning and heat pump products for the residential market that offer consumers industry leading system efficiencies.

Trane has been active in the domestic and international efforts to protect the earth's ozone layer since 1980. We have participated in virtually all the meetings of the Parties, as well as in domestic efforts to implement this Treaty under the provisions of the Clean Air Act.

I am not here today because we have a specific business interest in the use of methyl bromide or its substitutes. I am here because we have a strong interest in ensuring that the Montreal Protocol remains an effective vehicle for global ozone protection. The Protocol has been recognized as perhaps the most successful international environment treaty ever negotiated. In our view, it has

achieved this recognition because the treaty framework has been successful at encouraging wide scale cooperation among industry, government and environmental representatives in order to achieve well-defined environmental goals in a cost-effective manner.

The Protocol was one of the first policy instruments in the environmental arena to specifically take account of economic issues as part of its implementation process. The industry approach to addressing this effort has been to manage the issue rather than simply react to it. As such, we have invested countless man-hours in participation in the scientific and technology assessment processes that have been so integral to the Treaty's implementation.

Industry around the world has invested billions of dollars in developing and introducing ozone-friendly technologies. In our company, we took advantage of the technology shift away from CFC-based products, to develop better technology We have improved our chillers compared to the CFC chillers manufactured in the 1980's, to use at least 35 percent less energy. Also, we have reduced the loss of refrigerant from these chillers from up to 30 percent to less than half a percent a year.

While industries have invested billions of dollars over the last 17 years in replacing ozone-depleting compounds, the investment has been small and the disruption less than would have otherwise occurred had we not addressed the issue in a coordinated systematic way.

As a leading American manufacturer, our message to you today is that we, like many other American industry participants, have a substantial human and financial investment in the Montreal Protocol and its processes. Our overall impression is that the Protocol process has worked and has worked far better than any of us had expected when it was signed in 1987. That does not mean that the process is perfect, or that we do not have continued policy and business challenges ahead of us. We want to see the record of success continue.

We also want the Protocol to continue because noncompliance status, or U.S. withdrawal from the Protocol, could result in trade impacts of billions of dollars to U.S. industries. I am not a legal expert, however, my understanding is that noncompliance with the Montreal Protocol, or withdrawal from the Montreal Protocol, could adversely affect the United States' ability to trade with 187 countries that are parties to the Treaty, and cause serious financial losses to U.S. companies as well as the loss of U.S. jobs.

It is impossible for us to say for certain that such an outcome would come about because the Treaty has never been confronted with such a serious breach. We would not want to risk such an outcome, nevertheless.

It has been estimated that current trade in HCFCs and HCFC reliant technology is around $10 billion a year. This trade could be jeopardized if U.S. status or participation in the Montreal Protocol becomes an issue.

The Protocol has worked well over the last 17 years. It has done so because it has made decisions based on scientific and technical facts, and with a continued acknowledgement of its goal of balancing key environmental and economic issues.

As part of the final chapters of this agreement, there will be continued discussion of the need for exemptions to the phaseout. These exemptions are a critical part of the Treaty's effort to balance economic and environmental interests. As with some other uses, I suspect that methyl bromide critical use exemptions will be necessary for some time to come. From our perspective, I can tell you that the CUE process appears to have worked well in most other instances over the last decade.

We share the concern of the methyl bromide users, and have been in their place. We are confident that diligent effort on their part and on the part of the policymakers will produce policy decisions that are fair and achievable.

To summarize, our experience has been that the Montreal Protocol process has worked better than could have been expected since its inception in 1987, the process can and will take into consideration key industry supplied data in order to arrive at credible decisions on phaseout schedules and critical use exemptions. It is incumbent on the affected industries to invest in developing a credible data base and in educating the parties, including those outside the United States, on the importance of their use category, and that the U.S. must do everything it can to remain a party in compliance with the Treaty so as to protect the billions of dollars of investments already made by U.S. companies in ozone protecting technologies and not jeopardize billions of dollars in trade value of the U.S. economy.

Thank you very much.

[The prepared statement of James Wolf follows:]

PREPARED STATEMENT OF JAMES WOLF, VICE PRESIDENT, TRANE

Good morning. My name is James Wolf; I am a Vice President of Trane and Chairman of the company's Environmental Policy Council. Trane is a business of American Standard Companies. We manufacture heating and air-conditioning equipment for small and large buildings and are the world's largest manufacturer of building chiller systems. I am pleased to tell you that we are also the leader in the manufacture of highly energy efficient building chillers that have been installed in the EPA headquarters building, the White House/Old Executive Office Building, the IRS Building, the Federal Reserve Board Building, the Department of Interior Building, the Washington Monument, and the Washington, D.C. convention center to name a few. The chiller system operating in the convention center is the world's most efficient system operating at 0.45 kW/ton, a minimum of 15% better than all other systems available and this is a 35% improvement over the CFC systems offered in the 1980's. Also, at our manufacturing facility in Tyler, Texas we manufacture air conditioning and heat pump products for the residential market that offer consumers industry-leading system efficiencies—up to 19.5 SEER, 50% less energy consuming than equipment meeting the Federal standard of 13 SEER.

Trane has been active in the domestic and international efforts to protect the earth's ozone layer since 1980. As an air conditioning industry leader, we have been involved in all of the policy negotiations leading to the signing of the Montreal Protocol on Substances that Deplete the Ozone Layer in 1987, and we have participated in virtually all of the subsequent meetings of the Parties, as well as in domestic efforts to implement this treaty under the provisions of the Clean Air Act. Further, Trane is a member of the Alliance for Responsible Atmospheric Policy (ARAP), the industry coalition organized since 1980, which has been the lead industry coalition involved with the global ozone protection effort. I served for four years as chairman of the Alliance; I am currently a board member of this organization.

I am not here today because we have a specific business interest in the use of methyl bromide or its substitutes. I am here because we have a strong interest in ensuring that the Montreal Protocol remains an effective vehicle for global ozone protection. The Protocol has been recognized as perhaps the most successful international environment treaty ever negotiated. In our view, it has achieved this rec-

ognition because the treaty framework has been successful at encouraging wide scale cooperation among industry, government and environmental representatives in order to achieve well-defined environmental goals in a cost-effective manner.

In 1986, American industry, under the leadership of the Alliance, called for the negotiation of an international treaty to deal with ozone protection efforts. This was seen at the time as the best way to address a global environmental issue. Many of the industries then relying on ozone destroying compounds, including automotive, air conditioning and refrigeration, electronics, and medical supplies, were key components of U.S. global competitiveness. Threatened unilateral regulatory measures at that time would have been damaging to US industries and would not have been environmentally effective towards protection of the ozone layer

The Protocol was one of the first policy instruments in the environmental arena to specifically take account of economic issues as part of its implementation scheme. The industry approach to addressing this effort has been to "manage" the issue rather than simply react to it. As such, we have invested countless man-hours in participation in the scientific and technology assessment processes that have been so integral to the treaty's implementation. We have also invested thousands of hours in educating treaty experts and diplomats in the United States and from governments around the world to ensure that they are well versed in the technical issues related to reducing reliance on ozone depleting compounds as they are making, and continue to make, important policy decisions.

Industry around the world has invested billions of dollars in developing and introducing ozone friendly technologies. In doing so, we have succeeded in eliminating the use of the predominant ozone depleting compounds, known as chlorofluorocarbons or CFCs, with a few notable exceptions. While achieving the elimination of CFC compounds, in most instances we have also been able to improve the quality and performance of the products replacing the CFC reliant products.

As an example, in our company, we took advantage of the technology shift away from CFC based products to develop better technology. We have improved our chillers, compared to the CFC chillers manufactured in the 1980s, to use at least 35% less energy.

Also, since the inception of the Montreal Protocol, and our understanding of the science, we have taken the industry from what was once a highly emissive application, to that where the chemical can practically remain in the machine for the entire operating life, while still significantly improving greenhouse gas emissions with superior energy efficiency. For example we have reduced the loss of refrigerant from 20-30% per year to less than 0.5% per year. In fact, we offer the purchasers of Trane chillers a leak tight guarantee at no cost.

The industry decision to support an international agreement has proven to be a good one. The treaty has eliminated the "free-riders syndrome", where competing industries in other countries might not have had the same requirements, and has allowed for a collegial effort at the domestic level to meet our ozone protection commitments. While industries have invested billions of dollars over the last 17 years in replacing ozone depleting compounds, the investment has been smaller and the disruption less than would have otherwise occurred had we not addressed the issue in a coordinated systematic way. According to a recent study prepared by the US EPA and reviewed by the Office of management and Budget, the ozone protection regulations in the United States have one of the best cost-benefit ratios of any Clean Air Act regulatory program in the history of the Act.

The cost savings to industry and to the consumer have ultimately benefited the economy. Furthermore, the industries reliant on the former ozone depleting compounds have been able to continue in business and meet the strong demand for products that are safe, healthy, energy efficient, and non-flammable so that these technologies continue to offer substantial benefits to our society overall.

As a leading American manufacturer, our message to you today is that we, like many other American industry participants, have a substantial human and financial investment in the Montreal Protocol and its processes. Our overall impression is that the Protocol process has worked and has worked far better than any of us had expected when it was signed in 1987. That does not mean that the process is perfect or that we do not have continued policy and business challenges ahead of us. It is a unique international institution that has worked because of strong American influence from all corners—industry, government, environment, and academia. We want to see that record of success continue.

From a more parochial perspective, we also want the Protocol to continue because non-compliance status or U.S. withdrawal from the Protocol could result in trade impacts of billions of dollars to U.S. industries. I am not a legal expert, however, my understanding is that non-compliance with the Montreal Protocol, or withdrawal from the Montreal Protocol, could adversely affect the United States' ability to trade

with the 187 countries that are parties to the treaty and cause serious financial losses to American companies as well as the loss of American jobs. It is impossible for us to say for certain that such an outcome would come about because the treaty has never been confronted with such a serious breach. We would not want to risk such an outcome nonetheless.

As an example, the encouragement of the use of HCFC technologies in transition away from the use of CFCs has been critical to assuring the treaty's cost-effective accomplishments. These HCFC technologies are currently employed in a wide array of uses including in air-conditioning and foam insulation. The Alliance has estimated that current trade in HCFCs and HCFC reliant technology is around $10 billion per year. This trade could be jeopardized if U.S. status or participation in the Montreal Protocol becomes an issue.

The Protocol has worked well over the last 17 years. It has done so because it has made decisions based on scientific and technical facts available when the decision was being made, and with a continued acknowledgement of its goal of balancing key environmental and economic issues. It is important not to confuse hard bargaining with an incorrect approach. History has shown that the bargaining has always been a challenge. A challenge that has been met because of the credibility brought to the process by frank discussions of scientific, technical, and economic issues, as well as key political considerations. We would hope that the Montreal Protocol will follow the latest science and understanding of the current technology as future decisions are made, rather than relying on the earlier science and state of the technology available when the Protocol was first developed.

Because of the success of the Protocol, decades have been shaved off of the projected date of recovery of the earth's ozone layer. But the treaty's ultimate success depends on the completion of its remaining objectives, including the developing country phaseout of ozone depleting compounds, and the ultimate elimination of other compounds such as methyl bromide. U.S. influence is a desired and needed component to effectively achieve these objectives. This requires the U.S. to remain an active and effective party to this agreement.

As part of the final chapters of this agreement, there will be continued discussion of the need for exceptions to the phaseout. These exceptions are a critical part of the treaty's effort to balance economic and environmental interests. As with some other uses, I suspect that methyl bromide critical use exceptions will be necessary for some time to come. From our perspective, I can tell you that the CUE process appears to have worked well in most other instances that we have witnessed over the last decade. This process has worked because of the credibility brought by industry and government discussions of facts and by the commitment of all interests towards a balanced approach. It would be our expectation that the CUE process for methyl bromide would be no exception to this approach.

The transition process away from ozone depleting compounds has been very similar across the wide variety of affected industries. As in the agricultural arena, we have large corporate producers and users of the compounds impacted by this treaty. In many instances, we also have thousands of small businesses whose livelihood is dependent on the availability of these compounds or their identified substitutes. A critical component of the Protocol process, which has been incorporated into US domestic implementation laws, has been the identification of suitable substitutes and reasonable expectations for market penetration of these new compounds or technologies.

This transition planning has been a significant challenge. It has required extensive work in planning, education, and familiarization of thousands of small businesses with technologies being developed by large corporate suppliers and manufacturers. Our own company had to do this with our network of dealers, suppliers, and contractors. And we succeeded.

The transitions were usually accompanied by a firm but fair reduction schedule that recognized the needs of these user groups and appreciated the value of the investment being made in the new technologies. Our experience has been that the process can and will work. It does require a great deal of hard work in developing and delivering credible information to policymakers, and in implementing the substitute technologies once identified.

We share the concern of the methyl bromide users and have been in their place. We are confident that diligent effort on their part and on the part of the policymakers will produce policy decisions that are fair and achievable. For the sake of all who have gone before them, we would want no other outcome so that the Protocol can live up to its reputation as an institution that is achieving its environmental objectives while balancing the economic needs of those impacted by its provisions.

To summarize, our experience has been that the Montreal Protocol process has worked better than could have been expected since its inception in1987; the process can and will take into consideration key industry supplied data in order to arrive at credible decisions on phaseout schedules and critical use exemptions; it is incumbent on the affected industries to invest in developing a credible data base and in educating the parties, including those outside the US, on the importance of their use category; and that the US must do everything it can to remain a Party in compliance with the treaty so as to protect the billions of dollars of investments already made by U.S. companies in ozone protecting technologies and not jeopardize billions of dollars in trade value of the U.S. economy.

Thank you for the opportunity to provide information on this important topic.

Mr. HALL. Thank you very much. That completes the testimony, and we will have some questions now, and I will recognize myself for 5 minutes.

Dr. Mueller, you are phasing out the use of methyl bromide, right?

Mr. MUELLER. Yes.

Mr. HALL. Can you foresee any circumstances where you might use it again and, if so, what might these be?

Mr. MUELLER. I have thought a lot about that question, and right now—I am an entomologist, and resistance is an issue that I am always concerned about, and resistance management is a major part of the components that I build into my international phaseout programs in places like Thailand and Ivory Coast. So, if we can prevent insects from becoming resistance to some of our more popular fumigants that we are using as alternatives, I don't think we need methyl bromide. Maybe something else will come along in the meantime. If we can't, then maybe we will need methyl bromide.

Mr. HALL. Is something else coming along now?

Mr. MUELLER. Yes, there is. Sulfuryl fluoride, a product that has been used for termites——

Mr. HALL. Who produces that?

Mr. MUELLER. That is a Dow AgroScience product. I think there is a company also in Koln, Germany, that makes that product, too. Sulfuryl fluoride looks to me—if I was asked what I would rotate, let us say, a grain fumigation with, I would use sulfuryl fluoride.

Mr. HALL. What impact will the phaseout of methyl bromide have on your fumigation business?

Mr. MUELLER. I guess I really won't know until January 1 of next year. I have told everybody in our company, without methyl bromide, that we would freeze their salary and their income for this year, even though we know that we are going to lose some business.

Mr. HALL. Mr. Brown, because your Congressman might not make it, let me ask some questions that he may want to ask you. Have you tried alternatives to methyl bromide?

Mr. BROWN. Mr. Chairman, we have been trying alternatives to methyl bromide since we were aware that methyl bromide was under the gun to be phased out. As a matter of fact, this year alone the Florida Tomato Committee will invest something over $120,000 to $150,000 in research, in conjunction with our land grant college and USDA research facilities in the State of Florida.

Mr. HALL. Which ones have you found most effective?

Mr. BROWN. In some circumstance, we have found some of the Telone C35 compounds to work, but we have a pest in Florida—

I hope you don't have it in Texas—called "nutgrass," and it will come up through concrete pavement if you give it a crack. And we produce many of the vegetables in Florida that use methyl bromide during a full-bed plastic mulch, and the purpose of that mulch is basically to cover the surface of the bed to keep rainwater from passing through the bed and leaching fertilizer so we have a management system for nutrition and growth of that plant.

When nutgrass comes up in those beds, it is like growing those crops under screen, and it doesn't work. And to date, we don't have an effective control compound for nutgrass control and the use of alternatives in Florida that allows us to produce those crops with those systems.

In other areas, we have the Telone C35. The Telone compound is not registered in some counties in Florida simply because of the risk to groundwater. We have topography in Florida that prevents the use of Telone in accordance to its label in Florida due to coarse topography, and that prevents any major migration to that alternative group by the industry. But we continue to do research. We are doing research this season in large field plots with virtually impermeable films, which are films that are being imported currently out of Europe, not produced in the U.S., that would basically cover those growth surfaces with a plastic material that would prevent any ex-gassing or migration of methyl bromide out of that soil system. And if we were truly addressing the issue of ozone-depletion and methyl bromide's risk to the ozone, if we don't let it escape, it shouldn't even be considered to be a use, but it all falls into the pot with scrutiny as we currently have it structured.

Mr. HALL. You represent the tomato growers in most of Florida, the State?

Mr. BROWN. That is correct.

Mr. HALL. What steps—not you personally—but what steps have you observed for the other growers to have taken to reduce the use of methyl bromide up to this date?

Mr. BROWN. We have been reducing the rate of methyl bromide on a per acre basis throughout the State. We have been combining it with larger and larger quantities of chloropicrin, which is a compound very similar to teargas that is used for some soil disease control programs. We do have some migration to the Telone alternatives in some areas where we have some legitimate use for it, but the industry has progressively moved forward trying to solve that problem, but we have reached the point we don't have a complete solution, and therefore that is why we have a critical use request in place with USDA and EPA.

Mr. HALL. All right. My time has expired. Mr. Allen, recognize you for 5 minutes.

Mr. ALLEN. Mr. Chairman, I will try not to take more than that. Mr. Chairman, I would first like to ask unanimous consent to enter into the record a copy of the membership list of the Alliance for Responsible Atmospheric Policy, a group that Mr. Wolf's company trained as a member of, and I want to note for members of our subcommittee that this organization includes some of the Nation's largest employers—General Electric, Ford Motor Company, Maytag Corporation, and Owings Corning, among many others—who, ac-

cording to Mr. Wolf's testimony, could lose billions of dollars in trade if we violated the Protocol.

Mr. HALL. Is there objection to the admission? The Chair hears none. It is admitted.

[The information referred to follows:]

THE ALLIANCE FOR RESPONSIBLE ATMOSPHERIC POLICY

MEMBERSHIP LIST

Aeroquip Corporation; Air Conditioning Contractors of America; Air Conditioning & Refrigeration Institute; Air Conditioning & Refrigeration Wholesalers Association; Air Mechanical; Alliance for Polyurethanes Industry; Alliance Pharmaceutical Corp.; American Pacific; American Plastics Council; Arthur D. Little; Association of Home Appliances Manufacturers; ATOFINA; Bard Manufacturing Co.; Beltway Heating & Air Conditioning Co.; Cap & Seal Company; Carrier Corporation; Central Coating Company; Cetylite Industries; Copeland Corporation; Delphi Automotive; Dow Chemical U.S.A.; Dupont; E.V. Dunbar Co.; Falcon Safety Products; Fluorocarbon Technology Corp.; Foam Enterprises; Foamed Polystyrene Alliance; Foamseal; Ford Motor Company; Forma Scientific; FP International; GE Appliances; General Electric Company; General Motors; GHG Associates; Gilman Corporation; Great Lakes Chemical; H. C. Duke & Son; Halogenated Solvents Industry Alliance; Halotron; Halsey Supply Co.; Hill Phoenix; Honeywell; Hudson Technologies; Hussmann Corporation; IGC Polycold Systems; INEOS; Institute of International Container Lessors; International Association of Refrigerated Warehouses; International Pharmaceutical Aerosol Consortium; Joint Journeymen And Apprentice Training Trust; Joseph Simons Company; Kysor Warren; Lennox International; Lintern Corporation; Luce, Schwab & Kase; MARVCO; Maytag Corporation; McGee Industries; MDA Manufacturing; Mechanical Service Contractors of America; Merck & Co.; Metl-Span Corporation; 3M Company; Mobile Air Conditioning Society; National Refrigerants; Northland Corporation NYE Lubricants; NYE Lubricants; Owens Corning; Perlick Corporation; Refrigeration Engineering; Refrigeration Service Engineers Society; Refron; Remtec International; Revco Scientific; Ritchie Eng. Co.; Siemens; Solvay; South Central Co.; Society of the Plastics Industries; Sporlan Valve Co.; Spray Foam Alliance; Sub-Zero Freezer Co.; Tech Spray; Tecumseh Products Co.; Thermo-King Corporation; Thermoquest; Total Reclaim; Trane Company; Tyler Refrigeration Corp; Union Chemical Lab, ITRI; United Refrigeration; Unitor Ships Service; Vulcan Materials; Wei T'O Associates; White & Shauger; W.M. Barr and Company; Worthington Cylinder; York International Corp.; and Zero Zone Ref. Mfg.

Mr. ALLEN. Mr. Doniger, in the administration's written testimony, the State Department witness states that parties to the Montreal Protocol can "seek an exemption from the 2005 phaseout, if it determines that the absence of methyl bromide would cause a significant market disruption." The testimony suggests that exemptions are only available to the 2005 phaseout, and that exemptions are not available for the 2003 reduction to 30 percent of baseline levels.

There is no critical use exemption for the interim 2003 reduction to 30 percent of baseline under the Montreal Protocol. Is there, or is there not?

Mr. DONIGER. You are correct. The exception is supposed to be only for that last step between the 70 percent reduction and getting to zero. And so talking about any exemptions above 30 percent is, in my opinion, a breach of the Protocol.

Mr. ALLEN. Has that been challenged by any other parties to the Treaty?

Mr. DONIGER. Well, in a way, yes, because the solution that the parties came up with in the March Extraordinary Meeting is double-capped, that has been referred to, an upper limit on use and a lower upper limit on production and consumption, the 35 and the 30 percent. But I would emphasize that in the decision from

March, the parties set those numbers for the United States and different numbers for other countries as upper limits. And each country is obliged under its domestic law, to consider whether current data on use, current data on stockpiles, would allow for the number to be lower in 2005. And that is the rulemaking that EPA is required to undertake later this year.

The parties also decided in 1997 that there should be no new production—even if there is need, there should be no new production if there is a stockpile. And the United States has never been forthcoming about the amount of the stockpile.

Mr. ALLEN. Thank you. I understand that there are critical use exemptions to exempt activities that are in some way—I understand the critical use exemption is there to exempt activities that are in some way unusual. If the United States was unwilling to ban the use of methyl bromide for its most common function, as a pre-plant soil fumigator, we would never have agreed, and in fact fought for, a full phaseout under the Montreal Protocol and the Clean Air Act.

Do the critical uses listed in the U.S. application include soil fumigation, do you know?

Mr. DONIGER. Well, they do, yes. For example, two of the big ones are for tomatoes and strawberries. But I would just say that I don't think there is any category of use which is not eligible to ask for an exemption, it is the amounts that are in question. It is the huge amounts that are in question. If there were a tail in the phaseout for which there is genuinely no alternative, whether it is field fumigation or mills and so on, it seems to me that as a categorical matter they are all eligible, but I am concerned that they have not made their case and they have not drawn down the stocks.

Mr. ALLEN. Were you here this morning when Ms. McMurray testified for the State Department?

Mr. DONIGER. Yes.

Mr. ALLEN. You may recall, she testified that in their negotiations, they always want to ask for more than they actually need. Did you have any reaction or comment on that testimony?

Mr. DONIGER. Well, I thought it was a very honest comment, and it should be reflected that in my opinion, the grower groups have constructed their applications on the same principle, that they have asked for amounts that would give them the maximum comfort zone, so to speak. They have put in for more than they need.

The nematodes don't attack everywhere at once. There is a notion in these applications, though, that every single use, every single farmer, ought to have a number which is the reserve against the pest outbreak occurring everywhere at once. It just doesn't happen that way.

Mr. ALLEN. If I could just finally turn to you, Mr. Mueller. In Ms. McMurray's prepared testimony—she didn't include it in what she was—she had to shorten her testimony for this morning, but in her written testimony she struck a theme that was much like the theme you were saying—you were describing in your testimony. She said that "staying the course matters to public health and to the ozone layer, but it also matters to the many businesses who took the risk of investing heavily in alternatives that do not dam-

age the ozone layer. A recent letter to EPA from companies making this choice"—like yours—"have built a $10 billion business and trade with ozone-safe American products and technologies that could be at risk if the United States were to take action inconsistent with its commitments under the Montreal Protocol."

Is there anything in that statement that adds to what you said, or do you have any comment on that statement from her, as reflecting the administration's position?

Mr. MUELLER. Yes, I do. You know, so often we talk about fast-track alternatives, and maybe a company is going to come in and take advantage and build this new silver bullet out there. I brought, in 1995, a product over from Australia. It is a cylinderized phosphine material. We have phosphine already registered since the 1950's in the United States. And it took 5 years and $5 million to get the first methyl bromide alternative for structural fumigations approved by EPA.

So, if you are trying to make money in this business by coming out with a new product and getting rich, it is going to take a long time, and it is going to take a lot of money.

Mr. ALLEN. Thank you, Mr. Chairman, I yield back.

Mr. HALL. Thank you. The Chair recognizes Mr. Radanovich, the author of the legislation, for questions.

Mr. RADANOVICH. Thank you, Mr. Chairman, again, for having this hearing, and apologize for having to duck back and forth, but I did want to question the panel. Ms. Bogenholm, I enjoyed your testimony, I thought it was very valuable. And I do have a couple of questions. One is, you are pretty much talking about integrated pest management as a means of addressing what would be a methyl bromide problem.

Ms. BOGENHOLM. Correct.

Mr. RADANOVICH. The other question I have is, not knowing the size of your operation, but are those techniques economically worthwhile in large scale farming?

Ms. BOGENHOLM. Definitely. And, you know, my company grosses over $2 million a year. I am not what you would call a small farmer, according to USDA. I ship berries all over the world. And all these techniques I talk about, which are cover cropping and using compost and different fish emulsions to buildup my soil matter, all of those things are available and they are integrated pest management techniques.

Mr. RADANOVICH. Thank you. Paul Wenger, welcome to the subcommittee. As a constituent of mine, I really warmly want to welcome you. Just because you are my constituent doesn't mean I am going to throw you softballs, but I am kind of curious, if you could give me your story about the use of methyl bromide. Either there is going to be a replacement there, or there is not. It seems to me that there is a lot of talk. I have heard from many folks in chemical industries that say that they do have alternatives available, but they are just not being allowed—forcing farmers to use them.

Can you give me your down and dirty on this thing.

Mr. WENGER. Well, I think there are a couple of things. One, you have probably seen the use of methyl bromide go down because it is extremely expensive. So, as orchardists, during the late 1990's we saw prices we hadn't seen so low since 30 years ago. When you

came to put a second generation orchard in, you had to look very hard at how much you were going to spend for methyl bromide. Besides that, the fact that the Department of Pesticide Regulation in California has come down with more stringent guidelines about the use, so if you are around any kind of a house or school or anything, as I said, any kind of surrounding exposure—there is going to be certain parts of your field you can't treat. So, then you have to take a look at do I really treat the whole field if I only treat a part of it.

Like Mr. Doniger said, maybe nematodes aren't everywhere at once, but tell me where they are in the soil. And we do do soil sampling. We do an awful lot of soil sampling because we don't want to spend up to $2,000 an acre, if we don't have to. And that could be 50—well, it could be anywhere between 40 and 50 percent of your cost of just putting a new orchard in, not counting land values. And so in 1999, when we put in a second generation walnut orchard, and we followed the El Nino year of 1998, and so the trees came out of the nursery, they had been in the nursery 2 years, very high pith, counts on the roots. A good friend of mine had a farm next to me, he was putting in an orchard, a second generation orchard just like mine, but doing it for an absentee landowner. The absentee landowner had a lot of money and they wanted to do the full route. And so they went the full methyl bromide application, and I said, well, we are going to lose methyl bromide, I think it is time I find out how to do it the organic way or the biological way—not necessarily organic, but biological.

So I talked to Tom Umasha and Cherlock Sunburs, an agronomist, he knows these kind of things. He took soil sampling. He came out with biological things that we could do. We inoculated the roots, we put the trees in the ground, and they didn't grow.

The other fellow, his trees didn't grow at first either. We both took soil samples. We had another agronomist come in. We took root samples, pithuniphyte was terribly, terribly high. He had no nematodes, my nematode counts were off the charts. In about 3 weeks, his trees started to grow. This year, he will harvest 3 tons to the acre. I have probably got 2 more years before I will get a ton to the acre.

Now, if you had a full planting like that, you would be broke. Luckily, it is only a 17-acre field, so I thought I have got to experiment, I have got to find out. Since then, we have put on ridamil, datura, we have put on fertilizers, we have put on cattle manure, chicken manure, we have put on sheep manure, we have put on grape compost. We use a cover crop every single year, and it is a fight. By the time I get the orchard going, I will have replanted 75 percent of that original orchard.

Mr. RADANOVICH. Essentially, what you are saying is that integrated pest management or any IPM approach is good, but it is still not going to solve your needs.

Mr. WENGER. It is tough because if you are going in virgin ground—and we call virgin ground something it didn't have—unfortunately, we can't do crop rotations with vines and trees. And so sometimes you have those options with other crops that are annual, we don't have those options. But if we go into where there has not been any perennial crop before, we will take soil samples.

A lot of times you can get away without doing any kind of fumigant at all, and we have done that and been very successful. But what we are looking at now in California is second generation and third generation orchards, orchards that have been in for 30, 40, 50 years, they are coming through now and taking those trees out, and then what we call the next generation, and sometimes now it is a third generation orchard.

Mr. RADANOVICH. And in your case, you are not going to be using methyl bromide except for pre-plant for a vineyard or an orchard that is going to last anywhere between 20 to 40 years.

Mr. WENGER. Right. And now looking back, 20-20 hindsight, when you look back at the time in 1999, I thought I have got to go out and borrow more money, pay more interest for what at that time was going to cost around $1800 an acre. So, I didn't have the money. Now, if I look back, I should have borrowed the money. I would have been money ahead.

Mr. RADANOVICH. Mr. Brown, you made a comment earlier on tomatoes, the use of methyl bromide, and how you have been able to decrease it, part of what was used in order to decrease its use per acre over the years have been in association with a different chemical, and I am not really aware of that. But, Mr. Wenger, too, you mentioned that there has been—because of the price, has caused you to use it more efficiently. Is that the answer, or what has been the main reason why it has decreased in its use—I will ask both of you, maybe Mr. Brown first—over the years? Why have you been able to accomplish that?

Mr. BROWN. Margins in the tomato business are about like it is in the nut business in California, they are real thin or nonexistent. And every dollar you spend in producing a crop is a dollar you have got to struggle to make back on the other end of the enterprise. So there has been a real sense, not only with the phaseout, but a real economic sense of trying to be extremely efficient in use of the compound.

The chloropicrin compound is a way of reducing the poundage of methyl bromide on a per acre basis, and we also, in effect, do a strip mulch for the bed, rather than the sheet fumigation that you may see in California.

Mr. RADANOVICH. Mr. Wenger—and if you would add in there, too, what experience you have had in using some of these alternatives that are out there.

Mr. WENGER. Well, one of the first things we did on hole fumigation where we have a tree blow over and die, we come back and we treat, have methyl bromide in a site treatment, and I will do all that application myself, and it has been a very safe compound to use. Just like anything, you want to be very careful.

Mr. RADANOVICH. That is in like probably a 10 foot by 10 foot area——

Mr. WENGER. Right. Have to go back to a tree hole, and you will go ahead and you will put a pound and a half of methyl bromide. It used to be that methyl bromide was 98/2—98 percent methyl bromide, 2 percent chloropicrin. The chloropicrin was a teargas that would let you know if you had any exposures and to get away from it. It was a safety feature.

So then what they started doing with the phaseout is going to a 75/25 and a 60/40. One of the things we experienced is chloropicrin is also a fumigant, does not leave the soil very quickly, and it takes a much longer time, especially in cold temperatures. We usually do our transplanting in January-February when the temperatures are cold, we will fumigate somewhere in October-November. So, with damp moisture in the ground from the rains and the colder temperatures, we started planting our trees and found out they weren't growing. Now we have learned that chloropicrin will stay in that soil for a lot longer time. So, now you have to do a different management practice, either fumigate way early or wait another year to go ahead and plant. And so because of that, if you could ever find—if you are ever able enough to get some 98 percent, then that is what you want to use.

The other thing I might mention, too, lately now, just the reverse of 1999, as you know, commodity prices go up and down. We are now experiencing some very good prices in the almond industry. And so the usage on second generation orchards is going to go down because any orchard that will produce even a minimal crop is staying in the ground. You know, when prices are good, you don't take trees out. In the next couple of years, we have seen a huge planting increase, a lot of that on virgin soil. So, as soon as those orchards come into production, we are going to have an oversupply mode, price is going to go down, as we know, and all of a sudden you are going to see an awful lot of demand for methyl bromide again, even though you will say that in the past it has been decreasing in its usage. But down the road, as those orchards, now the price comes down, people are going to say, if I am getting 1,000 pounds to the acre, and it goes down to less than $1.00 a pound, I can't even make my way on it for the annual expenses, I am taking the orchard out, and then try to get in that cycle again. And so there will be greater demand. So you can't just look back and say, well, historically, we are reducing methyl bromide. I mean, we are talking about a biological world here, that people are keeping trees in more now, and as soon as the price goes down, that is when growers will make the management decision, it is time to yank those old unproductive orchards and replant and start the cycle all over again.

Mr. RADANOVICH. Mr. Chairman, I realize I am way over my time. I would like another round, if we can, before closing.

Mr. HALL. Can you continue? We are not planning to have another round. Can you continue for another couple of minutes?

Mr. RADANOVICH. I can. I think Ms. Capps would——

Ms. CAPPS. Would you mind taking a second round, I have some people waiting for me in my office. I am sorry. Would you be willing, Mr. Hall——

Mr. HALL. Have you completed your questions, Mr. Radanovich?

Mr. RADANOVICH. For now. I would be happy to yield to Ms. Capps.

Ms. CAPPS. That would be wonderful.

Mr. HALL. The gentleman yields to Ms. Capps.

Ms. CAPPS. Thank both of you gentlemen for yielding to me. I didn't want to miss an opportunity to talk with a fellow representative from the Central Coast of California, Ms. Bogenholm. We are

neighbors to each other, if I may say. Mr. Farr represents you, and I have farmers with good strawberry yields as well, and lots of wine grapes, and you have artichokes, we have broccoli, but it is a lot of the same kind of agriculture. And we also have similar interests among our constituents and your customers in organic farming. I commend you for your description of ways that this can be done. Lots of folks now are asking for pesticide-free fruits and vegetables when they go to the market. Both you and Mr. Mueller have played by the rules and, Mr. Wenger, your story is apropos to my concern and interest here. You have invested time and money into researching and using developing safer alternatives.

In the first panel, I asked the USDA about the $150 million spent on research for alternatives, and I am asking you the same question—is this enough money? What else can we be doing to assist growers and farmers in this area?

Ms. BOGENHOLM. I would like to address the money situation just because I know you guys have lots of things you have to be experts on. The average acre of strawberries grosses $35-40,000 annually. So, when you hear about other fumigation situations costing $200 more an acre, that is really a small amount compared to what that grower is spending to grow that crop. And there are other options that cost more money, and that is the situation that is occurring.

Now, you talk about research dollars, and research dollars have been very, very small in the methyl bromide situation when I started back in 1988 to now. And so in the last couple of years, you have really seen the money ramp up, but what you haven't seen is individual growers doing their own research, which growers do all the time, but in the methyl bromide situation, growers weren't willing to try, that is where you will see the difference.

Ms. CAPPS. That is why I am asking—and others can jump in, too. Why have we not made more progress, is it because this is a partnership and we need to be incentivizing growers perhaps more?

Ms. BOGENHOLM. I truly believe you do incentivize growers to do more research, and I think that individual growers need to have a situation where basically 3 to 4 percent of their production overall is looking at alternatives in order to use methyl bromide, in my personal opinion.

Ms. CAPPS. Oh, have it be that.

Ms. BOGENHOLM. Have it be a requirement by a commodity so all the growers have to try something so that they have to do it; otherwise, growers will never learn how to—you can't just go look at somebody else's field and see what he did and say, "Well, I can do that now." You have got to be trying yourself, or else you would never learn how to do it.

Ms. CAPPS. And the incentive would be there, or the little push to do it, and that would be something that could help growers step over that line. I want some comment, if I have time, but this is my concern. As long as we continue to delay the phaseout, are we continuing then to disincentivize—is that a proper word—are we working at cross-purposes with what this hearing is about. I am thinking of farmworkers' lives, pesticide handlers, school children in nearby communities that get the drift—and it is really hard to protect them from this—in addition to the ozone factor. I wonder if we

are spending enough time considering those alternatives that yield better health and safety benefits. And in whatever time I have left, I will leave it to whoever wants to comment on that.

Mr. MUELLER. I have thought a lot about that, and I believe that the stakeholders or the enterprises have a responsibility to come up with alternatives themselves. It isn't like there is one answer where you can go out and just dial it in and say it is going to work. Even a flour miller, a flour miller with an old mill might have different needs than a flour miller with a brand new mill, or in different geographic locations. So, I think it is up to the individual, and I think there is a price to pay for protecting the environment.

Ms. CAPPS. Well, what do you think of her idea if, in order to use methyl bromide on the majority of your crop, that you would be required—because it really does come down to individual needs, doesn't it, and what works on particular areas—and someone else wants to respond. Thank you. Dr. Mellano.

Mr. MELLANO. I am very sensitive to your concern about health and safety. This morning, you talked about methyl iodide——

Ms. CAPPS. I didn't, but it was brought up.

Mr. MELLANO. It was brought up. Methyl iodide was synthesized by Ord and Simms at U.C. Riverside about 10 or 15 years ago. And one of the first experiments that was done on that was done at our place because I know them. They were actually classmates of mine in school. And I think before you think about methyl iodide as a full-scale substitute for methyl bromide, you ought to take a look at the LD50's. It is highly toxic. In addition to that, it is a liquid at room temperature, which means it can get into the groundwater, and that is one of the reasons why it is not registered.

Now, it works very well. We have been experimenting with it for 10 or 15 years, and we would very much like it to be registered. It will allow us to reduce our methyl bromide use. But I am very much afraid that we may not want what we get there because of the groundwater problem and the toxicity.

Now, relative to farmworkers, the methyl bromide has no effect on the farmworkers because it is gone by the time they come in. And the methyl iodide which is a liquid at room temperature, stays in the soil significantly longer and, therefore, there will be more exposure. So, those are some of the problems that we are dealing with.

Now, I do want to say one thing. I stand corrected on the China thing. I made a technical mistake. It is true that China signed last year, but they still don't have to phaseout the use of their methyl bromide, so the basic premise that I made is still correct. And I am sorry I made that mistake.

Mr. HALL. Do you want to be heard?

Mr. BAIR. Yes. In response to Ms. Capps' question about alternatives and their uses. If you go to the NRDC Web site, which Mr. Doniger represents, virtually every alternative that has been discussed is a viable alternative or a potential alternative for methyl bromide replacement in the industries that I am familiar with, is under attack for some other toxicity or some kind of related problem with those compounds, which gives you a very uncomfortable feeling as are we basically walking off the plank.

Mr. MELLANO. Methane sodium is a primary material, and it is being re-registered, and we are going to lose it, maybe.

Mr. MUELLER. Just two quick comments, if I could, please. All we really need is a menu, a menu to be able to choose from, that we can try A, C and D and combinations to make these things work, and not just one by itself. That is what we have found to work for us.

No. 2, I disagree a little bit. I spent 8 days in the hospital with burned legs and abdomen from methyl bromide. It was the most painful experience of my life. And if you don't believe that, anytime you get burns, second degree burns, those are very painful.

Mr. DONIGER. I think it is worth pointing out that the farm community needs to think about some choices, too, because at these hearings you bring forth witnesses, as they should, who have the most compelling stories to tell, but behind them are a lot of people who actually have less compelling stories to tell. And when they have exemptions which are too big, it is actually making Mr. Wenger's life more difficult, and Mr. Mellano's life more difficult, because it is being misused in its lower value uses.

I have never said the methyl bromide exemptions should go to zero. What we are saying is that they are too high, and they can be lower.

Ms. CAPPS. Thank you.

Mr. HALL. The Chair thanks the gentlelady, she yields back her time. The Chair recognizes Mr. Issa, the gentleman from California.

Mr. ISSA. Thank you, Mr. Chairman, and this is an important hearing, and obviously we have way too many questions and you have way too many answers for us to squeeze into our limited day.

I am a former businessman, so perhaps not having the kind of farm expertise of even one-quarter of one of you, I am going to have to limit my questions more to that sort of part of it.

One that I would have for Mr. Bair, what happens if insects found in a mill—what are the consequences if an alternate system were to fail in a mill—in other words, if you don't use methyl bromide as the most effective system, what happens when a mill fails inspection?

Mr. BAIR. Well, two things. One would be that you would likely be subject to FDA action, including seizure of your food as being adulterated, which obviously is something very serious. But perhaps even more important than that is that you run the risk of angering your customers. I mean, food companies have spent decades, some of them more than 100 years, developing a consumer allegiance, a loyalty to their particular product. And the last thing they want to do in a low margin business is anger any customers.

Mr. ISSA. So it would be fair to say you would end up in about the same position that the company formerly known as Firestone Tires found themselves in, you are essentially talking about a business that has zero-tolerance for failure to provide a healthy safe product?

Mr. BAIR. It is a zero-tolerance. The gentleman who testified in our behalf last year before the subcommittee discussed sifting flour, and we all remember seeing grandmother or mom sifting flour when they baked. And most people assumed that sifting flour had

something to do with imparting—it baked a better cake, or baked a better loaf of bread. The reason grandmother sifted flour was to get the bugs out. And the reason nobody sifts flour anymore is because there aren't bugs in the flour in the first place, and methyl bromide helps us do that.

And I would like to respond, too, there has been a lot said about alternatives here, and I would like to just quickly go through those. To Mr. Wolf, I just want to say, in his words, he said "We have been there," in the Montreal Protocol. With all due respect, you have not been there.

The refrigeration and air conditioning industries, when they phaseout CFCs, first of all, the alternatives were already available. That was a question of engineering and physics. They know what that molecule needs to look like to make refrigeration work.

An example that we are talking about with methyl bromide, it is not an engineering question, it is a biological question. Insects evolve, insects develop resistance, they are changing all the time, weather changes, soil patterns are different—it is a biological problem.

Mr. ISSA. I think not only have you made your point, but I think even among people who might be not totally supportive of the numbers, there is a consensus that at the present time, 100 percent elimination of methyl bromide is not yet appropriate, and I apologize, but I am going to run out of time here.

I guess one quick question which would be for Mr. Brown, if tomorrow California and Florida stopped growing tomatoes, with the alternate—it could happen—with the alternate places that tomatoes come from, Mexico being a major supplier, would there be any less methyl bromide being used today if the two major producing States went out of the business? Do the alternate countries use something else, or do they essentially use the same or greater amount of methyl bromide per acre?

Mr. BROWN. I can't absolutely officially speak on behalf of a Mexican industry that I don't work for and don't represent, but the use of methyl bromide in other parts of the world continues and has a right to continue out to 2015 for those nondeveloped countries.

Mr. ISSA. Okay. Dr. Mellano, in the case of the flour industry particularly, as a San Diegan, we both know that many growers have operations both north and south of the border. If methyl bromide went to zero today, would your 625 acres essentially—not that you would do it—but are they fully transferrable 70 miles south and then until 2015 you could grow using the techniques that are proven?

Mr. MELLANO. The short answer is yes, and in addition to that, TriCal, who is the major fumigator in California, has already set up a Mexican company, and the marketing companies have already set up Mexican distribution centers in anticipation—part of it has got to be in anticipation of the phaseout. So, basically, what is going to happen is methyl bromide is going to move from a highly regulated area in California to a very low regulated area in Mexico. And to me, the total amount is going to continue at the same. That is one of my problems.

Mr. ISSA. Mr. Doniger, I know you have an answer for every question I have, and more, but the question I have for you—I am just trying to do the arithmetic—between you and Mr. Mueller, I think I heard 483 million pounds are being used of methyl bromide, and 22 million are being stockpiled. Would one of you give me the number of use per annum that you were using because the stockpile I got is 22 million and the gross I got is 483 million, which is 5 percent. What is wrong with that figure, in brief?

Mr. DONIGER. Sir, I think the number being used in 2003, the number that corresponds to 30 percent, is about 16.9 million pounds, and the stockpile, by my estimation, is about 22 million pounds.

Mr. ISSA. So if, in fact—I will take the revised. Somewhere we had this 100,000 tons and so on. I was going through—it still is a year to a year and a half of consumption. And I am very supportive that there should not be stockpiling, although I do recognize that some old vehicles are still using the old freon from stockpiling today. Most have converted, but there are still a limited amount using it under strict rules.

What is wrong at a given time with a year and a half of—less than a year and a half of use being available. That seems like it is inefficient, but it doesn't go to the 22 years or decades that was being talked about.

Mr. DONIGER. I asked people in the chemicals industry what is the normal inventory, and the answer is months—for normal chemicals, a few months max, not well over a year. So, this inventory has not been created in conformity with normal practice, it is much bigger than that.

If I may quickly, the tomato crop in California does not use methyl bromide, its critical use exemption was rejected because they don't use it and they don't need to use it, and Mexican use has been going down. It is true that TriCal, the distributor in California, is fishing around to grow the market in Mexico, but it is being driven by the distributor more than by any——

Mr. ISSA. Excellent. I am glad to know that if Florida shuts down, California will be growing profitable tomatoes.

Mr. MELLANO. They would be tough in the wintertime to eat, though.

Mr. ISSA. I will report that to Harry Sing & Sons in my district. The Montreal Protocol limits, as we have discussed repeatedly, to 2005, without exception, unless an exemption is granted, the use of methyl bromide. We are discussing extensions to 2005. In 2015, the same kicks in for developing nations. For all of you on this panel—and I don't want you all to answer, so just "yes" or "no," please, because I want Mr. Radanovich to get back to his time.

If we were to shut down today and Mexico, as our neighbor and a major producing partner and sometimes competitor, were to continue to 2015, haven't we, in a sense, hurt the ability—particularly for the organic industry who have been experimenting and finding alternatives—haven't we, in fact, hurt the ability for them, with their lesser dollars for experimentation, to kick in?

And the final part of this yes-or-no question is, in a sense, don't we need to have a hybrid here of reduce methyl bromide whenever possible, increase experimentation and research so that by 2015 it

will be a very teachable skill to Mexico, China and other developing nations? Isn't that an ultimate goal that we can all agree on here today, that regardless of the size of the exemption, whether something is granted, we have a transition problem in the developed world to get the answers by 2015? Can I just get a yes or no on this, and Mr. Radanovich will ask all your other questions.

Mr. BAIR. Yes.

Mr. BROWN. Yes.

Mr. MELLANO. Yes.

Mr. WENGER. Yes.

Mr. DONIGER. No, it can be done much faster than that.

Mr. ISSA. But, yes, the goal is to get it done.

Mr. DONIGER. To get it done in the next couple of years.

Ms. BOGENHOLM. And the reason it can be done is many of those companies in the United States are growing in Mexico also, most of those companies that are big vegetable companies here are half-owners in major Mexican companies and, yes, it is going to go very quickly down there, much quicker.

Mr. ISSA. Thank you. Mr. Wolf?

Mr. WOLF. I don't have the information to answer.

Mr. ISSA. I will take that as a yes. Thank you. Yield back, Mr. Chairman.

Mr. HALL. Thank you, Mr. Issa. The Chair recognizes Mr. Radanovich. You were kind enough to yield part of your time to the gentlelady from Missouri, so we recognize you for 5 minutes.

Mr. RADANOVICH. Thank you, Mr. Hall. I appreciate it, Mr. Chairman, and for the extra time as well. I am going to try to take advantage of that by asking as many questions as I can, so your short responses would be real helpful.

Mr. Wenger, I think you may have said it in the last round of discussion, the reason for the reduction in the overall baseline, has that been because of a large movement of row-crop production going into fruit-nut production which would require less methyl bromide? Did you or Mr. Brown say that?

Mr. WENGER. I don't know how many of the row crops utilize, but definitely anytime you are talking about cropping patterns, you see a lot going into permanent crops from row crops, especially if they have been unprofitable for some of those in the row crop industry.

Mr. RADANOVICH. But that movement means less use of methyl bromide.

Mr. BAIR. Frankly, because you are either going from every year or almost every year to once over a long period of time.

Mr. WENGER. I think that anytime you look, in agriculture, you better not look at last year and say I am going to plant the crop based on last year because you are going to go broke. You have to look at trends, and I think with methyl bromide it is the same thing. The goal is we want to phaseout. What we are talking about here is the critical use exemption is part of it, and what is fair. And if we are going to phaseout, then the whole world needs to phaseout. But what we are talking about is the critical use exemption.

Mr. RADANOVICH. Very good, thank you. Mr. Bair, you had a similar example of the use of alternatives to methyl bromide in milling that—the story being similar, and it has met with limited success. Can you just briefly tell me that story?

Mr. BAIR. Yes, thank you. There has been much said about sulfuryl fluoride, and I am not disparaging any alternatives. We would like there to be more alternatives. We would like to have more tools in the toolbox. But a couple of facts that are important to know about sulfuryl fluoride, first of all, it is not registered for use on any enrichment, like iron, niacin, riboflavin, thiamin, that are any grain-based foods in your supermarket, it is not approved for use on them. So, if your plant is making, say, a cake mix, and you have got cocoa and shortening and salt and sugar and other things, you can't use it in that situation. It is not approved for—again, ingredients or enrichment.

There are very few international tolerances. So, if you are exporting a food product, your product may very well have illegal residues when it gets to that foreign country. And, also, because of a concern of over-exposure to fluoride, EPA, when they wrote the label, put in some very weird language about exposure to the point where it basically eliminates its use in warehouses or any stored product area.

Mr. RADANOVICH. Very good. Thank you. Mr. Wolf, it seems to me that there is just a lot of debate on whether there really is a substitute for methyl bromide yet or not. And what I get from the testimony is that there really isn't anything out there yet that has all the benefit of methyl bromide without any harm to the environment. Is there something that can exactly replace methyl bromide with all the benefits, and yet not yield the harmful benefits to the environment?

Mr. WOLF. As I stated in my testimony, I am not here with knowledge from methyl bromide, so I am not in a position to answer that question. I don't have the information.

Mr. RADANOVICH. Mr. Doniger, I am wondering if you can give me your thoughts on two products, Telone and Metam sodium, two potential methyl bromide alternatives? Is it true that the NRDC believes Telone to be highly carcinogenic, and metam sodium to be one of the top ten most dangerous chemicals? Do you support its registration as an alternative, or maybe you can elaborate on that.

Mr. DONIGER. These two chemicals are registered now. They are under review, as is methyl bromide. Methyl bromide, I would hazard a guess, was last registered in 1961. They are all overdue for safety reviews. They do need to be subjected to an up-to-date look at health and safety, and EPA is doing them in a package—in other words, all the ones that are used for similar purposes are being evaluated, quite sensibly, in the same package. We don't have any objection to doing that, and we don't want to see methyl bromide replaced by something more dangerous. We want to see the range of alternatives increase.

There are some other compounds in the registration pipeline, as you have heard, and there are practice changes that can be made to further minimize the use of this compound. Things have been coming down. They are lower than the current critical use requests now. Let us take yes for an answer and continue with the progress that is being made. That is our position.

Mr. RADANOVICH. Can anybody on the panel—I am not sure who to specifically ask here, but can anybody give me an idea of when

a suitable alternative to methyl bromide can be available at an economic price to the people that need to use them?

Mr. DONIGER. Sir, it is happening every day, percentage-by-percentage of the use. That is why things have been coming down. We are succeeding. There is not going to be one single chemical that is the drop-in replacement for all uses of methyl bromide, but the suite of alternatives is expanding, and that is why the use is declining. We are at the point now where the exemptions don't have to be as large as what is requested. Not zero yet, but smaller.

Mr. RADANOVICH. But that criteria will never get you to zero. I mean, it just won't happen without a suitable alternative.

Mr. DONIGER. It may.

Mr. RADANOVICH. Mr. Mueller.

Mr. MUELLER. Five years ago, I spent—methyl bromide cost about $1.85 a pound for our company. Today, it costs $8.17 a pound. It was an easy insurance to be able to go in and disinfest a building, a facility, and you didn't have to spend a lot of time sealing or doing the extra things that took manpower. At $8 a pound, you do go in and do all those things, and you reduce not only the number of times you need to fumigate, but the amount of fumigant that you add to an existing building. So, I believe because we are getting better at fumigating and the price is higher, almost four times higher, that the fumigators are using less fumigant throughout the country.

I guess the analogy that I would use is, if gasoline was 25 cents a gallon, you could go out and drive all day long, but if it was $8 a gallon, you would be very careful how you spent it.

Mr. RADANOVICH. All well and good, too, everything that has been done, I think, in reductions is a very good thing, but everything that you are talking about will never get us to zero without a suitable replacement to methyl bromide.

Mr. DONIGER. Sir, I think you are right, except that it won't be one suitable replacement, it will be a set of suitable replacements, and you keep filling out the suite and knocking off categories of use, reducing the total use, that is how the phaseout of CFCs was won, that is how the phaseout of Haalons was one, and there is no one solution for any one of those chemicals that has previously been phased out, and we got there. Now, with CFCs, there is a tiny little exception left for asthma medicines, and it is not as small as it should be because we are even making progress there. You get going, keep it going, and you can get very, very close to zero.

Mr. RADANOVICH. Will that go beyond 2005?

Mr. DONIGER. The inhaler?

Mr. RADANOVICH. Get down to that, because I support the process, I just don't want people going broke in the meantime.

Mr. DONIGER. I am not coming here and saying what the number should be, I am telling you that the number that is requested than where the use and the production are now, and there is this huge stockpile to work down.

Mr. RADANOVICH. Yes. What I am saying is that it is probably going to take a little bit longer than 2005, which is the cutoff date.

Mr. DONIGER. And that is why the exemption process, properly implemented, is there.

Mr. RADANOVICH. Yes, sir?

Mr. MELLANO. I want to say that I agree with Mr. Doniger, and I never do, so I thought I better say that. However, I disagree with his timeline. The flower growers, we are willing to stand on our data, we have it here. Now, if he believes that the timeline should be shorter, they ought to produce data, scientific data, that is all we are asking for, and then we will produce our scientific data, and then you guys can decide. That is all we are asking.

There is no question that we want to reduce it, and we have reduced it. The question is when, and we don't believe we can do it in the next 2 or 3 years.

Mr. RADANOVICH. I agree. Thank you very much for your testimony. Thank you, Mr. Chairman.

Mr. HALL. Thank you, and I thank the committee. It is pretty obvious why the minority and the majority agreed on this panel and selected you, and Chairman Barton agreed to it, because you have been very helpful and you have been very patient. You obviously are all very successful in what you are doing, and you are also generous with your time. We thank you, and we are adjourned.

[Whereupon, at 3:05 p.m., the subcommittee was adjourned.]

[Additional materal submitted for the record follows:]

DOW AGROSCIENCES
August 2, 2004

The Honorable RALPH M. HALL
Chairman, Subcommittee on Energy and Air Quality
2405 Rayburn House Office Building
House of Representatives
Washington, DC, 20510

DEAR CONGRESSMAN HALL, we appreciate the opportunity to provide the Subcommittee on Energy and Air Quality information on the Dow AgroSciences' products that are alternatives to methyl bromide. Our company has a keen interest in this issue as our products are viable, economic alternatives for U.S. farmers and others as they continue the phase-down of methyl bromide in accordance with the Montreal Protocol. Dow AgroSciences has made and continued to make significant investments in research and development, registration and production facilities for the commercialization of effective alternatives to methyl bromide.

We hope that the information provided in this document is informative and helpful as the Committee considers this issue. Please feel free to contact me if I can be of further assistance on this issue.

Sincerely,

REID SPRENKEL
Global Business Leader-Fumigants

cc: Mr. Kurt Bilas

Question 1. Does Dow AgroSciences (or any its affiliates) manufacture, export or import MB in the United States? Anywhere in the world?

Response: No, although our parent, The Dow Chemical Company, was a producer of methyl bromide (MB) up until the mid-1980's, Dow Chemical has divested all its MB business and no longer manufactures, exports or imports MB.

Question 2. What products does Dow AgroSciences currently market that could serve as an alternative to MB?

Response: Dow AgroSciences currently markets several products that are effective MB alternatives that include one of the following active ingredients: 1,3-dichlorpropene (1,3-D), 1,3-D plus chloropicrin and sulfuryl fluoride. Dow AgroSciences markets other products that, to a lesser degree, also control pests for which MB is used.

1,3-D is a mainstay agricultural preplant soil fumigant for controlling nematodes, weeds and diseases in key horticultural crops. When combined with chloropicrin, 1,3-D controls an even broader range of soil borne pests. 1,3-D is marketed in the United States under the brand names Telone®, Curfew® and InLine®. 1,3-D products are also marketed under other brands by U.S. formulators. In addition to these, other Dow AgroSciences' products such as Goal® and Treflan® herbicides, can be

used in combination with 1,3-D in some cropping situations to enhance weed control performance.

Sulfuryl fluoride is marketed under the brands ProFume™ gas fumigant for postharvest applications, such as grain processing facilities, and Vikane™ gas fumigant for structural fumigations to control termites and other pests. ProFume received US EPA registration in January, 2004 for use on dried fruits, and tree nuts as well as in grain milling facilities and additional registered uses for ProFume are expected soon.

Question 3. Can these alternative products completely replace the use of MB at this time?

Response: Not completely, but they are viable alternatives for most current MB applications.

Question 4. Are these alternatives registered? What is the status of their registration?

Response: Yes. Each of the Dow AgroSciences fumigant alternatives to methyl bromide has been registered by the US EPA. In fact, 1,3-D and sulfuryl fluoride are the only fumigant products that have successfully completed the US EPA re-registration process ensuring their future as alternatives to methyl bromide.

Question 5. Are there any environmental issues associated with these alternatives? Please explain.

Response: Successfully completing the EPA re-registration process is a clear demonstration that Dow AgroSciences' methyl bromide alternative products satisfy the comprehensive requirements of modern pesticide regulatory standards, and, when used according to label directions, do not present unreasonable risks to humans or the environment.

Question 6. What crops are 1,3-D plus chloropicrin used on? How long has this product been on the market?

Response: Products containing 1,3-D plus chloropicrin are registered in the US for fumigation of soil prior to crop planting. There is no limit to the range of crops on which the products can be used. 1,3-D plus chloropicrin has been registered and sold in the US since 1975. Today these products are used successfully in preplant operations for a wide variety of fruit and vegetable crops nationwide, most notably, but not limited to, strawberries, tomatoes, peppers, melons, onions, carrots, fruit and nut trees (replanting) and flowers.

Question 7. What pests are controlled with 1,3-D plus chloropicrin products and how does that compare to MB?

Response: Like MB, 1,3-D plus chloropicrin products control a broad spectrum of soil borne pests, nematodes, diseases and weeds. The broad spectrum control provided by these products allows farmers to reliably establish strong, healthy plants that lead to higher yields of high quality produce.

There is a very large database of field trial results in the US (much of which has been generated by USDA and university researchers over the last 8-10 years) that show 1,3-D plus chloropicrin products compare favorably with MB, provide comparable control of pests, and produce equivalent crop yields. In fact, in many instances yields from 1,3-D plus chloropicrin treated crops are higher than those from MB treated crops, as demonstrated by the increase adoption and use of this product in the market place in strawberry and other crops .

Question 8. How does this product compare in cost to MB?

Response: 1,3-D plus chloropicrin products are typically equal to or less expensive than MB. For example, for California strawberries, the most widely used 1,3-D+chloropicrin product, InLine®, costs less than half that of MB per acre. In the Southeastern US, a typical "in bed" application of Telone® C-35 (1,3-D plus chloropicrin at 35%) combined with herbicide costs approximately $100 less per acre than the typical dose of MB. It is important to note that prices may vary from state to state and can fluctuate. The dose used can also affect the cost. Again, as a general rule, 1,3-D plus chloropicrin products are favorably priced and often less expensive than MB.

Question 9. How does this product compare in efficacy to MB?

Response: The efficacy of 1,3-D plus chloropicrin, either alone or in combination with an herbicide when needed, compares very favorably with MB and MB plus chloropicrin combinations. Telone products have been tested extensively in commercial scale research and demonstration trials in the US and internationally and have demonstrated consistent, high levels of efficacy.

Question 10. How do the crop yields using this product compare to those grown using MB?

Response: 1,3-D plus chloropicrin, either alone or in combination with an herbicide when needed, has provided yields as good as or better than MB and MB plus chloropicrin combinations in numerous commercial scale research and demonstra-

tion tests. This is validated by the increasing adoption of Telone products on key crops in the US and overseas.

Question 11. How will township caps in California and karst restriction in Florida impact the use of Telone products?

Response: *Township caps in California:* Recognizing the important role of 1,3-D as a methyl bromide alternative, the California Department of Pesticide Regulation (CPDR) has developed and implemented a "California Management Plan" (CMP) for 1,3-D. The CMP, which provides flexibility in the township allocations of 1,3-D within California, permits annual uses of 1,3-D at a level of 180,500 "adjusted" pounds per township. For areas requiring uses that exceed this level, the CMP can accommodate a greater demand if it is justified by region-specific assessments. This "region specific" facet of the CMP is what has been utilized recently to permit annual township allocation levels greater than the 180,500 lbs in specific "high need" townships in Merced, Santa Barbara and Ventura counties.

It is important to stress that if 1,3-D were the only alternative to methyl bromide, the current CMP would not likely have the capacity to support a complete changeover from methyl bromide to 1,3-D in all of the 350 fumigant use townships in California. Instead, in approximately 20 of the 350 townships, additional alternatives would be needed. Methyl bromide alternatives other than 1,3-D are registered in California (e.g. chloropicrin and metam-NA) and are well positioned to satisfy this need.

Fortunately, the uses of methyl bromide in California are tracked and regulated using a system similar to that required for 1,3-D within the CMP. These methyl bromide township limits (now being converted within the CDPR regulations to monthly air concentration limits) in combination with the 1,3-D CMP product tracking and allocation requirements provide an excellent framework upon which to base the allocation of licensed methyl bromide within California following the phase-out of that product beginning January 2005.

Karst geology in Florida: The vast majority of Florida tomatoes, peppers and strawberries are grown in seven counties, with only 10% of the current methyl bromide uses on these crops occurring in regions of the state where karst conditions are known to exist.

Buffer Zones: In 2003, the US EPA approved a refinement of the required 1,3-D buffer zone on all Telone labels from 300 feet to 100 feet for annual cropping. Farming is predominately in areas of low housing density and buffer zones have minimal impact on acreage able to be treated. In the worst cases of high housing density area, analyses of satellite images of small fields show that less than 3 % of the field acres are affected by buffers of this size. Given the predominate areas of low housing density, this impact of buffer zone restrictions is negligible.

Question 12. Are there herbicides registered and available that will help control tough to control weeds such as nutsedge? If so, how do they compare in efficacy and cost to MB?

Response: Yes, two new herbicides with excellent activity against nutsedge have been registered and are commercially available. Both received expedited review by the EPA as methyl bromide alternatives due to their nutsedge activity. Halosulfuron methyl is registered as Sandea® by the Gowan Company. Syngenta recently introduced trifloxysulfuron-sodium, the active ingredient in Envoke®. Both products are labeled for tomatoes. Sandea has a broad label and can be used on many other crops. Efficacy of both products is very good. Other existing products have been used to manage nutsedge. Dual® Magnum has been approved for use against nutsedge and peppers in Florida. In addition, fumigants and herbicides such as metam sodium, Treflan® and Devrinol® have demonstrated utility in helping to manage nutsedge when used in combination with 1,3-D.

Question 13. 1,3-D recently received changes to the label regarding personal protective equipment (PPE). Please explain what those changes were and how this will affect the usage of this product? Please describe the PPEs required for MB?

Response: In 2003, the Telone product labels received significant changes related to the Personal Protective Equipment (PPE) requirements. The PPE requirements (including respiratory protection and dermal protection) for the 1,3-D plus chloropicrin combination products are now consistent with other soil fumigants that are used in combination with chloropicrin, including methyl bromide.

Question 14. Are Telone products viable alternatives for all pre-plant uses of MB?

Response: Yes. As preplant soil fumigants, Telone products with and without chloropicrin can be used for all the same uses as MB. It is recognized that there are legitimate situation locations for which other alternative solutions are needed or critical use exemptions may be appropriate where limitations of alternatives exist, i.e., after township caps in California are reached and in the 10% of acreage in Florida where specific restrictions exist.

Question 15. Are Telone products economic alternatives for all pre-plant uses of MB?

Response: Yes. As pre-plant soil fumigants, Telone products with and without chloropicrin can be used economically for all the same uses as MB as has been seen with the increasing adoption of Telone products on key crops in the US and overseas It is recognized that there are legitimate situation locations for which other alternative solutions are needed or critical use exemptions may be appropriate where limitations of alternatives exist. i.e., after township caps in CA are reached, in the 10% of acreage in Fl where specific restrictions exist.

Question 16. Have Telone products been tested under commercial production conditions?

Response: Yes. Telone products have been tested extensively under commercial production conditions in the US and widely used for commercial crop production in the US *and* internationally for decades. Telone has already been utilized in place of MB successfully in US crops such as strawberries and peppers in California. Is has also been adopted in various crops in Europe and Australia, including tomatoes, strawberries and peppers, and is also used in several Article 5 countries.

Question 17. Have Telone products been tested extensively inside the US?

Response: Yes. Telone products have been tested extensively in the US *and* widely used for commercial crop production in the US and internationally for decades. Telone has already been utilized in place of MB successfully in US crops such as strawberries and peppers in California. Is has also been adopted in various crops in Europe and Australia, including tomatoes, strawberries and peppers, and is also used in several Article 5 countries.

Question 18. How will the US EPA Re-registration process affect Telone?

Response: 1,3-D has completed the EPA re-registration process. It is important to note that 1,3-D is the *only* soil fumigant active ingredient that has successfully completed this process. Following the issuance of the 1,3-D re-registration decision by the US EPA, Dow AgroSciences has worked successfully to refine and reduce some of the restrictions that were placed on the product as a condition of re-registration (e.g. buffer zone distances). These post-RED regulatory refinements help optimize the opportunities for 1,3-D soil fumigants to effectively serve as alternatives to methyl bromide. It is important to note that as other soil fumigants complete the re-registration process, it is likely their use conditions and restrictions will be similar to those for 1,3-D.

Question 19. What types of application equipment can be used to apply Telone products?

Response: Telone products have significant application flexibility and can be applied in two basic ways: (1) Using the traditional shank-injection method in the same manner that MB is applied. This method is a direct "plug-in replacement" application method and requires very little change from the current MB application technology. (2) Telone products can also be applied by drip irrigation method whereby the products are injected at very low concentration into irrigation water and applied through irrigation drip tape. This application method offers additional technical advantages, flexibility and conveniences to growers. Drip application is not technically possible with MB.

Question 20. Are there advantages to using MB rather than Telone products? If so, please describe them.

Response: Telone and MB have various strengths and weaknesses which vary depending on the crop and conditions under which they are used. Perhaps, the most significant advantage of using MB is just the *familiarity* that some users may have with the product. The US Critical Use nomination process has resulted in generous allowances for some sectors and has not provided incentives to adopt alternatives. However, many farmers have evaluated alternative technologies and learned to use Telone products and other alternatives to their advantage. The adoption of 1,3-D by California strawberry growers, so far converting approximately 25% of the California strawberry acres, is an excellent example of the ongoing market transition to alternatives.

Question 21. Are there limitations on the use of Telone products as an alternative to MB? Please explain.

Response: As preplant soil fumigants, Telone products with and without chloropicrin can be used for all the same uses as MB. It is recognized that there are legitimate situation locations for which other alternative solutions are needed or critical use exemptions may be appropriate where limitations of alternatives exist, i.e., after township caps in CA are reached and in the 10% of acreage in Florida where specific restrictions exist. Where severe hard-to-control weed problems exist, such as nutsedge, other herbicides can be used in combination with the fumigation treatment to overcome this concern.

Question 22. Can U.S. farmers completely stop using MB and switch to Telone products today?

Response: Yes, for pre-plant applications, and in fact some farmers already have. The success of this is further demonstrated with the increasing adoption of Telone products on key crops in the US and overseas. While some farmers may not choose to convert all their acres immediately to an alternative, the transition is already underway in many instances.

Question 23. Why did Dow AgroSciences develop sulfuryl fluoride (SF) for postharvest fumigation?

Response: Dow AgroSciences began the development of ProFume to ensure that U.S. agriculture would have an effective post-harvest fumigant following the phase out of methyl bromide in 2005. The development of ProFume was initiated in the mid 1990's in response to the dried fruit and tree nut industry's expressed need for a MB alternative. Sulfuryl fluoride had already become a widely used fumigant for structural uses where MB had once been used. The initial work to develop ProFume as a commodity fumigant was a cooperative effort between the California Dried Fruit Association and the USDA laboratories in Fresno. Once initiated, the work was expanded to include uses in cereal grain storage, milling and food processing.

Question 24. What is the current registration status within the US including the status of state registrations?

Response: Since obtaining the US EPA Section 3 registration for ProFume in January, 2004, 47 states plus the District of Columbia have granted approval. ProFume registration decisions in the remaining 3 states are anticipated before the end of 2004. Vikane has been registered for use in the U.S. since 1961 and is registered in all states where it is needed.

Question 25. Which pests does SF target? Does it kill all life stages including eggs? Does MB kill all life stages including eggs?

Response: Yes, sulfuryl fluoride controls all life stages of all pests of economic importance in structural and postharvest uses. These pests include beetles, weevils, termites, moths and rodents. SF has been registered for more than 40 years and effectively used in millions of fumigations world wide that validate the effectiveness of this compound. For postharvest uses specifically, laboratory research, field research trials and commercial applications of ProFume have demonstrated that SF is effective as a methyl bromide alternative.

Question 26. How does the operational down time of a facility fumigated with SF compare to MB? Will a grain mill or other food handling facility be required to be shut down longer due to fumigating with SF?

Response: No, users of ProFume will not be subject to longer shut down time as compared to fumigation with methyl bromide. In developing ProFume, the milling and food handling industry stressed the requirement that any new pest control technology that lengthens down time would not be acceptable. The concept of Precision Fumigation* was developed with that goal in mind. Experience has shown that using Precision Fumigation, the fumigator and miller have the flexibility to alter the actual exposure time dependent on the target pest, environmental conditions, quality of sealing, etc. In most cases, SF fumigations have been successful with exposure times equal to or less than those required for MB fumigations.

Question 27. How does the cost of SF compare to MB? Does the fumigant represent a large percentage of the total cost of a fumigation treatment? Will using SF cause a rise in the price of food commodity due to a higher cost of fumigation for a food processing facility?

Response: Overall, the cost of fumigation is not a significant part of the overall annual production cost for a mill. Any difference in cost between treatments with these two fumigants is insignificant in the overall operations costs of the food processing facility. By incorporating good fumigation practices, like Precision Fumigation, and effectively using the Fumiguide* Program for ProFume gas fumigant, these differences can be minimized. Generally speaking, the cost of the fumigant is roughly ⅓ of the total cost of the fumigation. Other components include labor and fumigator profit.

Question 28. Please explain the concept of "Precision Fumigation" and how it will be used by the fumigation industry?

Response: Precision Fumigation is based on Integrated Pest Management (IPM) principles and is a decision making process that takes into consideration factors like pest biology, environmental conditions, exposure time, and sealing effectiveness in order to optimize dosage, application rates and timing. By taking into consideration all of these key fumigation variables, the fumigator can offer flexibility to his customer to minimize the downtime of the mill. ProFume is the only product that incorporates tools such as the Fumiguide and Precision Fumigation to enable the fumi-

gator to efficiently manage a host of complex variables and offer the miller a variety of choices relative to the fumigation of his facility.

Question 29. Does Dow AgroSciences have enough production capacity to supply the anticipated demand for SF?

Response: Yes. Dow AgroSciences production capacity can meet the growing market need today. Dow AgroSciences has made substantial investment in expansion of its sulfuryl fluoride production capacity in anticipation of greater demand following the scheduled phase-out of MB in the postharvest fumigation market.

Question 30. In what uses, geographies or circumstances would SF *not* be a viable alternative to MB?

Response: Sulfuryl fluoride is not being developed for use in the control of pests in *fresh* fruits and vegetables and *fresh* cut flowers due to the potential for fumigants to cause damage to these commodities. ProFume would have a fit in many quarantine and pre-shipment applications; however, exemptions for methyl bromide under the Montreal Protocol in this use pattern have made this potential label expansion a low priority for development at this time.

Question 31. Are there advantages to using MB rather than SF? If so, please describe them.

Response: ProFume and MB have various strengths and weaknesses which vary depending on the conditions under which they are used. Perhaps, the most significant advantage from using MB is just the *familiarity* that users may have with the product. Some fumigators have been using MB for decades and may prefer to continue using what they know, rather than make the effort to adopt alternative technologies. Other fumigators have already successfully transitioned to ProFume and other alternatives. As previously stated, sulfuryl fluoride marketed as Vikane gas fumigant has replaced the vast majority of methyl bromide in the structural fumigation market. Users accustomed to methyl bromide for years have successfully switched to Vikane.

Question 32. Are there limitations on the use of SF as an alternative to MB? Please explain.

Response: While sulfuryl fluoride compares favorably to MB in performance and properties, as well as being an excellent alternative, there are some food uses for which sulfuryl fluoride is not yet registered.

Question 33. Does Dow AgroSciences have an estimate of the amount of MB that can be replaced using either Telone products or SF today? In one year? In two years? In three years? In ten years?

Response: Methyl bromide users have successfully phased-out a significant MB volume over the past 10 years. During this time there have been no production disruptions or economic disadvantages faced by farmers or others who have converted to alternatives. Dow AgroSciences believes that this trend towards phase-down can continue without causing economic disruption to current MB users. As market adoption of 1,3-D and sulfuryl fluoride as MB alternatives continue, taking into account the limitations discussed in this Q&A, the United States could phase down methyl bromide use to at least 20% of the 1991 base in three years or less. Further reduction of MB could take place if other alternatives were also adopted.

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DOW AGROSCIENCES
August 27, 2004

The Honorable RALPH M. HALL
House of Representatives
2405 RHOB
Washington, DC 20515

DEAR CONGRESSMAN HALL, er your letter dated August 17 attached are the responses to the follow-up questions posed to Dow AgroSciences regarding methyl bromide alternatives. We appreciate the opportunity to add to the hearing record regarding this subject. Your letter requested that both an electronic and paper copy of the responses be sent. Unfortunately, we do not have electronic versions of all the supporting documentation/studies. Consequently, only a paper copy is provided for some of our responses. The support materials (both paper and electronic) are

contained in the accompanying three ring notebook. We appreciate your interest in this important issue.

Regards,

REID SPRENKEL
Global Business Leader—Fumigants

cc: Mr. Mark Menezes
Mr. Kurt Bilas

FOLLOW-UP QUESTIONS:

Question 1. In your response to Question No. 7, you state, "In fact, in many instances yields from 1,3-D plus chloropicrin treated crops are higher than those from MB treated crops, as demonstrated by the increase adoption and use of this product in the market place in strawberry and other crops." Please provide summary data that support this statement with regard to both increased crop yields and increased use.

Response: There are several studies conducted by independent researchers that demonstrate yields with alternatives that contain 1,3-D plus chloropicrin are as good as or better than those with MB. The most well known and longest running study has been conducted by IR-4 since 1999. Two strawberry research trials were conducted each year in both Florida and California. Numerous alternative treatments were compared with the MB standard on commercial farms. Results from the first three seasons have been summarized and are included. In these 12 trials, 15 of the 18 treatments that contained 1,3-D plus chloropicrin were numerically superior to the MB plus chloropicrin standard in the same trial. Similar results came from a separate study in Florida. In this two year study, a 1,3-D plus chloropicrin treatment, in combination with registered herbicides, was compared to the standard MB plus chloropicrin treatment on commercial farms. Seven trials were conducted on tomatoes and three on pepper by University or USDA researchers. The 1,3-D plus chloropicrin treatment was numerically superior to the MB standard in six of the seven tomato trials and two of the three pepper trials. Average yield increases over all trials were 7.97 and 7.17 percent for tomato and pepper, respectively. In addition, two recent publications (Gilreath et al. 2004. Crop Science) document the yield increase of 1,3-D plus chloropicrin compared to MB in tomatoes and peppers. Supporting details and documentation of each of these research trials are included as both hard copy and electronic attachments.

Documentation to demonstrate increased adoption of 1,3-D plus chloropicrin comes from Crop Data Management Systems (CDMS) in California. All applications of any pesticide must be recorded in California and CDMS is the company that maintains and reports these records. Between the years 1999 to 2003, use of 1,3-D has increased from 632 to 2512 acres in peppers and from 0 to 5817 acres in strawberries. Overall use of 1,3-D in the state has increased from 31,661 acres to 53,401 acres in this same time period. A hard copy summary of this information is attached.

Question 2. In your response to Question No. 10, you state, "1,3-D plus chloropicrin, either alone or in combination with an herbicide when needed, has provided yields as good as or better than MB and MB plus chloropicrin combinations in numerous commercial scale research and demonstration tests." Please provide summary data that support this statement.

Response: Data to support this question are the same as those cited for the above question which, in part, requested information to document yield performance of 1,3-D plus chloropicrin relative to MB.

Question 3. In your response to Question No. 25, you state, "For postharvest uses specifically, laboratory research, field research trials and commercial applications of ProFume® have demonstrated that SF is effective as a methyl bromide alternative." Please provide summary data that support this statement.

Response: Laboratory research results have been widely reported within the international community. The results of one such study, conducted by Central Sciences Laboratory in the UK is attached in which Dr. Chris Bell, globally recognized as an expert in stored product insect control, characterizes sulfuryl fluoride as a "like for like" replacement for methyl bromide in many ways. The efficacy of sulfuryl fluoride is also described in the May, 2002 issue of the American Institute of Baking Technical Bulletin. Fumigation companies that are responsible for the majority of mill fumigations within the US also report successful experiences with ProFume® in the attached newsletters from both Industrial Fumigants Company (IFC) and Fumigation Service and Supply, Inc., two of the largest fumigation companies within the US summarize their positive experiences using ProFume. Positive results with ProFume in the Dried Fruit and Nut Industry are reported in the attached article

found in the Pacific Nut Producer Magazine, featuring comments from both Diamond Walnut of Californian and the California Dried Fruit Association. Three attached articles from the USDA publication "Methyl Bromide Alternatives" also discuss the future of ProFume as an alternative to methyl bromide.

Question 4. In your response to Question No. 26, you state, "In most cases, SF fumigations have been successful with exposure times equal to or less than those required for MB fumigations." Please provide summary data that support this statement with regard to both effectiveness and exposure times.

Response: The attached Louisiana Rice Mill case study describes the efficiencies that can be achieved with ProFume and Precision Fumigation techniques. Decreased down time for the mill results from a combination of shorter exposure and aeration periods. This case study is representative of what would be expected in mill and food processing facility fumigations in general. Since the first commercial sales of ProFume in the US in April of this year, roughly 10% of the wheat and rice mill fumigations that have occurred (22 out of an estimated 237 fumigations) have been done using ProFume. Seventeen wheat mills and 5 rice mills across a wide geography within the US have been successfully fumigated with this product in the first four months since product launch. Several of these mills are planning subsequent fumigations with ProFume based on a high level of customer satisfaction relative to biological control, mill down time, and the flexibility which is offered by the FUMIGUIDE® and Precision Fumigation®. Dow AgroSciences anticipates that in 2005 ProFume will displace methyl bromide in 35% of the mill fumigations in the US and that in 2006 ProFume will be able to displace 100% of the methyl bromide used in milling, food processing and dried fruit and tree nut fumigations in this country.

Question 5. In your response to Question No. 31, you state, "As previously stated, sulfuryl fluoride marketed as Vikane® gas fumigant has replaced the vast majority of methyl bromide in the structural fumigation market." Please provide summary data that support this statement with regard to the reference to "vast majority."

Response: Sulfuryl fluoride as Vikane® gas fumigant was first sold in the 1960's as a replacement for methyl bromide in the structural fumigation market. The development of Vikane was driven by the need to offer the drywood termite control industry a product that would not cause the odors which were often associated with methyl bromide fumigation. Throughout the 1970's and 1980's both Vikane and methyl bromide were used in this market. Throughout the 1990's, methyl bromide experienced increasing regulatory restrictions which ultimately led to its near demise within the residential drywood termite market and is rarely used today. Independent market research conducted as recently as 2003 by Specialty Products Consultants, LLC and summarized in the report entitled "An Analysis of the U.S. Structural Pest Control Industry" supports that Vikane is by far the market leader in the residential fumigation sector within the United States.

Question 6. In your response to Question No. 32, you state, "While sulfuryl fluoride compares favorably to MB in performance and properties, as well as being an excellent alternative, there are some food uses for which sulfuryl fluoride is not yet registered." Please describe the food uses for which sulfuryl fluoride is not yet registered. Is sulfuryl fluoride now in the process of being registered for these food uses? If so, when do you expect the registration process to be complete? If not, why not?

Response: As described in question 24, ProFume is not yet registered for use on "processed foods" beyond those specifically listed on the current Section 3 registration (cereal grains such as wheat, rice, corn and most dried fruits and tree nuts). The current ProFume registration permits the fumigation of these commodities and their processed fractions as well as the facilities (mills) in which they are processed. Additional "processed foods" such as spices, finished bakery goods, and etc. are anticipated to be added to the federal label by first quarter, 2005. The residue research has been completed and the registration package is at the US EPA for review at this time. ProFume will not be developed for use in the fumigation of FRESH fruit and vegetables or FRESH cut flowers due to phyto toxicity concerns on fresh produce.

Question 7. In your response to Question No. 33, you state, "As market adoption of 1,3-D and sulfuryl fluoride as MB alternatives continue, taking into account the limitations discussed in this Q&A, the United States could phase down methyl bromide use to at least 20% of the 1991 base in three years or less." Please provide summary data that support this statement.

Response: 19.7 MM lbs of MB have been requested for CUE's in the US which represent 35% of the 1991 base amount. We believe there are approximately 11.5 MM lbs (about 20.4% of the 1991 base) being requested for which our products today do not have a current or known pending fit.

The resulting 8.2 MM lbs are in areas which our products, with or without an available herbicide partner, can replace. This includes 1.7MM lbs requested for post-harvest uses that can be replaced by sulfuryl fluoride, the active ingredient in ProFume gas fumigant. Registrations and ample supplies of ProFume will be available by the end of 2005 to displace all but 2% of the requested methyl bromide pounds in 2006. The remaining 2% are for uses that ProFume is not known at this time whether it will have a fit, such as smokehouse ham and cheese fumigations.

The other 6.5MM lbs of the 8.2 MM lbs come from replacement of preplant uses of methyl bromide with Telone products. This still leaves a total of 11.5 MM lbs of methyl bromide for which Telone products do not currently represent a viable alternative. At the present time, Telone is not a viable alternative only for certain types of specific conditions. For example, acres planted which exceed allowable use of Telone because of California township allocation limits, areas limited by karst topography or some soil types, and insufficient product efficacy data for some minor uses.

We believe a three year timeframe is a reasonable and necessary period to transition to new alternatives. This timeline is also consistent with guidelines published in a recent MBTOC report. Although the intention of the Montreal Protocol would have been to reduce production and use to zero by 2005, it now isn't practical to expect such a reduction to happen overnight. For a reduction to the 20% level, it seems reasonable to implement a plan for the user community and others to transition at scheduled increments. So, if the starting point in 2005 is 35%, a 5% reduction per year for three years would result in a reduction to 20%.

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