

# REVIEW THE EPA PESTICIDE PROGRAM

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## HEARING

BEFORE THE

SUBCOMMITTEE ON CONSERVATION, CREDIT,  
RURAL DEVELOPMENT, AND RESEARCH

OF THE

COMMITTEE ON AGRICULTURE  
HOUSE OF REPRESENTATIVES

ONE HUNDRED NINTH CONGRESS

SECOND SESSION

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[*Editor's note:* The EPA did not respond with answers to submitted questions.]

## REVIEW THE EPA PESTICIDE PROGRAM

THURSDAY, SEPTEMBER 28, 2006

HOUSE OF REPRESENTATIVES,  
SUBCOMMITTEE ON CONSERVATION, CREDIT,  
RURAL DEVELOPMENT AND RESEARCH,  
COMMITTEE ON AGRICULTURE,  
*Washington, DC.*

The subcommittee met, pursuant to call, at 10:00 a.m., in room 1300, Longworth House Office Building, Hon. Frank D. Lucas (chairman of the subcommittee) presiding.

Present: Representatives Moran, Osborne, Schwarz, Fortenberry, Goodlatte [ex officio], Holden, Cuellar, Etheridge, Butterfield, and Peterson [ex officio].

Staff present: Joshua Maxwell, subcommittee staff director; John Goldberg, Callista Gingrich, clerk; Christy Birdsong, and Nona Darrell.

### OPENING STATEMENT OF HON. FRANK D. LUCAS, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF OKLAHOMA

Mr. LUCAS. The hearing of the Subcommittee on Conservation, Credit, Rural Development and Research to review the Environmental Protection Agency pesticide program will come to order.

Today, the subcommittee will again focus its attention on the topic of pesticide regulation. This committee has a long history of aggressive oversight of the Office of Pesticide Programs at the EPA. While at times this oversight has been contentious, in recent years we have had what I believe is a much more productive and mutually respectful relationship.

That is not to say that we have agreed with everything that the EPA has done. In fact, we can point to numerous examples in just the past few weeks of actions taken by the EPA which are potentially devastating to farmers and ranchers in America. I am referring here to last week's decision to finalize a regulatory standard for dust in rural communities. By EPA's own admission, the data linking dust to health effects in rural communities is, at best, inconclusive. Despite this fact, the Agency has recklessly moved forward with a step that will cost agriculture billions of dollars to comply with.

Of course, in the realm of pesticide policy, there have been similar problematic decisions for American farmers, decisions relating to pesticides such as AZM and carbofuran come to mind.

Despite these negative decisions, we have had some recent successes. With the full cooperation and support of the EPA, this com-

mittee was able to unanimously report legislation that, when enacted, will bring the U.S. into full compliance with the global POPs Treaty, and more importantly, give us a seat at the negotiating table as this important treaty is implemented.

I would like to take the opportunity to examine the past, present and future of the EPA pesticide program. In order to do that, I ask each of our witnesses to include in their testimony a retrospective review of the Food Quality Protection Act, to comment on the progress of discussions with Canada regarding harmonization of pesticide reviews, and to preview for the committee the issues that we will need to consider for the reauthorization of the Pesticide Registration Improvement Act. This is not a request to limit testimony to these issues. In fact, I expect several other issues will be discussed today. My purpose is to stimulate a discussion on where we have been, where we are, and where we are going.

And before welcoming our first witness, I would like to yield to the chairman of the full committee for any statement he might have.

And with that, I will yield to my ranking member, Mr. Holden.

**OPENING STATEMENT OF HON. TIM HOLDEN, A REPRESENTATIVE IN CONGRESS FROM THE COMMONWEALTH OF PENNSYLVANIA**

Mr. HOLDEN. Thank you, Mr. Chairman, for holding this hearing on the proper use of crop protection products, such as pesticides, that can help our farmers provide consumers with a safe, affordable, and reliable supply of food and fiber. Many laws and regulations oversee the application of pesticides, and we will hear from our witnesses today about them.

We just passed the 10th anniversary of the Food Quality Protection Act. The act required EPA to reassess the safety of thousands of existing pesticides' tolerance by August, 3 2006. The Pesticide Registration Improvement Act has ensured that EPA can better meet funding and decision timelines for the pesticide registration process; and there is also interest in harmonizing pesticide regulation so that safe and effective products can move across international borders. I look forward to hearing from our witnesses about these issues and ways we can do a better job of protecting both people and crops.

Mr. LUCAS. And the Chair now turns to the full committee chairman, if he has a statement.

Mr. Goodlatte.

**OPENING STATEMENT OF HON. BOB GOODLATTE, A REPRESENTATIVE IN CONGRESS FROM THE COMMONWEALTH OF VIRGINIA**

The CHAIRMAN. Thank you, Mr. Chairman. I want to thank you for holding this hearing.

It is often said—and I don't believe there is a member of this committee that would disagree—farmers are the original environmentalists, unlike some who rally to the environmental banner for political reasons. For farmers and ranchers, stewardship of the land is critical to their lives and livelihoods. It is distressing to me

that this basic fact is not more widely acknowledged by those that consider themselves environmentalists.

For nearly 7 years prior to taking over as chairman of the Committee on Agriculture, I had the honor of serving as the chairman of the subcommittee that oversaw EPA's pesticide program. From that vantage point, I can attest to Chairman Lucas' comments about the current positive working relationship with the EPA. While some recent decisions are troubling, and I would second the comments of the chairman, I think it is important to recognize when the Agency makes an effort to reach out to the agricultural community.

In some cases, even when these outreach efforts are made, the final decisions are not good news for agriculture. When decisions are made based on a fair and impartial analysis of the best available data, we may not like the outcome, but we can surely respect it. Unfortunately, not all of EPA's decisions follow this model.

Chairman Lucas referred to three recent decisions I am sure we will talk about at great length today. I am particularly disappointed in EPA's decision to remove the proposed agriculture and mining exemptions from the final air quality standards regulation. Throughout the process, we were told that the data were, at best, inconclusive regarding the potential health effects of coarse particulate matter in rural communities.

The EPA briefing material on the final regulation continues to make this point. This is why EPA originally intended to exempt agriculture and mining sources from the standard. After all, if the data is inconclusive about a health effect, then surely any measurement of the regulatory benefit will be completely arbitrary. What is not arbitrary, however, is the compliance cost this standard will impose.

I am reminded about some of the requirements proposed in 1997 before the last air quality regulation was struck down by the courts. At the time, the EPA had developed guidance materials that would have instructed farmers to wash all of their trucks and tractors before leaving a field in order to reduce fugitive dust. As ludicrous as these guidelines sound, I am not sure the EPA has any better ideas, nearly 10 years later, of how farmers will meet this standard.

In the absence of health data to justify compliance with a nearly impossible standard, I am loathe to accept or understand the rationale for this action. I hope the EPA representatives here today will have a good explanation for their actions.

Mr. Chairman, I again thank you for holding this hearing, and I look forward to the testimony of the witnesses.

Mr. LUCAS. Thank you, Mr. Chairman.

And the Chair would request that other members submit their opening statements for the record so witnesses may begin their testimony to ensure we have ample time for questions.

We are pleased to invite to our first panel at the table the Honorable James B. Gulliford, Assistant Administrator, Office of Prevention, Pesticides and Toxic Substances, U.S. Environmental Protection Agency. Accompanying him today is Mr. William Wehrum, Acting Assistant Administrator, Office of Air, U.S. Environmental Protection Agency.

Mr. Gulliford, please begin.

**STATEMENT OF JAMES B. GULLIFORD, ASSISTANT ADMINISTRATOR, OFFICE OF PREVENTION, PESTICIDES, AND TOXIC SUBSTANCES, ACCOMPANIED BY WILLIAM WEHRUM, ACTING ASSISTANT ADMINISTRATOR, OFFICE OF AIR AND RADIATION, U.S. ENVIRONMENTAL PROTECTION AGENCY**

Mr. GULLIFORD. Good morning. Thank you, Mr. Chairman, members of the subcommittee; thank you for the opportunity to appear before you today to discuss the Environmental Protection Agency's efforts to harmonize pesticide labeling between the U.S. and Canada, as well as our activities to meet our statutory requirements to protect human health and the environment from the potential risks of pesticide use. I assure you that the Agency is committed to working with Congress, our NAFTA, State and Federal regulatory partners and stakeholders on these important issues.

I would like to begin my testimony with the issues of pesticide label harmonization with our Canadian regulatory partners. Under the NAFTA Technical Working Group on Pesticides, we have harmonized our regulatory and scientific requirements and jointly registered needed pesticide products.

We now routinely collaborate with our Canadian counterparts to share data and conduct joint technical reviews of information to share the workload. With this cooperation, we are able to increase the efficiencies and jointly evaluate pesticides while maintaining our rigorous health and safety standards to help improve the availability of pesticides in the border States.

The NAFTA countries have a stakeholder process that is under way with the States, Canadian officials, the pesticide industry, and growers to develop and implement NAFTA labels to facilitate cross-border movement of pesticides. The working group has agreed on a short-term strategy which involves the relabeling of existing Canadian pesticide products for import by U.S. growers. A case study of this process has already proven successful, and over the next several weeks, growers are going to test this process and import the pilot chemical. From all indications, we believe the process will be successful.

Also, U.S. growers have consolidated and prioritized a list of chemicals that they would like to have access from across the border. That list will form the basis for selecting chemicals for a relabeling import program for the spring of 2007. To get this process under way, several registrants have thus far offered to participate in the import program for five pesticides.

We expect more registrants will volunteer for the program once they have had an opportunity to analyze the case study. The long-term strategy focuses, though, on developing joint NAFTA labels for use in both the U.S. and Canada that will be a part of the product packaging that will facilitate free movement across the border. We are currently working with Canada and the pesticide registrants to finalize one of these NAFTA-type labels. Three pesticides have been identified for this project and another one is possible.

The United States and Canada are also in discussions on new joint mechanisms for review of label amendments to these NAFTA

labels. We believe the efforts highlighted here show great promise toward achieving a non-legislative solution to the concerns raised by a number of members of this committee. The Agency will be glad to keep the committee informed as this work proceeds.

I would now like to discuss the Pesticide Registration Improvement Act, known as PRIA.

PRIA created a performance-based system to improve results by coupling fees paid by pesticide manufacturers with specific pesticide registration decision time frames, and it reauthorized maintenance fees, which provide \$116 million over a 5-year period for reviewing older pesticides.

Through collaboration with all stakeholders, we have taken several steps to improve the timeliness of our decisions and have encouraged innovative approaches to streamlined reviews without compromising the rigor of our assessment. And since 2004, the Agency has received applications for nearly 3,900 PRIA actions, and for those actions, we have successfully met or beat the deadlines 99.8 percent of the time.

EPA will continue to work with all stakeholders to implement PRIA, as well as provide technical assistance on any new or improved fee legislation for pesticide activities at EPA. Our goal is to ensure that we have stable and adequate funding for the pesticide review program.

And finally, I would like to briefly comment on FQPA. The Agency recently observed the tenth anniversary of the enactment of the Food Quality Protection Act and its mandate to reregister food use pesticides and reassess the tolerances for these pesticides within a decade. I am proud to report we have completed reregistration for virtually all of the food use pesticides and tolerance reassessments for more than 99 percent of those existing tolerances.

This program has significantly advanced food safety, public health, and environmental protection while maintaining our Nation's economic competitiveness by assuring that growers have the pesticide tools they need to produce a safe, abundant, and affordable food supply. And in the last 10 years, EPA has registered 250 new pesticide active ingredients and 1,600 new uses for existing pesticides; and this effort has allowed America to shift to a newer, safer generation of pesticides.

The United States continues to set the bar for pesticide safety and we have raised that bar through our work under FQPA.

So, in summary, we will continue to work to harmonize the availability of pesticide products between the U.S. and Canada through the NAFTA Pesticide Working Group, we will continue to meet the deadlines set by PRIA, and we will continue to set the bar for pesticide safety.

Thank you, Mr. Chairman.

[The prepared statement of Mr. Gulliford appears at the conclusion of the hearing.]

Mr. LUCAS. Thank you.

One of the things that my constituents have brought to my attention pretty consistently recently are the concerns about carbofuran and AZM. The point they make to me is basically, if pesticides that have been on the markets for decades are now basically under threat of cancellation, like these, are the products now a greater



danger than they have been in the past or has EPA simply moved the goalpost?

That is a question that I get from my constituents. How do you respond to that?

Mr. GULLIFORD. First of all, the products themselves have not changed. Most formulations are the same as they always have been.

Clearly, under the registration review process, we have looked at additional data regarding the health effects, the environmental effects, associated with the use of these pesticides. We have also looked at alternative products, consistent with the requirements of the Food Quality Protection Act to register safer pesticides that meet these same needs. So, yes, the bar has changed, that is, as consistent with the statute of the Food Quality Protection Act itself; and also the information that we have, better information again on the nature of these pesticides, the risks associated with them, but also the benefits that are provided by other new-use or new-generation pesticides that are available.

Mr. LUCAS. Well, tell me about these EPA models that we use to assess the ecological exposure and risk. How are they validated? How do you determine that they are the legitimate models that should be used?

Mr. GULLIFORD. Sure. These models have been produced over time. They have been peer reviewed. They have been sent to science advisory panels for their examination. They clearly are the best models that exist for the evaluation of pesticide risks.

What we use is, then, the data that are given to us by the registrants, by the applicants for registrations. They are put into these models to test them. And, in fact, these models were made available to industry for their consideration and development of new products. So they are excellent models; they are the best anywhere in the world. We continually update them every time we have new data because, again, we take every opportunity to test the models against real-world situations.

Mr. LUCAS. A question for you, Mr. Wehrum: What role do you think that the Natural Resource Conservation practices can or should play in meeting the expectations of the Agency and minimizing the particulate matter emissions?

Mr. WEHRUM. Thank you, Mr. Chairman, and I will start by offering my thanks and appreciation for the opportunity to be here today.

We made a very, very important decision, as you well know, last week in our review of the particulate matter standards with regards to coarse PM. I realize that many on this committee have great concern; and I certainly appreciate the opportunity to explain better what we have done and to explain how we have tried, and I believe tried successfully, to address the concerns of the agriculture community.

With regard to best management practices from USDA and the Soil Conservation Service, we realize there is a great opportunity to rely on those practices not only for the purposes of USDA, but also for our purposes which are, in appropriate circumstances, to reduce or minimize the emissions of dust from an agricultural operations. We specifically address this issue in the preamble to the

final action that was taken last Thursday, and what we say is, those best management practices, we believe, satisfy the obligation—under the Clean Air Act—to have reasonably available control measures or best available control measures in areas where such measures are necessary.

It is important to point out that the vast majority of the agricultural operations of this country are in areas that meet the coarse particle standard that we decided to retain last week. So the concern and consideration of possible control measures is limited to very particular areas, or has been limited under application of the standard up until now; and our prediction and our strong sense is, it will continue to be limited to very particular areas where there are very difficult-to-resolve air quality problems with coarse particles.

Mr. LUCAS. And in those kinds of situations, I guess what you are saying is, I believe my constituents can turn to the NRCS for their help in establishing practices that would then potentially meet your requirements.

Mr. WEHRUM. That is correct, Mr. Chairman.

Mr. LUCAS. With that, I would like to turn to the ranking member, Mr. Holden.

Mr. HOLDEN. Thank you.

Mr. Gulliford, following up on the chairman's questions on models that are used, I understand that the EPA intends to cancel the use of AZM for fruits, such as apples and pears, and other crops. Since there aren't any other available alternatives, grower groups are anxious about these pending cancellations and EPA-relied-on studies that do not take into account rural real-world practices.

Can you elaborate on the process and model EPA uses for cancellation?

Mr. GULLIFORD. Sure, a couple of things. Thank you, Congressman.

AZM is a high-value product. It has high-value uses. It is a high-value pesticide for nut and fruit production. We have clearly looked at and determined there are alternatives out there. It is not a clear case that there are a drop in substitutes for AZM, but there are new products, both registered for use now on these commodities, on these fruit and nut products, as well as products under development that we think are very, very appropriate as alternatives and substitutes in different ways.

We have issued a proposed decision. We haven't issued a final decision. We have taken comments for over 60 days; we are reviewing those comments.

I took the opportunity to actually visit growers and registrants in Michigan and on the west coast to hear their issues, hear their concerns. We also visited with people concerned for the safety of workers in these orchards and nut tree areas, but also concerned for the environment. So it is a very difficult and challenging decision that we will make in the near future.

But our models look at the economics. They look at the importance of the actual products themselves as used in real-world situations, the availability of substitutes and alternatives; and they also look at the concerns and effects on worker protection, worker safety

issues and the environment and bring us to the proposal that was made and ultimately will bring us to a final decision on AZM.

Mr. HOLDEN. EPA does believe there are alternatives?

Mr. GULLIFORD. We believe there are alternatives.

Mr. LUCAS. Thank you.

The gentleman from Kansas, Mr. Moran.

Mr. MORAN. Thank you very much.

Mr. Gulliford, good to see you again. Thank you for being here. Because my time is limited, although pesticides is a very important issue, the one that is in my mind this morning is probably better directed towards Mr. Wehrum and, again, this particulate matter regulation.

We in Kansas, we in agriculture, we on this committee, at least listening to the comments made previously, are baffled by EPA's action. I think that it lacks common sense, your own words, that the EPA suggests that the health risks are inconclusive.

That seems to me to be a—that if you yourself determine that the health risks are inconclusive, the question is, why are you proceeding down this path? Why did you not follow the plan that you had intended, at least as I understand, that EPA intended to have an agricultural exemption?

I have heard your comments, and I very much appreciate you being here, Mr. Wehrum. Again, this was not the topic of this morning's hearing, but I know that you know that we all are very interested in hearing what the EPA has to say.

The idea that we are adopting regulations that you don't expect there to be any enforcement problems, it worries me that we set the stage for private entities and litigation; and even if we prevail in that litigation, it is a very expensive process. It allows for uncertainty.

In Kansas, we only have one monitoring station, and you indicate that generally we expect that we are and will remain in compliance. But that compliance, or that monitoring station, is in Topeka, a different environment than in places in western Kansas. And the current standard in which we operate was invalidated by a court decision; it has not been enforced.

I just think that you are headed down a new path, that despite your assurances, we have seen consequences of these kinds of EPA decisions; and almost without exception, these are the kinds of decisions that cause at least Americans in Kansas to shake their heads, wondering what is our government doing to us.

Mr. Wehrum, any comments or reassurances?

Mr. WEHRUM. Yes, Congressman. There is much that I can say. You covered a lot of territory in your question.

I think it is important, first, to point out that for coarse particles, that are called PM 10, under our regulations right now EPA has had a standard in place for just about 20 years that covers this type of pollution. That standard was in effect last Wednesday before we took action, and the decision of the Administrator was to retain that standard. And his judgment was that it was necessary to have that standard in place to protect the public health with an adequate margin of safety, which is his obligation under the Clean Air Act.

So the point I am making is, the decision, in essence, was to support the status quo, the status quo that has been out there for 20 years.

There seems to be a sense that EPA has taken a new and different, significant regulatory action that creates the specter and possibility of a wide range of possible regulations on agriculture operations and other operations where that possibility didn't exist before; and that is simply not true.

Our judgment and the administrator's judgment was that the standard was necessary to protect public health. But his judgment also was that we have to be very, very mindful of the potential impacts of these kinds of standards on all of the various sources and, in particular, sources like agriculture.

We full know that agricultural operations are very, very different than the type of operations we typically regulate in this Agency. We know a lot about power plants. We know a lot about refineries. We have very specific regulations that deal with the very specific issues that emissions from those types of operations create.

Agricultural operations are wholly different. We realize that, and we are very, very careful in the regulatory decision-making that we undertake to make sure that our decisions are carefully tailored to the issues as we understand them.

So not only did we support the status quo that has been there for 20 years and the status quo that, for the vast majority of agricultural operations, has resulted in no regulation for Clean Air Act purposes; not only did we support that status quo, in my mind, we made it better. We said many things in this preamble, beginning with the point that you made and others have made here today, that the decision on the science is that the science is inconclusive with regard to certain types of coarse particles. Conversely, it is clear under the science that certain types of coarse particles are harmful to human health when breathed in sufficient quantity.

So the decision that the administrator made is that composition matters when it comes to this type of pollution, and our effort and our continuing effort will be to tailor efforts of control only to those places where they are necessary and only to those types of sources that seem to create hazards to public health.

That is what we tried to do in the decision last week. That is what we are going to try to do in the upcoming years as designs continue to be made as to what steps may need to be taken to reduce this type of pollution in the areas where it seems to be a problem.

Mr. MORAN. Thank you, Mr. Chairman.

Mr. LUCAS. The Chair turns to the gentleman from North Carolina.

Mr. ETHERIDGE. Thank you.

Good morning, Mr. Gulliford. Thank you for being with us today.

I would like to talk about something that hasn't been a real heavy topic this morning, but it is something of substantial concern to our farmers in North Carolina who grow a lot of fruits and vegetables, which contribute a little over \$300 million to our State's economy.

The United States is allowed to continue production and have methyl bromide under the Montreal Protocol until an alternative is

developed. As you probably know, the Federal Government has probably spent something over \$150 million to develop such an alternative, with only very limited success to date. In fact, for many crops, really no alternatives, as far as I know, exist right now. The need for methyl bromide has really not diminished since we started the process, and I think that is reflected in the fact that growers have applied for a fairly consistent level of allocation of the product ever since the inception of the critical-use exemption process.

I would like to ask why EPA has unilaterally cut, as I understand it has, the amount of methyl bromide for U.S. farmers over the last few years. The Agency, I understand, has made cuts even greater than what was sought by international partners, even though the United States is not bound by those agreements as held by the Court of Appeals for the District of Columbia.

Could you shed some light on this for us? Help me understand a little better.

Mr. GULLIFORD. Thank you, Congressman. I would like to give you a little brief overview of the process that we do use.

Each year, the Agency works with the growers and develops a very critical assessment of the need for nominations to the Montreal Protocol for the continued use of methyl bromide. We do that based on what we believe to be sound science and economic analyses in terms of what those needs are. It is not an independent action by EPA; it is discussed very carefully with USDA, the Department of State, CEQ, and others. And this final decision is then, as you suggest, the amount of methyl bromide that we do nominate to the parties of the Montreal Protocol.

We at EPA continue to look at alternatives, as you have suggested, for methyl bromide. We are looking at iodomethane as one. We are going to look at that, its efficacy and its suitability.

Yet the next year, as we look at all soil fumigants and other products, it is a challenging action on our part to look at those quantities, the one that we believe is consistent again with our obligations to growers, but also our obligations to the Montreal Protocol.

Mr. ETHERIDGE. So if I understand your statement, you are saying that there are adequate amounts of it available for the specialty crop growers?

Mr. GULLIFORD. Our goal is to make sure that the critical—

Mr. ETHERIDGE. My question is, you are saying this is an adequate amount available for them or—

Mr. GULLIFORD. We believe that for critical uses there is an adequate amount available, yes. That is the purpose of the application that we then bring to the Protocol.

Mr. ETHERIDGE. How do you define "critical"?

Mr. GULLIFORD. Based on economic need and the availability of alternative products.

Mr. ETHERIDGE. Is that a joint decision? When you said you meet with the growers association, is that a joint decision or a decision EPA makes?

Mr. GULLIFORD. We get their input. We also meet, as I said, with the CEQ, Department of State, USDA, so it is a shared decision.

Mr. ETHERIDGE. Let me encourage you, if I may, sir. I realize this is something we are trying to move to something else, but

until we do, it is a critical issue, economic issue with our growers not only in North Carolina, but really, as you know, across the country; and until we can find an alternative, it is important that we help them out so that the economy can—

Mr. GULLIFORD. I do agree with you on that. It is a very important decision we make every year, and I appreciate the concern that you raise.

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

Mr. LUCAS. The Chair now turns to the gentleman from Nebraska.

Mr. OSBORNE. Thank you, Mr. Chairman. I would like to return to the subject of carbofuran, which was broached by the chairman earlier. And a number of us had a meeting yesterday. We met with Secretary Johanns, and there was a great deal of concern about this decision not to reregister this product; and let me restate, I guess, the arguments that we heard.

Apparently there is a product that has been under review for some time, and the thought that I heard expressed was that most of the studies, that this decision not to reregister were based upon, were 10–20 years old and that the industry had presented new data to EPA. EPA had rejected the studies, for some reason, would not consider them. So the industry is now asking for a 6-month extension whereby they might be able to provide new information to you. And in view of the fact this product has been used for 30 years, and it is used for corn, which is a huge crop in the United States, also potatoes and also cotton. I mean, this is a big deal.

So my question is, is it reasonable to give these people 6 months to present new data because their studies were apparently rejected out of hand.

Second, you mentioned that there are acceptable alternatives to carbofuran. I would like to know what those are.

And then an extraneous third question is, you mentioned the NAFTA label and you mentioned the United States and Canada. If you have a NAFTA label, would not Mexico also be involved, and other countries, because it seems like a lot of our concerns about pesticides have to do with being south of the border, not just north.

So it is kind of a broad question, but there is a great deal of heat being generated by this decision. And a number of people in Congress are very concerned, so I am simply carrying that concern for you today.

Mr. GULLIFORD. Thank you.

You have a number of questions that we are a part of the question that you asked. Yes, it is true that the Agency has completed its reregistration decision for the carbofuran and the decision was made to not reregister the pesticide. However, there is a 60-day comment period following that decision, and we are open to comments from the registrant, but I have not seen a request for a 6-month extension for new data.

I would, however, say that again there was nothing surprising about the FQPA process and we carefully looked at all of the studies and information available on carbofuran and all of the pesticides that went through the reregistration process. We didn't reject any studies out of hand. There would have been reasons either from an efficacy standpoint, from a technical standpoint.

Old studies can be good studies. There is nothing that says that an old study is not a valuable study. Again, there is a lot of data on carbofuran with respect to the environmental impact, the environmental issues associated with it, and all that was carefully taken into consideration.

We also met with the registrant on numerous occasions. We are very much open to seek comments as consistent with the 60-day comment period that does exist. And, again, there are a number of alternatives to carbofuran.

The concerns for corn rootworm can be addressed through pesticide pretreatment of seeds, or pesticide application at the time of planting. And a number of those products I would be happy to get you information on those alternative products. I think that is the best action that I could suggest now.

With respect to the NAFTA question, most of our work has been work with Canada because there are a lot of shared pesticide uses and concerns from, again, northern State producers as to the availability of pesticides and the interest in accessing pesticides across the border.

But you are correct, the NAFTA label would also be applicable to all of the North American countries, Mexico as well.

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

Mr. LUCAS. The Chair turns to the gentleman from the Dakotas.

Mr. POMEROY. I do thank you for allowing me to participate in this hearing. I want to congratulate you for your very timely convening of this hearing. Clearly, we have a lot to talk about.

Referring to EPA's testimony on page 2, frankly, what I am reading doesn't square with what I am seeing in reality. Let me just cite:

EPA has been working closely with Canada to address pesticide issues, including those under the NAFTA provisions. The Working Group's primary objective is to facilitate cost effective pesticide regulation and trade through harmonization and work sharing while at the same time ensuring protection of human health and the environment.

You go on to say,

EPA's work on pesticide harmonization with Canada, which began in earnest in 1993, is providing benefits directly to the American farmer. In the long term, the creation and ongoing support of greater harmonization of North American regulatory and scientific requirements for pesticides will ensure a more level playing field across borders while maintaining our high standards of protection.

Is there cross-border selling of pesticides under harmonized labeling between the United States and Canada presently?

Mr. GULLIFORD. As indicated, we have worked with the NAFTA Working Group, on pesticide harmonization. And, yes, we have a case study now that has been done for the individual purchase of one pesticide over the last—

Mr. POMEROY. Wait a minute. You say you have been working at this since 1993 and you have got something that is really paying a benefit to the American farmer, and now you tell me you have got a Working Group project that has got a single pesticide.

In your own testimony, you say that you have got—you hope to maybe—looking at voluntary compliance by registrants for maybe five chemicals on the list, you are looking at a pilot program for

next year. Registrants have thus far volunteered three chemicals for development of a joint label.

Thirteen years, and you have got one pesticide? That is completely unacceptable. What is more, it makes a lie of your own testimony. How can you possibly say that you have been doing all of this work? Your goal is to harmonize and we have got one single product?

Mr. GULLIFORD. Congressman, the initial work that was done, starting in 1993, dealt with the protocols for pesticide assessments; that was something that both industry in Canada and the U.S. were very interested in. We worked on the data requirements, how the studies would be done. We shared models. We looked at data.

Mr. POMEROY. All this is well and good, but the farmer can't go to Canada and buy a pesticide that is sold in Canada for the same purpose that it is registered in the United States, bring it back down, if the price is advantageous to him, and use it in the United States, can he?

Mr. GULLIFORD. We are working with that to allow that to happen.

Mr. POMEROY. Until that happens, it is not clear to me that you have provided much of a benefit for the American farmer.

We are going to hear testimony later this morning on how Canada, unlike the United States, has allowed an individual use certificate in those cases where there are identical formularies; and that very substantial savings result, in Saskatchewan alone, in light of price point.

Now, more often than not, the price point would flow to the advantage of American farmers because I absolutely believe chemical companies have used the registration issue to price segment. In fact, a hearing that we held in this committee 6 years ago brought us testimony to that effect. They are imposing higher prices on American farmers than they will charge Canadian farmers because they determined the market will bear more and will contribute to the bottom line more.

How are we going to get any headway if this depends upon the registrants, that being the chemical company, wanting this to happen? Is it your view at EPA that this shall happen if, and only if, the chemical company wants it to happen; or do you believe that if it is a product that has similar use approved in Canada, approved in the United States, that in the end, harmonization ought to flow and the farmer ought to have the choice irrespective of the registrant's view?

Mr. GULLIFORD. Well, I believe that the way the situation exists right now, it does require the registrant's interest in making that happen.

Mr. POMEROY. Is that a good idea?

Mr. GULLIFORD. That is the authority that we have to work under right now. We are seeing interest on the part of registrants.

Mr. POMEROY. Look, the registrants, we have got a few good ones, and I am pleased with the cooperation that we have been shown. I will say, it is very late and there are notable companies—and I am just so tempted to name them, but I will forbear for the time being—that have done nothing in terms of bringing this forward.



And why should they? They are price-gouging American farmers, so the last thing they want is to allow the American farmer to go up and get the cheaper product in Canada. So I think that relying on the registrant is the wrong thing to do.

You are suggesting we need to statutorily change that? I believe that there is regulatory authority to that effect.

Mr. GULLIFORD. I am not suggesting that.

What I am suggesting is that it appears that there is a path forward working with the Canadian Government, the registrants, the Working Group that exists, to make that happen. We are seeing registrants agreeing to that, and we think that there is an opportunity to achieve the objectives of harmonization through this voluntary process.

Mr. POMEROY. In 13 years you have got three products under supervision of the many, many products out there.

I am not seeing this work at all in that way; and I would like to see EPA begin to, in addition to the pilot project—notably and positively its being last developed—look at whether we really ought to reflect on whether this should determine, ultimately—whether the chemical company says “yes” or “no,” harmonization shall occur.

I believe that is the fault in the whole system and needs very serious examination. I would, in fact, like the EPA to write to me a letter, because I am out of time now, with your thoughts on whether or not this should depend upon—whether or not it is good public policy to have this relying solely upon the chemical company and in terms of a harmonized label should go forward.

Mr. GULLIFORD. We will respond to you and the committee in that regard.

Mr. LUCAS. The gentleman’s time has expired.

The Chair now turns to the gentleman from Michigan.

Mr. SCHWARZ. Mr. Gulliford, you indicated you had gone to Michigan to look at some of the—I expect the fruit farming in southwest Michigan; is that correct?

Mr. GULLIFORD. Yes, sir.

Mr. SCHWARZ. Where were you in Michigan?

Mr. GULLIFORD. Started in Flint and went across the south central portion of the State, but we also then met with—again, to our benefit, the cherry growers came down to us and met with us. And yesterday I was on a conference call, and my staff were, with blueberry growers as well.

Mr. SCHWARZ. Thank you. I wondered where you were. That is not what I want to talk about. Just a couple of things I would like to ask you about.

One is methyl bromide. I understand the Montreal Protocol and what it said. This is an awfully simple compound which—there is not much in the literature, unless you are looking at different literature than I am, that indicates any human or animal toxicity; and there is some question about the studies that indicate that methyl bromide does the harm that it was first thought to do, or any harm to the ozone layer.

I understand we are a signatory to the Protocol. But I also understand that the alternatives as a fumigant that is used against fungi, nematodes, are a lot more expensive than methyl bromide.

So my question would be, in the interest of cost effectiveness, why we are not doing more to perhaps try to extricate ourselves, at least partially, from our obligations under the Montreal Protocol so that agriculture can use methyl bromide in greater volumes than it is now, in volumes that it was used before.

It was introduced over 70 years ago and there is no real evidence that there is any kind of a health hazard for humans or animals or there is any runoff because of the gas. Can you just tell me what your thinking on methyl bromide is?

Mr. GULLIFORD. Well, you are right. Again, the concern is for air quality and the implications that the release of the fumigant has on ozone.

We know it is a very valuable product and that is part of what goes into the consideration of the approach for exemptions, the application for exemption that we take to the Montreal Protocol each year. So that is what the science tells us, and that is the basis for our decisions.

Mr. SCHWARZ. And the reason I ask that is, if you look at some of the other pesticides that are now being used with all of the different chemical radicals in them, we know that they do pose some human health threats.

I was just looking at the—I asked for them to bring me the chemical formula of AZM, and the fact that it is a kinase inhibitor; and you know, I would agree that is a compound that, if ingested in an appropriate amount, you have got a big problem on your hands.

And so just posing that against good old methyl bromide, where there is literally no danger to humans, one wonders why we are not doing more to use the simpler and cheaper and time-tested products such as methyl bromide.

I will leave it at that. I know what your responsibilities are there, but from the standpoint of someone who represents, at least for a short time, a very heavily agricultural district—as I am sure as you are, probably—in my district one wonders why methyl bromide is so bad, when you have things that are ten times as bad that are still being used out there—in smaller volumes, I will admit.

My second question—very quickly, if I may, Mr. Chairman—would you define fugitive dust for me?

Mr. WEHRUM. Congressman, I think that one is in my bailiwick.

Mr. SCHWARZ. Whoever.

Mr. WEHRUM. And I would be happy to elaborate on your methyl bromide question if that is your interest. And if not—

Mr. SCHWARZ. The chairman is going to give you the hook here in about 2 seconds.

Mr. WEHRUM. “Fugitive” is a term of art that has been coined to distinguish between stuff that comes out of stacks and stuff that doesn’t come out of stacks. Stuff that comes out of stacks we call point sources.

It is very clear to us and, I think, just a matter of common sense that harmful amounts of air pollution can be generated by stuff that doesn’t come out of stacks. And so “fugitive” is just the word that we use to describe that.

Mr. SCHWARZ. Are there any good statistics, any good studies out there indicating that fugitive dust, as you define it, can cause—in concentrations that you would get in an agricultural field being kicked up by cattle, or kicked up by the tires on a truck or that sort of thing, can cause pulmonary disease if inhaled?

Mr. WEHRUM. Congressman, as many have pointed out to me during the hearing today, and as we believe is true, the scientific evidence is inconclusive as to potential threat to public health from certain types of these coarse particles that we have been talking about today.

And as I said earlier, the way I describe it, it is composition matters. What the stuff is made of seems, under the science and certainly as a matter of common sense, to make a difference in terms of how hazardous it is to people.

So what the science seems to show is that stuff that is not potentially contaminated by industrial activities and human activities—and we have coined the term “urban”; it is a poor choice of words, but certainly urban environments are a good example because of automobiles and trucks and industry and all of the things that happen in the city.

Mr. SCHWARZ. You would admit there is a difference.

Fifteen seconds, Mr. Chairman.

Mr. LUCAS. Fifteen seconds on this question.

Mr. SCHWARZ. Between urban fugitive dust and agricultural fugitive dust, urban fugitive dust if you drive through Gary, Indiana, I know what you are talking about.

Mr. WEHRUM. Yes, Congressman.

Mr. SCHWARZ. You get my drift here?

Mr. WEHRUM. Yes.

Mr. SCHWARZ. One wonders if we are not dealing in a little bit of overkill on the agriculture side.

Mr. WEHRUM. Congressman, I fully understand the concern, and as our administrator says, we don't want to be in the business of regulating dirt. And our scientific conclusion—and we go on at great length using all the right words in the preamble, but our scientific conclusion is, composition matters and the kind of dust that doesn't seem to be of as great concern is the kind of dust that typically comes to rural areas, what we call “crustal,” which is dirt, dust that comes from natural origin that is not likely to have been contaminated by human activity.

Our scientific conclusion and what we say in this rule is, there is a lesser concern for those kind of particles than the other stuff I talked about.

Mr. SCHWARZ. I will take as a point gleaned from this that composition does matter, and if dust has asbestos particles in it or something of that nature, it could be a danger. But I am not certain that something that is picked up by the farmer at Hullihan's field has the same danger.

Thank you both.

Mr. LUCAS. The gentleman's time has expired.

The gentleman now turns to the chairman of the full committee.

The CHAIRMAN. Thank you.

Mr. Gulliford or Mr. Wehrum, when you are writing these regulations regarding this particulate matter, do you have any obliga-

tion to take into account cost-benefit analysis and what the consequences are to not granting an agricultural and mining exemption out in remote rural areas, where the cost of compliance to regulations that might come forward would be far outreaching any modest benefit that might be achieved for farmers or people living near farms.

Mr. WEHRUM. Mr. Chairman, the short and simple answer is “no.”

The CHAIRMAN. Well, that is a shortcoming of the law and maybe something that Congress ought to address as well. But it is certainly something that should be weighed in the balance.

It would appear that the Agency has a lot of regulatory discretion in setting air quality standards. One example of that discretion is setting separate standards for “coarse” by a particulate matter. Done that.

If an exemption for agricultural mining was out of the question, why didn’t the Agency exercise its discretion and establish a separate and attainable daily standard for fugitive dust and other coarse particulate matter in rural areas?

Mr. WEHRUM. Mr. Chairman, I will answer that in two ways. We do have discretion under the law as to how we structure our ambient air quality standards. There is no doubt about that. I have said several times now that composition matters, and we believe there is no doubt about that as well.

The question is how best to design a standard that reflects the differences and effects on human health from the different types of particles that you see across the country. That was the great challenge to us in doing this standard.

We proposed a particular approach in December of last year and we tried very hard to make it work, but our ultimate conclusion is, we simply could not make that work. That was not an approach that was well enough tailored to the differences and the effects that we see to get the right outcome and to give us confidence that we could defend that standard in the inevitable challenge that is going to incur.

The CHAIRMAN. I think that should have been the best signal to you that you should have granted the exemption for farms.

Mr. WEHRUM. Mr. Chairman, the second part of my answer is our conclusion to keep the PM 10 standard, the daily standard that has been in place for almost 20 years, was based in part on the desire to have varying levels of protection across the country. We believe that in rural areas there should be lesser concerns and there should be greater latitude under the standard; and conversely, in quote-unquote “urban areas,” we should have greater concern because, as I explained a moment ago, those seem to be the areas where we would expect particles to be contaminated by stuff.

The CHAIRMAN. Your actions seem to contradict your words. The EPA has stated—the Agency has stated that it is requiring the States to expand the number of rural monitoring sites; and I would like to know what provisions you have made to ensure that State and local regulators focus on urban and industrial sources of coarse particulate matter that are of real concern, rather than rural sources from agriculture and mining.

Mr. WEHRUM. Mr. Chairman, that is a great question and a great issue. And we have done two things in the monitoring part of this regulation that I think are very important and will help, and certainly help the next time decisions have to be made. As you know, under the law, we have to do this every 5 years.

One thing we have said is, as—well, we have done three things. One is, we think there are too many monitors out there and some of the monitors are in the wrong places.

The CHAIRMAN. Why don't you have some more?

Mr. WEHRUM. I will get to that in a moment.

Part of what we said is, we ought to rationalize our monitoring network and we ought to focus our resources in the places we care about the most. So we emphasize the need and the desire to put more PM monitors in the urban areas because that is where we believe the greatest concern is.

The second thing we have done is, we have asked for more monitors to be placed, and some of those monitors in rural areas, but these are monitors that are designed to look specifically at the coarse—the sizes of coarse particles we care about the most. And they will be designed to allow us to speciate—that means, do chemical analysis—so we know what the composition is.

Those are monitors that are going to be enormously helpful in doing further research, doing further science; and our goal and our strong desire is to have much better information the next time this decision has to be made. If we think what is true right now turns out to be true, based on that information, then the Agency will be able to act in a definitive manner, as we did in other aspects of this rule.

For instance, we rescinded the annual coarse particle standard that also had been in place for almost 20 years, and we rescinded that standard in this action based on determination that the scientific evidence does not support any concern with exposure to these coarse particles, with any significant threat to human health.

The CHAIRMAN. If you don't have a plan for what you are going to do no matter what you discover while it is out there, I will just conclude that dust happens, and it is going to happen a lot on farms just because of the nature of providing a food source for the American people, and to continue this stepped-up, what I would call, "harassment" of farmers by essentially gathering more and more information about something for which you have no solution. I mean, the last time this came up, some of the solutions were washing trucks and tractors as they left farmers' fields and other things that are just absolutely impossible to comply with. Unless you have some idea what you are going to do with this, I don't see the point of gathering the information when you already know that farms kick up a lot of dust.

Mr. Chairman, if I might, I would like to ask one question of Mr. Gulliford.

Mr. LUCAS. Of course.

The CHAIRMAN. To change the subject here, regarding the newly constituted Human Studies Review Board, there appears to be duplication between the HSRB and the Scientific Advisory Panel, and I wonder if you could explain the respective roles of those two

boards and how you ensure that there is no overlap in their mission and activity.

Mr. GULLIFORD. Yes. Thank you, Mr. Chairman.

They are two distinct boards, and they do perform different functions on behalf of the agency. The Science Advisory Panel looks at the technical scientific issues associated with pesticide review, pesticide decisions that are made, how we do our risk analyses, these types of activities, so they deal with those technical issues.

The Human Studies Board looks at the ethical issues associated with whether or not the agency should consider human studies in its decision-making with respect to pesticide registrations. So they are very distinct, and our goal is to continue to work to better define the roles and functions in such a way that assures there is no overlap on the part of those two boards.

The CHAIRMAN. Thank you.

Thank you, Mr. Chairman.

Mr. LUCAS. Thank you, and the Chair wishes to thank the panel for your insights, and you are now dismissed, gentlemen, and we invite our next panel to the table, and for the introduction of the first witness on the second panel, when it is appropriate, the Chair would like to turn to the gentleman from North Dakota, Mr. Pomeroy, to introduce the first of our two witnesses on the second panel.

Mr. POMEROY. I want to thank you very much for allowing me to introduce a constituent of whom I am very proud. Jim Gray has, for many years, worked for the North Dakota Department of Agriculture, headed up the portion of control looking at the registration activities and the regulatory responsibilities of the Department. He has been someone that has been a real leader in terms of evaluating the implementation of the NAFTA principles, both by the EPA and the adoption of it by the industry. He played a principal role 6 years ago in expanding what appeared to be a legal opportunity relative to an import of a pesticide named Achieve.

The State Agriculture Department's role at that time resulted in a savings to farmers of tens of thousands of dollars and, in fact, in some instances, thousands of dollars per farmer in allowing the accessing of the cheaper product for identical use south of the border as opposed to north of the border. So I do not suppose there is a person in the country who knows more about this business of pesticide harmonization so particularly important on the northern border but even beyond that because I believe, if the market truly is harmonized, we are going to see a price competition in the pricing of farm chemicals far beyond what we have ever seen, and it is to the benefit of all of our constituents. So it is my pleasure to introduce Jim Gray.

Mr. LUCAS. Thank you, Mr. Pomeroy, and joining him today is Jay Vroom, president and CEO of CropLife America here in Washington, DC, and with that, Mr. Gray, please begin when you are ready.

**STATEMENT OF JIM GRAY, PESTICIDE REGISTRATION COORDINATOR, NORTH DAKOTA DEPARTMENT OF AGRICULTURE, ON BEHALF OF ROGER JOHNSON, AGRICULTURE COMMISSIONER**

Mr. GRAY. I thank you, Mr. Chairman.

My name is Jim Gray. I am the pesticide registration coordinator with the North Dakota Department of Agriculture, and I am here today on behalf of North Dakota Agriculture Commissioner Roger Johnson. I work with the EPA's Office of Pesticide Programs frequently on pesticide registration as well as pesticide regulatory issues, especially staff from the EPA's Registration Division.

I have the highest regard for the work that EPA does in regulating pesticides, and the EPA's pesticide regulatory programs are widely considered to be the most rigorous in the world, usually setting the standard of how pesticides are truly evaluated for their effects on health and safety.

I would like to especially call the subcommittee's focus on the work that EPA does on the issue of North American pesticide harmonization as part of the Agency's participation in the NAFTA Technical Working Group. The Technical Working Group contains pesticide regulatory staff from the EPA as well as their counterpart agencies in Canada and as well as in Mexico.

Now, the actual term "harmonization" means different things to different people, but I think that we can't truly claim that we are harmonized until we can meet four different criteria. The first is to create a system that allows for the free trade in pesticide trade commodities across North America, and the second is to create a system that allows for the free trade in the actual pesticides, themselves. The third criteria is to create a system that allows for the equal access to pesticide uses so that growers in one country have access to the same pest management tools as their counterparts, and the fourth is regulatory harmonization so the registrants can obtain pesticide registrations with similar data along similar timelines. The EPA works with these other agencies and the Technical Working Group on all four of these areas.

Now "harmonization" is a high-priority area. It is a major issue in northern border States like North Dakota especially as it pertains to creating a North American pesticide market. Barriers currently exist in Federal law and regulations that prevent U.S. farmers from importing and using lower-priced Canadian pesticides without the consent of the registrar even if the Canadian product is identical to one registered for use in the United States.

The system of artificially segmented markets has resulted in significant pesticide price disparities and significant economic impacts to U.S. farmers. A recent study from North Dakota State University indicated that U.S. farmers could save \$178 million per year if they could access their pest management tools at prices available north of the border, and these price disparities go both ways. A lot of Canadian growers are also upset by those products that are more expensive in Canada than in the United States.

Now, at the NAFTA Technical Working Group stakeholders' meeting less than a year ago, growers from the U.S. and Canada strongly requested that the Technical Working Group form a sub team to specifically look at creating a North American market for

pesticides. The Working Group agreed to that request, and has formed a sub team that contains staff from the U.S. EPA and Canada's PMRA, registrants and growers from both the U.S. and Canada. I am also a member of that sub team.

I am happy to say this sub team has made pretty good progress in the last year. We are looking at both long-term and short-term solutions to allow for the transport or movement of the pesticides. On the long-term front, we are looking at the use of NAFTA labeling as a means to desegment those markets, and although we are using the term "NAFTA labeling," we are at the present time focused solely on joint U.S.-Canadian labeling. We are at the present time looking at various formats, but I am more confident than ever that NAFTA labeling is doable from a regulatory point of view. We are also looking at a short-term home strategy that would mimic the Own Use Import process that is currently available to growers in Canada to import lower priced U.S. products, and we have a pilot for that project, for that short-term strategy, and we should see products moving across the border using that short-term strategy in the near future.

As soon as we have eliminated all of the regulatory barriers to NAFTA labeling, the next step is to look at strategies that will allow for the widespread use of that NAFTA labeling, and at least to date, registrant participation in the subgroup has been positive, and we are looking at creating solutions that will benefit all stakeholders.

However, we may very well be back in front of the U.S. Congress to discuss statutory changes needed for the widespread adoption and use of NAFTA labeling. This may be the actual creation of real world incentives to registrants for use of NAFTA labeling or we may have to look at a requirement for the use of NAFTA labeling if the identical formulation is available in both countries. I am hopeful that we can find a win-win solution that will result in the widespread adoption and use of NAFTA labeling in the near future, and to their credit, some registrants have joined the process, realizing that the time has come to desegment the U.S. and the Canadian markets and allow for the cross-border movement of products.

On behalf of the North Dakota Agriculture Commission, I would like to thank those registrants who have been working with us to create both short-term and long-term strategies, and finally, I would once again like to thank the EPA for its leadership on this issue and in helping keep stakeholders focused on resolving barriers to the use of NAFTA labeling.

Thank you.

[The prepared statement of Mr. Gray appears at the conclusion of the hearing.]

Mr. LUCAS. Thank you, Mr. Gray.

Mr. Vroom, whenever you are ready.

**STATEMENT OF JAY VROOM, PRESIDENT AND CEO, CROPLIFE AMERICA**

Mr. VROOM. Thank you, Mr. Chairman, and good morning.

My name is Jay Vroom, and I am CEO of CropLife America, the trade association for the agricultural chemicals, manufacturers and distributors in the U.S.A. I want to thank you, Mr. Chairman, and



members of the subcommittee for convening this oversight hearing on topics of pesticide regulation.

There, indeed, are a myriad of key issues that merit the ongoing attention of the committee, and we appreciate not only this hearing but the nearly daily focus on all of these issues that is evident on the work of the committee staff and many of you, the Members, who care about keeping safe and effective pesticide products available as vital tools used by American farmers and a wide variety of other essential pesticide applications, including public health protections, structural pest control, vegetation management for road and utility rights-of-way, just to name a few.

In our written testimony, we mentioned 11 top pesticide issues, including five key benefit areas. The six regulatory issues that we highlighted included international regulatory harmonization, the FQPA-tenured anniversary, PRIA, the Endangered Species Act, Clean Water, nonpoint source concerns, and any clinical trial data.

Also worth a mention but not in our written testimony is we need to get EPA regulatory requirement for empty pesticide plastic containers for recycling. This stewardship matter has been led by CLA members for over 15 years with a voluntary program called the Agriculture Container Recycling Corporation that collects and recycles these containers effectively, but in order to get full industry support of this ongoing effort, we will need EPA requirements.

The House appropriations bill for EPA funding for fiscal year 2007 has language instructing the EPA to quickly address this regulatory need. We support that language and look forward to working with the Agency to complete this new initiative to broaden the collection of recycling of this important plastic and make this stewardship a fair proposition for all of our companies.

Also worth mentioning is the need to get the PIC and POPs enabling legislation and ratification done in this Congress, and we hope that the work that you have done in this committee will see through to fruition.

I would like to spend a little more time this morning talking about international regulatory harmonization if I may. Indeed, there are big differences still out here, and many of you have already touched on this, and I certainly respect the positions that Congressman Pomeroy has already articulated and Mr. Gray has discussed and addressed about the need to continue to make better real progress.

Over 18 years' worth of U.S.-Canada regulatory harmonization and having the small handful of results that have been evidenced by EPA's testimony this morning is clearly not enough progress. There are big differences between the U.S. and Canada farming practices. Weather, crops, soil all vary widely. Two and now three of our member companies have decided to step forward, as Mr. Gray has indicated, for pilot initiatives around some Own Use product reimportation. We support this, but we also support the broader need for a NAFTA label option that will deliver real results.

There are substantial differences still in the way the two countries regulate our products. For instance, Canada requires submission and review of efficacy data while the U.S. EPA does not. The U.S. obviously has a mountain of Endangered Species Act coordina-

tion and compliance requirements to achieve here in the United States. Canada has nothing identical or even close to the same kind of thresholds to registration compliance.

It is clear that our marketplace is in transition, and I would offer that I had the experience of being invited by Senator Burns to come to a field meeting in Montana a year ago to talk with farmers about their concerns with regard to the agricultural economy and the cost and availability of inputs. I appeared there with representatives of the crop insurance industry, the fertilizer industry and energy suppliers. Not one farmer in that audience that I was before in Montana a year ago was concerned about or expressed concern about pesticide prices and availability at that time, and indeed, we know that our marketplace peaked in 1997 when U.S. pesticide sales for agricultural uses hit \$9 billion in 2006. We expect the U.S. market to be below \$6.5 billion. That is a \$2.5 billion decline on a \$9 billion base. Our industry is a shadow of what it was less than 10 years ago, and I would suggest that the farmer has seen a real benefit in terms of that competition already.

Lastly, Mr. Chairman, I would like the opportunity to come back, if during the question period there is time, to talk a little bit more about the Human Studies Review Board question that Chairman Goodlatte raised with Mr. Gulliford because I think there is a little more information that should be corrected for the record on that matter.

Thank you very much.

[The prepared statement of Mr. Vroom appears at the conclusion of the hearing.]

Mr. LUCAS. Thank you, Mr. Vroom.

Mr. Vroom, you indicated your support for reauthorization of the Pesticide Registration Improvement Act. Are you seeking a clean reauthorization or are there amendments under discussion and consideration that would be advocated?

Mr. VROOM. Thank you, Mr. Chairman.

We do believe that most of what is existing authority for pesticide fees and registration improvement in the PRIA context is exactly what is needed for reauthorization, but we have learned that there are a few minor changes that are appropriate. Our coalition of industry representatives are now meeting with the same representatives of the environmental community that all came together to support PRIA 2½, 3 years ago. We believe that we will have agreement between industry and the environmental community on a package that we will be ready to present for your consideration perhaps in a matter of days, but again, I do not think that what we are likely to propose will be substantive changes, and we look forward to working with you and the full committee on seeking an expeditious and an effective reauthorization to PRIA.

Mr. LUCAS. And you have my curiosity up. Expand on the human studies issue.

Mr. VROOM. Well, I think that Mr. Gulliford actually misstated the charge that the Agency has given to the Human Studies Review Board, and in his defense, all of this was crafted long before he came to Washington and accepted the current job that he currently serves in, and we adamantly disagreed with this proposal when it was a proposed rule establishing the Human Studies Re-

view Board by the Agency that its scope is, in rule, explicitly to not only look at and review the ethical considerations of human clinical trials for pesticide risk assessment but also the scientific validity. We said then and we still believe today that is duplication of effort that has already been accomplished and invested in by EPA staff and numerous other outside, independent stakeholder review boards, including the Science Advisory Panel and a number of Federal advisory committees that advise the Agency on scientific validity, and unfortunately, we have the first problem, in our view, around that duplication with the Human Studies Review Board having been charged at their last meeting at the end of June with reviewing agricultural handler exposure data from a task force that is made up of CropLife members, and because they were given 11,000 pages of information to review by this volunteer board of independent science and ethicists, they were not able, with the 2 weeks that they were given time to review this information, to make an adequate analysis of the ethics let alone the scientific aspects. The scientific aspects of the agricultural handlers' exposure data development were many, many years ago agreed to in terms of scientific validity by EPA and other advisory groups that provide outside, independent counsel to the Agency, and so we now have a potential crisis with regard to the consideration of millions of dollars' worth of data that the industry has generated and EPA has already used in other regulatory decisions to make judgments on the safety and efficacy of pesticide products.

So I think we do have a problem. It is one that I believe the Agency can correct, but there is duplication, and it is a problem that does need to be attended to and fixed.

Mr. LUCAS. Eleven thousand? 2 weeks to review?

Mr. VROOM. Correct.

Mr. LUCAS. The Chair now turns to the ranking member, Mr. Holden.

Mr. HOLDEN. Thank you, Mr. Chairman.

Mr. Vroom, what are some of the factors that contribute to pesticide prices in general and, more specifically, the difference in prices across borders?

Mr. VROOM. Well, first of all, I should remind the committee that, as a trade association, we are, first and foremost, very careful to comply with the antitrust statutes of the United States, and we collect no direct data with regard to sales and prices. However, there is much publicly available information that is out in the literature about markets and prices and product availability and demand.

So I would say that the biggest factors are the supply of available products and the demand that farmers create for those products, and one of the factors on the supply side has to do with the evolution of the marketplace as products have their patent protections expire, and that is the biggest driver in the decline of the total industry sales, as I indicated in my remarks, for our industry having gone from a \$9 billion peak in 1997 down to about \$6.5 billion this year. It is the fact that we have a lot of products that farmers rely on that have gone off of patent, and now there are many more generic alternative products competing for that same acre of treatment that the American farmer creates in the way of

demand by choosing his crop selections and making assessment on what kind of weed, insect and disease control that he or she may need.

With respect to what causes the differences along international borders, the fundamental fact is that our products are regulated by sovereign nations, and in the case that we are really most focused on here today, the United States and the Government of Canada are two separate sovereign nations, and they reserve the right to make their final regulatory decisions on what products are approved for use. There are a lot of similarities across the demand landscape for farmers on either side of the U.S.-Canada border, and there are a lot of similarities of product availability, but there are a lot of differences, some of which have been driven by some of the regulatory differences.

I believe, as Mr. Gray has indicated, that the NAFTA Technical Working Group has shown some early indications at their last meeting of making some real progress on helping further harmonize and get to more NAFTA-label kind of places where less of this kind of trade irritant kind of concern will be commonplace in the future, but I would agree with Mr. Pomeroy's comments earlier that the progress that we can show to date after 13, 15, 17 years is not adequate. We have had much, as an industry, the same kind of experience or frustration with the OECD harmonization process and had to get to the point of threatening to pull out our industry support of an OECD harmonization process for pesticide regulatory harmonization because we were seeing similar kinds of lack of real progress, just lots of meetings with lots of Government authorities going to many, many more meetings but no progress. So we do identify with the frustration, and we are in full support of the kind of progress that now seems to be evident in the NAFTA TWG.

Mr. HOLDEN. Thank you, Mr. Chairman.

Mr. LUCAS. The Chair now turns to the gentleman from Michigan, Dr. Schwarz.

Mr. SCHWARZ. I do not have a specific question, but I was amazed at the 9½ to 6½ figure, and if I can use an analogy, would you say this is like a pharmaceutical going off patent and a generic becoming available? It is essentially the same thing, is it not?

Mr. VROOM. Yes, that is exactly right. Yes. Right.

Mr. SCHWARZ. So the follow-up question to that is:

Pesticides are, in many instances in this day and age, pretty complex chemical compounds, in fact, very complex chemical compounds. Is your association confident that a secondary or a tertiary or quaternary manufacturer of this compound that could have been developed by Dow, as an example in my State of Michigan, or another nationally known or internationally known company—is the quality the same?

Mr. VROOM. There have been instances where generic products have been sold in the marketplace and contaminants and other manufacturing defects have been found to result in a lack of full efficacy, but I would say that the safeguards that are in FIFRA, which is the law that is in the jurisdiction of this subcommittee, provide a very good safety net for catching those kinds of problems early on, and those could be manufacturing defects from a generic as well as the original discoverer of the molecule, and the law does

not discriminate between the two, but we do have good quality control, chemistry standards, plenty of authority for EPA to regulate in this area, and lastly, we have got plenty of marketplace competition so that, when competitors watch each other, there is plenty of opportunity for that kind of discovery.

We have had some instances where a “me, too” registrant claimed that they had identicality of product and then sold product in the marketplace, and farmers suffered crop damage, and it turned out that this one secondary “me, too” manufacturer had committed fraud by claiming that they were actually sourcing their material from the originator of the product when in fact they bought one small unit and then sourced the rest from a generic supplier from Asia, so—

Mr. SCHWARZ. Mr. Vroom, who does the chemical analysis and assay routinely or when there is some question about efficacy? Is it somebody in the agriculture or chemistry departments in some of the universities like with North Dakota? Would you send something out to Grand Forks from Fargo to be analyzed or, in Michigan, we would send it off to East Lansing, to MSU.

Who does this or does the industry do it?

Mr. VROOM. Most of the expert chemistry, analytical capacity is in the independent contract laboratory community in the United States and around the world, in fact. Although there certainly is plenty of that kind of scientific capacity in most of the major universities, this kind of the mass spectrometer, gas chromatograph capacity is unbelievably widespread today, and so the capacity to do that at many universities is certainly there, but most of the time, because EPA also has authority to create and implement what is called “good laboratory practices standards” for pesticide chemistry, analytical laboratories, only a small handful of those laboratories are so certified and inspected regularly by EPA. So my guess is that there are not too many EPA pesticide, GLP-certified laboratories in universities around the country. They would be doing other kinds of research, more on the applied field research side.

Mr. SCHWARZ. Your level of confidence then is high?

Mr. VROOM. Yes.

Mr. SCHWARZ. Thank you.

I would just say, Mr. Gray, even though I am from Michigan, I am very familiar with your State because I have to drive across it a couple of times every year on that high line. I have a home in Montana. I love to see the great big fields of sunflowers and all the Durum wheat growing in North Dakota, and I am familiar with the pasta co-op. You still have North Dakota to make that good pasta from the good Durum wheat that you grow.

I yield back to the chairman.

Mr. LUCAS. And, on that note, we will turn to the gentleman from North Carolina.

Mr. ETHERIDGE. Thank you, Mr. Chairman.

Mr. Gray, you mentioned four criteria that we need to meet in order to have pesticide harmonization.

How far do you think we have gone in meeting those goals, and have there been issues since the passage of NAFTA that has created a problem?

Mr. GRAY. Congressman, yes. Let's talk about each of those four. The first one, creating free trade in the pesticide-traded commodities, the major barriers there are differences in what we call "maximum residue limits" or "food and feed tolerances" in the U.S., and when there are differences in those levels, that can create a trade irritant. The Technical Working Group has been working with growers that ask them to come forward with lists of differences in those MRLs that have caused trade irritants, and slowly but surely, we are getting through that list, and we are getting those differences and MRLs resolved.

The Technical Working Group has also agreed to a protocol for setting those maximum residue limits, so at least for new residue data, the three agencies should arrive at the same MRL for doing the exercise independently, but they should arrive at the same MRL, eliminating future trade irritants.

In terms of equal access to pesticide uses, again, the Technical Working Group has really looked to growers to come forward with lists of product uses that are not available in their country but in one of the other two NAFTA countries, and again, slowly but surely, those differences have been actually resolved.

On the regulatory realm, this has been the focus of the Technical Working Group for much of its lifespan. In that realm, it really depends upon who you ask. If one asks the EPA and PMRA and CICOPLAFEST, they will tell you that they have made huge strides, and in my opinion, I think that they have. Others may very well disagree with that, but it is my understanding that registrants can, in essence, prepare a similar data package and submit it for registration to all three of those countries, and they have done many, many joint reviews and work shares that have resulted in registrations being granted faster than if each country acted on their own.

As to one of those components that we have made the least progress is the pesticide realm, creating a North American market for pesticides. This is has been a thorn in my side, and until recently, we have made very, very little progress. In fact, since 1993—the Congressman is right—we have very few things that we can point to as a success for allowing for the transport or movement of products.

Mr. ETHERIDGE. Good, and in that light, having raised that issue, Mr. Vroom, let me ask you to hear from, really, the consumers—farmers—that it is a considerable fluctuation in the pesticide process from year to year, and, gentlemen, I hope you will talk about that.

The second part of that question, maybe more specifically, is why is there a difference between the borders and, thirdly, why the same chemical is cheaper when they are imported from Canada, even though they have got to have transportation and all of the inspections at the border, than they are when they are produced right here in the United States, the same products.

Maybe you can help me explain that to the people who buy those chemicals.

Mr. VROOM. Certainly.

While I think there has been fluctuation and, again, a steady decline from \$9 billion to \$6.5 billion, there is a fluctuation that has

resulted in my association having fewer member companies, fewer employees in those member companies and, frankly, less capacity to continue at the same level as we had underway in the 1990's in research and development, looking for newer or better products. So, indeed, \$2.5 billion less is being spent by the American farmer today than in 1997 on pesticide products for the production of crops in the United States.

Are there individual products that may be priced differently on either side of any international border? Certainly. Are there as many that have significant price differentials on either side of the U.S.-Canada border as there were in 1997? Absolutely not.

We have been asking, pleading, with the USDA to redo the study that they did in the late 1990's that gave us the best national look at the data, and for some reason, we have been unsuccessful with the Bush administration in convincing them that this is a worthwhile undertaking, and so, if I might, I would very much appreciate the support of this committee's joining us in continuing to ask USDA to update that study along with their counterparts in Canada so that we would have a better handle on what the real issues are.

Mr. Gray has indicated that farmers on both sides of the border have submitted lists of products that are of concern, and that is certainly a starting point, but that is a snapshot—it is anecdotal—and again, I think it would be very helpful for us if the Bush administration would step up and have USDA renew that work.

Mr. Gray referred to MRLs and harmonizing MRLs, which is so that treated agricultural products can move freely back and forth, and that is a very important issue, and on page 4, at the bottom of page 4 of my written testimony, we talk about the fact that, just recently, the Canadian Government has proposed a sweeping change to take off the books default tolerances for many, many pesticide product residues that are not registered in the United States. For many years, they had a default level where, below a certain detection limit, it was a "so what" level, and our treated agricultural products could move then freely into Canada. All of a sudden, they proposed taking away all of those exemptions, if you will, and the consequence one would have to wonder is are they just protecting Canadian farmers. I do not know the exact drivers for this, but you would have to have that suspicion, which leads to another point that I think is important to bring up for the record here today, which is that we all have good intentions, but you all can only control the Government on this side of the border, and this is a partnership that is going to require transparency and forthrightness on the part of both countries, and I think this stunt by the Canadian Government is a good reminder that, on any given day, they may have political pressures that drive them to make decisions that are more protectionistic than not, and so it takes two to tango here, and we need to hold their feet to the fire.

Mr. ETHERIDGE. Thank you.

Thank you, Mr. Chairman. Mr. Chairman, I would encourage the Chair to take that under consideration in asking the Department to do that study.

Mr. LUCAS. The Chair now, after much anticipation, turns to the gentleman from North Dakota, Mr. Pomeroy.

Mr. POMEROY. I thank the chairman.

I have always enjoyed working with Jay Vroom, and know he has a difficult case to present today of some companies that are now beginning to work cooperatively on a voluntary registration, others maintaining the hard line, but gee, I have got to tell you. From your testimony, I draw that there are 16,115 registered products in the United States, 5,274 registered products in Canada. We have heard from the EPA that there is something like one product that has been approved for a harmonized label, and they are working, maybe, on two others out of those thousands and thousands of products, and then, in your testimony on page 2, you have this long list of imposing problems in terms of moving toward pesticide harmonization, although it has been the law of the land since 1993, and then you say you are for it. Well, this is the case where actions speak louder than words.

The thrust of your organization, in my opinion, has been to resist at all costs this move toward harmonization. I am surprised you didn't get a message, when you were in Montana, about costs continuing to be a concern north versus south of the border.

Mr. Gray, I would just ask you: Are pricing disparities north versus south of the border continuing to be a concern to the farmers that you are dealing with?

Mr. GRAY. Congressman, in my State, yes. I hear frequently from North Dakota farmers and crop consultants who do all sorts of business in Canada to buy washing machines and clothing and even a lot of agricultural inputs—fertilizer and seed and their farm machinery. They are frustrated that, although they can buy all of those other inputs, they cannot buy chemicals, and they always question why, and so it is a major issue in North Dakota. It does have a big effect on the bottom line of North Dakota producers, and it is a real issue. It is not just a North Dakota/Montana issue. This is a national issue.

Mr. POMEROY. You have taken a very positive tact with your testimony, so let me try and reflect a little more of a positive framing of this issue with the rest of my time.

Work is underway in the Working Group. You have another meeting in December of this Working Group, and you have a couple of pesticide companies that are participating in the cooperative basis, a couple of Mr. Vroom's members.

What can we expect? As we look at this situation with enormous frustration, setting that aside, what can we realistically expect we will achieve out of this December meeting that might have relevance on the next crop year?

Mr. GRAY. Well, Congressman, I think, at the next meeting of the sub team, we should have a definitive word from the regulators that NAFTA labeling is doable from a regulatory point of view. The only thing left is for registrants or a registrant to step up to the plate and to start putting NAFTA labels on their containers, and so, for this upcoming growing season, we are going to have a small number of products crossing the border as part of this short-term pilot that is being called the "American Own Use Import System," and I would hope that we would also start seeing some products with NAFTA labels crossing that border.



Mr. POMEROY. I think monitoring the progress on that will be very important for this committee. Quite frankly, there is just no way 6 years should have passed since you had last focused interest on this until now, and I think that it would be helpful for us if you would keep us informed.

So, following the December meeting, would you write to the chairman and to all of us, the subcommittee members—I would like to be copied on that letter also—about what occurred at the meeting and what you see in terms of voluntary progress for the crop year ahead.

Mr. GRAY. I would be more than happy to do that.

Again, we are committed to a scenario that is a win-win, and hopefully, we will have some registrants that will voluntarily step up to the plate and do this.

The expectation of me and growers is we expect to see NAFTA-labeled products being imported this growing season. If we don't, we will most likely be back in front of this body, talking about legislative solutions to this issue.

Mr. POMEROY. I look forward to working with you on legislative solutions because I am absolutely out of patience. I think it is hard to move to a win-win when you have got a win-lose business plan, and I believe pricing disparities for the same product for the same application, north versus south, because the market will bear a higher price south is nothing less than price gouging farmers for the bottom line, and that is a losing strategy for the American farmer. I think, over the long run, it is a losing strategy, and it is not sustainable for the membership of Mr. Vroom's organization. So it is hard to move from a, basically, win-lose business plan to a win-win outcome, but it is high time we move here. This business of public policy tolerance of price discrimination is done, and so I am very hopeful that your more diplomatic efforts at trying to move this over the goal on a voluntary participatory effort with the registrants, with EPA will produce something that maybe will show that things are moving even without further legislative attention by this committee, but I am certainly ready to act if that is what it requires.

I thank the gentlemen.

I yield back, Mr. Chairman.

Mr. LUCAS. Thank you. The gentleman's time has expired, and all time has expired for the questions.

Without objection, the record of today's hearing will remain open for 10 days to receive additional material and supplemental written questions from witnesses to have answered composed by the members of the panel.

This hearing on the Subcommittee on Conservation, Credit, Rural Development, and Research is adjourned.

[Whereupon, at 11:41 a.m., the subcommittee was adjourned.]

[Material submitted for inclusion in the record follows:]

#### STATEMENT OF JAMES B. GULLIFORD

Good morning, Mr. Chairman and members of the committee. Thank you for the opportunity to appear before you today to discuss the Environmental Protection Agency's efforts to harmonize pesticide labeling between the U.S. and Canada as well as our activities to meet our statutory requirements to protect human health

and the environment from the potential risks of pesticide use. I assure you that the Agency is committed to working with Congress, our state and Federal regulatory partners, and our stakeholders on these important issues.

#### PESTICIDE LABEL HARMONIZATION

I would like to begin my testimony with the issue of pesticide label harmonization with our Canadian regulatory partners. Under the North American Free Trade Agreement (NAFTA) Technical Working Group on Pesticides (TWG) and other international fora, EPA has been working closely with Canada to address pesticide issues, including those under the NAFTA provisions on Sanitary and Phytosanitary Standards (SPS).

The Working Group's primary objective is to facilitate cost effective pesticide regulation and trade through harmonization and work sharing while at the same time ensuring protection of human health and the environment. Together, we have developed harmonized regulatory and scientific requirements and jointly registered needed products in support of the principles of sustainable pest management. EPA's work on pesticide harmonization with Canada, which began in earnest in 1993, is providing benefits directly to the American farmer. In the long term, the creation and ongoing support of greater harmonization of North American regulatory and scientific requirements for pesticides will ensure a more level playing field across borders while maintaining our high standards of protection.

Under the NAFTA Working Group, the United States and Canada have initiated a stakeholder process including Canadian and U.S. industry, growers, grower representatives, and pesticide distributors to develop and implement strategies to facilitate cross-border movement of pesticide products. The focus of our work has been to develop both a short- and long-term strategy to facilitate trade in pesticide products across the U.S. and Canadian border. It is important to note that while this work aims at facilitating trade, it will in no way compromise U.S. health and safety standards.

The work group has agreed on the short-term strategy, which involves the re-labeling of existing Canadian product to facilitate import by U.S. growers purchasing it for their own use. While the focus is on developing a viable program for the spring of 2007, a pilot chemical was selected to use as a case study this fall of 2006. The case study of the proposed process has now been completed and we expect actual importation, on a test basis, of the pilot chemical within the next few weeks.

U.S. growers have consolidated and prioritized a list of chemicals that they would like to be able to access through the short-term program. That list will form the basis for selecting chemicals for the import program in the spring of 2007. Registrants have thus far volunteered to participate in the import program for 5 chemicals on the list. We expect that more registrants will volunteer for the program once they have had a chance to analyze the case study.

The long-term strategy focuses on developing joint labels for use in both the U.S. and Canada that will be part of product packaging, facilitating free movement across the border. Two options are currently being considered and registrants have developed draft labels to illustrate these options. EPA, Canada's Pest Management Regulatory Agency (PMRA), and the registrants are working to finalize one of these labels, which will serve as a template for others. Registrants have thus far volunteered three chemicals for development of the joint US/Canada labels and another one is possible, pending resolution of trademark issues. Finally, EPA and PMRA have proposed a process for new joint mechanisms for the label amendments and review. We are very excited about this approach and its potential to address this longstanding issue.

#### PESTICIDE REGISTRATION IMPROVEMENT ACT (PRIA)

I would now like to discuss EPA's implementation of its statutory requirements, beginning with the 2004 Pesticide Registration Improvement Act (PRIA). PRIA provides for the coupling of registrant fees with specific decision completion timeframes for certain pesticide registration activities. Under PRIA, fees are collected from the pesticide manufacturers for 90 different types of actions, ranging from a request to register a new food use pesticide to various types of amendments to existing registrations. PRIA also reauthorized maintenance fees, which are providing \$116 million over a five year period for reregistration and tolerance reassessment work at EPA. These fees are critical to ensure stable funding for the review of older pesticides.

In response to the PRIA requirements, we have taken several steps to improve the timeliness of our decisions. For example, we created a stakeholder advisory group to provide advice on program efficiencies. Many actions, such as improving

processing and screening of applications, are internal to the Agency. After we receive an application, we bring together appropriate staff to determine what specific work is required and how to most efficiently complete that work. We encourage innovative approaches to streamline reviews and are investigating ways to reduce the time needed for regulatory support work. Work is underway to determine how to enhance work sharing with other regulatory authorities, such as Canada.

Looking forward, the Agency is exploring ways to enhance the use of information technology to facilitate the registration application process and reduce review and decision times. Our goal is to develop an interactive, web-based application system that would guide an applicant through the application submission process and would help identify mistakes and omissions as they are made. Initially, our focus is on electronic review of labels and review of label changes. It is important to note that, while we are actively seeking ways to improve review times, we will in no way compromise the scientific quality of our assessments.

Since 2004, the Agency has received nearly 3,900 PRIA actions. For those actions we have successfully met or exceeded the deadline 99.8 percent of the time. In some cases, PRIA calls for decreases in decision timeframes during the life of the legislation. Where this has occurred, we have continued to meet the shorter timeframes.

PRIA implementation has provided new fee revenues, created a performance-based system to improve results, and has increased collaboration between the Agency and stakeholders. EPA will continue to work with the stakeholders to implement PRIA, as well as provide technical assistance on any new or improved fees legislation for pesticide activities at EPA.

#### THE FOOD QUALITY PROTECTION ACT OF 1996

The Agency recently observed the tenth anniversary of the enactment of the Food Quality Protection Act (FQPA). When Congress unanimously passed FQPA in 1996, you presented EPA with the challenge of implementing the most comprehensive overhaul of the nation's pesticide and food safety laws in decades. This was a formidable task that led to a complete transformation in national pesticide regulation. I believe the Agency and its public and private sector partners have been highly successful in carrying out the public health and environmental protections embodied in FQPA.

#### TOLERANCE REASSESSMENT

The centerpiece of Congress' challenge was the requirement to review and reassess the tolerances (maximum permitted residues) for all food-use pesticides within a decade. I am proud to report that we have completed reassessments for more than 99 percent of the 9,721 subject tolerances. This complex scientific effort required the detailed review of tens of thousands of studies and test results on toxicity, chemistry, and environmental data. Notably, this work resulted in the revocation or modification of nearly 4,000 food tolerances.

The United States continues to set the bar for pesticide safety and we have raised that bar. EPA's pesticide standards significantly advance food safety, public health, and environmental protection. This 10-year effort, based on sound science and broad public participation, has resulted in more protective measures for all Americans, especially infants and children. We routinely consider the special susceptibility of infants and children to pesticide residues, and we conduct residential, drinking water, and other non-occupational exposure assessments.

#### REREGISTRATION

These enhancements in our risk assessment process were carried out simultaneously and in concert with the effort to make determinations on the reregistration of existing pesticides. That program resulted in the cancellation of nearly 4,400 individual pesticide end-use product registrations while still ensuring that safe pesticides are available to protect Americans, their homes, and their food supply.

The Agency has taken thousands of individual, protective actions, resulting in enormous public health progress. For instance, the cumulative assessment of organophosphates has resulted in numerous real world benefits. Nearly 1,700 organophosphate tolerances have been reassessed to meet the FQPA safety standards.

Of the 49 organophosphate pesticides (OPs) that were registered at the beginning of the reregistration process, 17 have been voluntarily cancelled or are being phased out. Virtually all residential uses of the remaining 32 OP's have been eliminated. By virtually eliminating use of OPs in residential settings, we have seen reported incidences of unintentional OP poisonings decline by 70 percent. In addition to re-

stricting general organophosphate pesticide use, the amount of these pesticides used on children's foods decreased from approximately 28 million pounds of active ingredient to approximately 12 million pounds between 1994 and 2004—a 57 percent reduction.

Equally crucial in achieving FQPA goals are the many new products and uses we have registered. Over the past 10 years, EPA has registered 248 new active ingredients and more than 1,600 new uses of existing pesticides. Not only did all of these decisions meet the strict safety standards of FQPA, but these new products provided critical alternatives to many of the uses restricted or eliminated as part of the tolerance reassessment and reregistration programs. Without these newly registered lower-risk alternatives, America's shift to safer pesticides would not have been possible.

#### ENSURING SAFE AND EFFECTIVE TOOLS REMAIN AVAILABLE FOR AN ABUNDANT, AFFORDABLE AND HEALTHY FOOD SUPPLY

Equally important as FQPA's statutory requirements was the innovative approach reflected in EPA's implementation. The Agency's guiding principles have been to ensure that decisions are sound and science-based, that our implementation is open and transparent, that actions are timely, and that public policies are sensible. Our work to upgrade the national pesticide program has been guided by these principles and they are embodied in our everyday work. As a result, we have ensured that safe and effective pest management tools are always available to support production of an abundant, affordable, and healthy food supply.

There were many critics who believed that implementation of FQPA would result in the loss of long relied-upon pest control tools without viable alternatives. Instead, the Agency has made a reasonable transition for pesticide users a cornerstone of its implementation activities. Throughout the regulatory process, we communicate with the user community to gather information on the benefits of pesticides and which pesticides or pesticide uses are most critical—information that we consider when making our regulatory decisions.

We have made tremendous progress in the registration of newer, safer chemistries which have enabled growers to move away from older chemicals. We work closely with our colleagues at the U.S. Department of Agriculture, university researchers, and pesticide users to facilitate transition. Finally, activities such as the Pesticide Environmental Stewardship Program and the Strategic Agricultural Initiative help pesticide users interact with Agency personnel and work together to promote sustainable pesticide practices. We look forward to building on this sound foundation to meet the remaining challenges in protecting human health and the natural environment and carrying out additional FQPA mandates.

#### REGISTRATION REVIEW

Notable among the remaining challenges in implementing FQPA is establishing the Registration Review program, which Congress envisioned as the means to guarantee the ongoing stewardship of existing pesticides. Registration review is intended to ensure that all pesticide registrations are systematically reviewed to determine whether they continue to meet the statutory standard for registration. Our goal is to have a seamless transition between reregistration and registration review.

To implement the program, EPA will announce a schedule for pesticides to be reviewed during the current year and at least the two subsequent years. We will assemble information we intend to consider in our review and provide that information for public review and comment. We will review the information and comments to determine what has changed since the last regulatory action and how significant those changes are.

Following that review, the Agency may decide there is no cause to amend the original registration or reregistration decision or that a new risk assessment is needed. If necessary, we will ask for additional data to conduct the new assessment. At the end of the process, a decision document will be published indicating whether a pesticide meets the requirements for registration and, if not, what steps must be taken to ensure that it does.

As with reregistration and tolerance reassessment, the registration review program will be conducted in a manner that is based on sound science and provides for public participation, transparency, and efficiency to protect public health and the environment.

EPA continues to seek and create effective mechanisms for safeguarding our health and environment while ensuring the continued availability of pest management tools. We continue to work to harmonize the availability of pesticide products between the U.S. and Canada through the NAFTA pesticide working group. We are

striving to improve our regulatory decision-making so that we continue to meet the stringent PRIA deadlines. Finally, while EPA is proud of our accomplishments in implementing FQPA, we realize that we must continue that momentum through registration review.

While the Agency pursues these activities, we are ever mindful of our responsibility to protect human health and the environment. Our challenge is to continue meeting this responsibility in a manner that uses the best available science, that is open and transparent, and that recognizes the need to make sensible, timely decisions.

Thank you for the opportunity to discuss these matters. I look forward to working with you, other Members of Congress, and other affected stakeholders on these important issues.

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TESTIMONY OF  
JIM GRAY  
PESTICIDE REGISTRATION COORDINATOR  
NORTH DAKOTA DEPARTMENT OF AGRICULTURE

ON BEHALF OF  
NORTH DAKOTA AGRICULTURE COMMISSIONER ROGER JOHNSON

BEFORE THE

HOUSE COMMITTEE ON AGRICULTURE, SUBCOMMITTEE ON CONSERVATION,  
CREDIT, RURAL DEVELOPMENT AND RESEARCH

THURSDAY, SEPTEMBER 28, 2006  
10:00 AM

Chairman Lucas and members of the Subcommittee, I am Jim Gray, Pesticide Registration Coordinator with the North Dakota Department of Agriculture. I am here today on behalf of North Dakota Agriculture Commissioner Roger Johnson. I would like to offer comments on EPA's pesticide program, specifically the work that the Agency does in the area of pesticide harmonization.

I frequently work with EPA's Office of Pesticide Programs staff on pesticide registration and regulatory issues, especially staff from the EPA's Registration Division. I have the highest regard for the work that EPA does in regulating pesticides to ensure that their use does not result in unreasonable adverse effects to human health and the environment. EPA's pesticide regulatory programs are widely considered to be the most rigorous in the entire world, setting the standard for how pesticides are evaluated for their effects on health and safety. Furthermore, the U.S. food supply is the safest in the world, due in large part to EPA's pesticide registration and regulatory programs.

**EPA participates in the NAFTA Technical Working Group**

I would like to especially call the Subcommittee's attention to the work that EPA does in the area of North American pesticide harmonization as part of the Agency's participation on the NAFTA Technical Working Group (TWG) on Pesticides. The TWG contains pesticide staff from the U.S. EPA, Canada's Pest Management Regulatory Agency (PMRA), and Mexico's CICOPLAFEST. The TWG was formed shortly after NAFTA was implemented when it became evident that country-specific pesticide laws and regulatory processes created a barrier to the free trade of pesticides and pesticide-treated commodities.

Although the term "pesticide harmonization" can differ among stakeholders, I think that we cannot claim that we are harmonized until we create a system that meets all four of the following

criteria: A) free trade in pesticide-treated commodities across North America, B) free trade in pesticides among North American countries, C) equal access to pesticide uses so that growers in all three countries can have similar pest management tools, and D) similar pesticide registration requirements and systems in all three countries so that registrants can obtain pesticide registrations with similar data and along similar timelines in each country. As a member of the NAFTA TWG, EPA continues to work with its counterpart pesticide regulatory agencies in Canada and Mexico to address all four of these areas in an effort to share resources and workloads, put pesticide users on a level playing field across North America, eliminate trade irritants, and give registrants greater predictability.

#### **Segmented U.S./Canadian pesticide markets results in pesticide price disparities**

Pesticide harmonization is a high-priority issue in northern border states like North Dakota, especially as it pertains to creating a North American market for pesticides. Barriers currently exist in federal laws and regulations that prevent U.S. farmers from importing and using lower-priced Canadian pesticides without the consent of pesticide manufacturers, even if a Canadian product is identical to one registered for use in the United States. This is fundamentally unfair since Canadian grain produced with those lower-priced pesticides competes with American grain on the open market.

At the center of the issue is the fact that any pesticide products entering the U.S. for use by farmers must contain EPA-approved labeling that explains how to properly use the product. However, at the present time, Canadian products are labeled with Canadian labels, and U.S. products are labeled with U.S. labels. Federal regulations allow pesticide manufacturers to control who re-labels their products, and farmers cannot re-label Canadian products with U.S. labels without the manufacturer's consent, even if the two products are identical. Specifically, 40CFR167.3 defines pesticide production as including labeling and re-labeling. Furthermore, Section 7 of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) requires that all pesticide production occur at establishments that have been registered with EPA. As a result, U.S. growers are unable to re-label and import lower-priced Canadian pesticides, and manufacturers have been able to profit from this system of artificially-segmented markets.

This system of segmented pesticide markets has resulted in pesticide price disparities across the U.S./Canadian border with significant economic impacts to American farmers. For example, the North Dakota Department of Agriculture has tracked the retail prices of 35 commonly-used herbicides between North Dakota and Saskatchewan since the year 2000 (Table 1 below). It should be noted that some pesticides are cheaper in ND than SK, while others are more expensive in ND than SK. The "ND Cost" column was calculated by multiplying the cost difference per acre by the number of treated acres for those pesticides that are cheaper in SK than ND. The "ND Benefit" column was calculated by multiplying the cost difference per acre by the number of treated acres for those products that were cheaper in ND than SK.

*Table 1.* Tracking the statewide impact of ND/SK pesticide price disparities for 35 common herbicides.

Year	ND Cost <sup>a</sup>	ND Benefit <sup>b</sup>	Net Total Cost to ND <sup>c</sup>	Exchange Rate
Million USD				
2000	24.8	7.0	17.8	0.67341
2001	23.2	8.0	15.2	0.64577
2002	21.5	6.6	15.5	0.63686
2003	13.9	15.0	(1.1)	0.71575
2004	21.4	31.1	(9.7)	0.76967
2005	14.9	36.4	(21.5)	0.82586

<sup>a</sup>Total ND Cost for only those herbicides more expensive in ND than SK

<sup>b</sup>Total ND Cost for only those herbicides more expensive in SK than ND

<sup>c</sup>Calculated by subtracting ND Benefit from ND Cost

From 2000 to 2002, the majority of herbicides used in ND were cheaper in SK than ND, and ND farmers could have saved over \$20 million per year if they could have accessed their herbicides at SK prices. Even after subtracting those products cheaper in ND, the net cost still weighed heavily against the ND farmer. In 2003, ND farmers essentially broke even, meaning that just as many products were cheaper in ND as they were in SK. In both 2004 and 2005, the price disparity swung to the overall benefit of ND farmers, although ND farmers could have saved \$21.4 million and \$14.9 million in 2004 and 2005, respectively, if they could have accessed some products at SK prices.

It should be noted that the actual costs of most herbicide products did not change significantly from 2000 to 2005. Instead, the major factor affecting the pesticide price disparities between ND and SK was the exchange rate between the U.S. and Canadian dollar. For reference, the exchange rate increased over 22 percent from 2000 to 2005. However, although the current exchange rate favors ND when it comes to price disparities, the USD will eventually strengthen, meaning that U.S. farmers will once again experience the pesticide price disparity burden seen in the early 2000's. As a result, we continue to fight to de-segment the U.S./ Canadian pesticide markets and eliminate barriers to the cross-border access to identical or substantially similar pesticide products.

I would like to stress that although North Dakota and Montana growers have been most vocal on this issue, the pesticide price disparities resulting from artificially-segmented markets has national impact. A 2005 study from the Center for Agricultural Policy and Trade Studies at North Dakota State University concluded that U.S. farmers and ranchers would save \$178 million per year if they could purchase pesticides at Canadian prices. The National Association of State Departments of Agriculture (NASDA), representing the commissioners, secretaries, and directors of state departments of agriculture in the fifty states and four U.S. territories, has supported efforts to de-segment the U.S. and Canadian pesticide markets for many years. In addition, senior agriculture officials from 15 Mexican states, 16 U.S. states, and 8 Canadian provinces sent a letter to both the U.S. Congress and Canadian Parliament in August 2006 to



recommend passage of legislation that would mandate the use of joint U.S.-Canadian pesticide labeling whenever identical products were registered in both countries.

#### **TWG formed a sub-team to eliminate regulatory barriers to NAFTA pesticide labeling**

At the NAFTA TWG stakeholder meeting in December 2005, U.S. and Canadian growers strongly requested that the TWG form a sub-team of regulators, growers, and registrants to specifically look at strategies to create a North American market for pesticides. This sub-team would compliment other TWG sub-teams that are addressing other pesticide harmonization issues. The TWG agreed to the request, forming the sub-team to look at both short-term and long-term strategies to de-segment the U.S. and Canadian pesticide markets and allow for the cross-border movement of products. The sub-team contains staff from the U.S. EPA and Canadian PMRA, and registrant and grower representatives from both the U.S. and Canada. Recently, the sub-team was expanded to include pesticide retailers and distributors. I am also a member of the sub-team as the lone state pesticide regulator.

I am happy to say that the NAFTA TWG sub-team has made considerable progress since its formation less than a year ago. Much of the credit should go to Lois Rossi, Director of EPA's Registration Division and chair of the sub-team.

The ultimate long-term means to create a joint U.S./Canadian pesticide market is through use of pesticide labeling that meets the regulatory needs of both countries. This would negate the need for pesticide containers to be re-labeled prior to crossing the border, thereby allowing pesticide products to move freely based solely on market forces. For reference, such labeling is commonly called "NAFTA labeling", although we are focused solely on joint U.S./Canadian labeling at the present time. We are hopeful that Mexican regulators and stakeholders will take part in the NAFTA labeling sub-team in the future.

The sub-team is exploring various formats for NAFTA labeling, including dual labeling (packaging with a U.S. label on one side and the Canadian label on the other), joint labeling (combining Canadian and U.S. label language into one joint document on the container), use of electronic labeling (package label would contain minimal information such as ingredients and emergency contact information, with an internet URL to download the U.S. or Canadian label), and use of supplemental labeling (similar to the electronic label model, but the country-specific label would be distributed in hard-copy form at the retailer). I am confident that NAFTA labeling is possible from both a regulatory and process perspective, although the sub-team has not yet settled on the ideal format for these documents. In the future, we will also need to discuss strategies to result in the widespread adoption and use of NAFTA labeling by registrants.

#### **Use of an Own Use Import system as a short-term solution**

Even though the sub-team has made a considerable amount of progress in identifying and resolving remaining barriers to the use of NAFTA labeling to de-segment the U.S. and Canadian

pesticide markets, we are several years away from packages with NAFTA labels reaching the marketplace. Further, without a law or regulation requiring registrants to use NAFTA labeling, there is no reason to believe that simply making it available will lead to registrants discontinuing their current practices. Therefore, the sub-team is exploring short-term strategies that will allow for the cross-border movement of pesticides until we do see widespread adoption of NAFTA labels.

In the mid-1990s, Canada's PMRA created the Own Use Import (OUI) permit system to allow Canadian growers to access certain U.S. pesticides. The OUI system allows Canadian growers to import U.S. pesticides that are identical to products registered in Canada, but only for the grower's own use. The OUI has had limited use by Canadian growers until recently because the importer is required to pay for the chemical analysis required to prove the two formulations are identical. In addition, because the grower assumes all liability for crop injury and non-performance, the cross-border price disparities were seldom large enough to make the OUI option attractive. In fact, less than 10 liters of U.S. products were imported through the OUI for the first ten years of the program's existence.

This changed in 2005 when price disparities were large enough to make the OUI permit system an attractive option for Canadian farmers. Also, many Canadian growers banded together to share the costs of chemical analysis and shipping of U.S. products. In 2005, approximately 5.75 million liters of U.S. glyphosate products were imported into Canada, resulting in savings of over \$20 million in Saskatchewan alone.

Unfortunately, a system to compliment the Canadian OUI system does not exist for U.S. growers. Therefore, the TWG sub-team has initiated a pilot program to determine whether a U.S. version of the Canadian OUI system is a viable short-term option to allow U.S. growers to access certain Canadian pesticides. Under the pilot, certain Canadian retailers and distributors will obtain EPA establishment numbers, thereby allowing them to re-label the Canadian pesticides with the consent of the product registrant. Like the Canadian OUI, U.S. farmers would only be able to access certain Canadian products, and import would be limited to products for a farmer's own use.

Two registrants have volunteered use of some of their products for this pilot, and we will likely see the cross-border movement of these pesticides in time for the 2007 use season. Please note, however, that this is a limited number of products. Also, this short-term solution is a less-than-ideal option because it forces U.S. growers to by-pass their local chemical dealers. However, it is a step toward a joint U.S./Canadian pesticide market.

#### **Legislative solutions may be needed for adoption of NAFTA pesticide labels**

We are almost certain that we can eliminate any regulatory barriers to the use of NAFTA labeling. We will then need to create a system that will result in the widespread adoption of NAFTA labeling on the part of registrants. To date, registrant participation in the process has

been positive, and we are looking at creating solutions that will benefit all stakeholders. Doing so will make use of NAFTA labeling an attractive, voluntary option for some registrants.

However, we may well reach a day when we are back in front of the U.S. Congress to discuss statutory changes needed for the widespread adoption of NAFTA pesticide labeling. This may be the creation of incentives for pesticide registrants to use NAFTA labeling, such as extending the period of time that registrants retain exclusive use of intellectual property. This could also involve the creation of a requirement for registrants to use NAFTA labeling whenever the identical or substantially-similar formulation is registered in both the U.S. and Canada. In the meantime, we remain committed to allowing the NAFTA labeling sub-team to find administrative solutions. It should be noted that Commissioner Johnson and many of our farmers are growing impatient. Cross border price disparities have been an issue in North Dakota for at least 10 years.

We may also be in front of this body to discuss better and more efficient ways to verify that U.S. and Canadian formulations are identical. Formulation composition information is highly sensitive information, so much so that it is treated as confidential business information. EPA receives Confidential Statements of Formula from registrants as part of the U.S. pesticide registration process. Canada's PMRA also receives formulation information for products registered in Canada. However, EPA and PMRA cannot legally exchange that formulation information with each other. As a result, we depend on registrants to verify whether or not a lower-priced Canadian pesticide is identical to one registered in the U.S. and vice versa. Some registrants are cooperative to these inquiries, while others are sensitive to the market implications that may arise from verifying identity. We may very well need to amend federal law to allow EPA to exchange pesticide formulation information with Canada's PMRA.

### **Summary**

For many years, agriculture has been a global industry. Much of the grain produced by U.S. farmers is exported to foreign markets, and pesticide-treated commodities are shipped to the U.S. daily to compete with commodities produced domestically. U.S. growers can import virtually all of their inputs from Canada, including seed, fertilizer, and machinery. These decisions on whether or not to import these Canadian inputs are largely business decisions independent of the manufacturer's consent.

However, U.S. growers still cannot import Canadian pesticides without the consent of the pesticide manufacturer. This is fundamentally unfair, especially when Canadian grain treated with Canadian pesticides continues to flow into the U.S. every day to compete with the grain produced here.

In addition to being unfair, this is a clear violation of NAFTA. Article 102 of NAFTA describes the objective of the Agreement to be, in part, to "...eliminate barriers to trade in, and facilitate the cross-border movement of, goods and services between the territories of the Parties."

Clearly, the current system of country-specific pesticide labeling presents a clear barrier to the cross-border movement of pesticides.

I am hopeful that we can find a win-win scenario that will result in the widespread adoption and use of NAFTA labeling in the near future. To their credit, some registrants have joined the process, realizing that the time has come to de-segment the U.S. and Canadian markets and allow for the cross-border movement of products. On behalf of the North Dakota Agriculture Commissioner, I would like to publicly thank those pesticide registrants who have been working with us to create both short-term and long-term strategies to allow U.S. farmers to import and use Canadian pesticides. Finally, I would once again thank EPA for its leadership in this issue and helping to keep stakeholders focused on resolving barriers to the use of NAFTA labeling.

I thank the Subcommittee for the opportunity to offer comments on EPA's pesticide registration program on pesticide harmonization. I would be happy to answer any questions.

## STATEMENT OF JAY VROOM

Mr. Chairman and Members of the subcommittee: I am Jay Vroom, President of CropLife America (CLA). CLA is a national trade association representing the manufacturers, distributors and formulators of virtually all crop protection chemicals used in the United States. I appreciate the opportunity to testify before you today.

I want to begin by thanking Chairman Lucas and the entire subcommittee for holding this important hearing and for your ongoing leadership and oversight on all pesticide and crop technology issues. I was pleased to testify before the full House Agriculture Committee just two weeks ago regarding how the Farm Bill impacts the agricultural chemical industry. I specifically highlighted the tremendous contributions our industry makes toward conservation efforts, including soil, water, wildlife, energy and labor conservation.

However, pesticide benefits represent only part of the story. There are a number of policy challenges facing our industry that also merit our attention, including U.S./Canada regulatory harmonization, Endangered Species Act (ESA) compliance, user fees under the Pesticide Registration Improvement Act (PRIA), and National Pollutant Discharge Elimination System (NPDES) permitting under the Clean Water Act.

## REGULATORY HARMONIZATION

Over the past decade, there has been a significant increase in the amount and complexity of data needed to support registration of pesticides which has placed additional burdens on regulators as well as pesticide manufacturers. As a result, there is a strong interest among regulators and industry alike to achieve international harmonization of the registration processes for pesticide approval, with particular attention being given to harmonizing the regulatory systems between the United States and Canada.

Before granting registration for pesticides, both U.S. and Canadian regulatory authorities perform thorough assessments to ensure that unreasonable adverse effects to human health and the environment will not result from approved uses. However, these authorities regularly differ in the type of data required, the regulatory review process itself and the time required for regulatory review and approval.

For example, the U.S. Environmental Protection Agency (EPA) may require submission of data on endangered species to support a particular use, while the Pest Management Regulatory Agency (PMRA) in Canada would not. Conversely, Canada reviews studies of the efficacy of agricultural pesticide products, while the U.S. does not. These differences can contribute to the disparate costs of doing business in the United States and Canada and affect the availability of certain crop protection products for use by farmers in both nations.

Equally challenging is the sheer number of pesticide products registered for use in both countries. In 2004, there were 16,115 registered pesticide products containing 1,015 active ingredients in the U.S. and 5,274 registered pesticide products containing 525 registered active ingredients in Canada. Since 1997, more than 149 new active pesticide ingredients and 2,489 new uses have been registered by the U.S. EPA alone.

Several broad principles have been espoused by CLA as the United States and Canada work toward regulatory harmonization. First, significant differences between the U.S. and Canadian copyright, patent and trademark laws must be considered before meaningful harmonization can be totally achieved. User safety, customs regulations, and label harmonization differences will also need to be addressed as part of harmonizing U.S. and Canadian pesticide regulation. In addition, CLA believes the proper forum to achieve harmonization of regulatory processes is under NAFTA and that attempts to achieve reform on a state-by-state basis would be unworkable and counterproductive. Furthermore, harmonization between the U.S. and Canada must reduce the time from submission of an application to a final registration decision and minimize any unnecessary duplication of testing. Harmonization must also facilitate increased cooperation among regulatory officials in both countries in order to achieve the goals outlined by the crop protection industry. Lastly, CLA supports harmonization of the pesticide registration process between the U.S. and Canada because it would provide growers with equal access to products on both sides of the border while contributing to the free trade of crop protection products and treated commodities between the countries.

Because the lack of consistent and harmonized regulatory standards between the two countries has slowed access to new products and new product uses, CLA believes that until these differences are resolved, crop protection companies will continue to struggle with meeting different demands for each system. Although the obstacles are formidable, CropLife America believes that focusing on key regulatory

harmonization activities that are essential to both growers and registrants is a high priority and should be addressed in the context of ongoing efforts to achieve full harmonization by various stakeholders.

EPA participates in a variety of international regulatory harmonization activities related to pesticides, including the Organization for Economic Cooperation and Development (OECD). OECD carries on a continual process of review and revision of international chemical testing guidelines, including residue chemistry and ecotoxicology standards.

OECD has recently completed a major development of more than 80 electronic reporting formats for chemical regulatory studies. CLA has contributed substantially to this effort through comments on the individual formats; however, significant additional effort will be required to practically implement the electronic formats by both governments and industry. The ultimate benefits of the project include the ability of registrants to format a study once for submission to any national regulatory authority; collaboration of national regulatory authorities on product approvals through electronic exchange of study reports and reviews; and progress in international standardization of study reviews.

The Food and Agriculture Organization of the United Nations (FAO), in cooperation with the plant science industry, and other international organizations, including NGOs, developed a voluntary code of conduct, The International Code of Conduct on the Distribution and Use of Pesticides, to provide a standard for pesticide regulation, especially useful for those countries that are works-in-progress developing their own adequate national regulatory infrastructures for pesticides. The original FAO Code was published in 1985 and updated in 1989 and again in 2002.

The Code addresses the need for a cooperative effort between governments of exporting and importing countries, as well as other stakeholders, to provide training and promote practices which ensure safe and effective use of pesticides, including the promotion of IPM. The Code also encourages stakeholders to participate in international agreements affecting pesticide distribution and use, including the Rotterdam Convention on Prior Informed Consent (PIC).

Lack of harmonized processes can have real impacts on growers, as differences can affect availability and cost of products. In an August 2004 letter to the U.S. EPA and Canada's PMRA, the National Association of Wheat Growers and the Grain Growers of Canada wrote to express "support for harmonized regulatory systems across the borders of our two countries. On behalf of farmers and crop protection registrants on both sides of the Canadian-U.S. border, we now write to further encourage the development of a seamless joint registration process for crop protection products in the U.S. and Canada. We believe this approach will alleviate the concerns of producers on both sides of the border who want more equitable availability of crop protection products, and will simplify the registration process for manufacturers, allowing them to complete reviews and product approvals more quickly and economically."

The group that is perhaps doing the most intensive work on harmonization at the present time is the NAFTA Technical Working Group on Pesticides (NAFTA TWG). Formed in 1996, the NAFTA TWG consists of representatives from the pesticide regulatory agencies of the three NAFTA countries. The mission of NAFTA TWG is to resolve pesticide registration issues affecting free trade of agricultural commodities across North American borders.

Over the past several years, the NAFTA TWG has made progress in harmonizing science-based test protocols and test guidelines requirements, such as identifying what studies need to be conducted and submitted in the U.S. and Canada. However, significant differences in the regulatory approval processes between the two regulatory authorities still exist. The most significant differences include the registration review time for a new active ingredient; the ability of a registrant to amend a petition after submission; dietary risk assessment procedures; the required content of the pesticide labels; procedures for establishing tolerances or maximum residue limits (MRLs); as well as processes for amending pesticide labels.

A subgroup of the NAFTA-TWG met in Indianapolis, Indiana earlier this month to discuss two pilot projects that would potentially provide interim measures to address concerns of the grower groups. During the meeting, grower representatives from both Canada and the U.S. had the opportunity to present a list of priority products they want to see included in the existing Canadian own-use program and a similar U.S. own-use pilot project being developed by EPA. In addition to the own-use pilot, the NAFTA TWG is also considering a joint U.S./Canada label, where both the U.S. and Canadian use directions would be included on the pesticide container. A few CLA member companies have volunteered products for these trial programs. There are many unanswered questions about both of the pilot projects; however, our industry is committed to finding solutions that provide long-term benefit to the

grower community while expediting real regulatory harmonization between the two countries.

It should be mentioned that there are significant stewardship concerns that exist with own-use importation (OUI) programs, and the existing Canadian law that establishes that country's own-use import initiative has provided a number of negative, unintended consequences. The simple discrepancy of metric application rates used in Canada and English units used in the U.S. could easily lead to serious application errors causing crop damage or loss of efficacy. Furthermore, Canada has industry funded stewardship programs to recycle plastic containers and collect unused and unwanted product. The OUI in Canada allows products to bypass normal distribution channels, so Canadian registrants and distributors often pay the stewardship costs for products they did not sell. For an OUI program to function fairly, the Canadian pesticide industry is asking for the groups that import products to pay the same stewardship fees that the traditional distributors would pay. We believe that an operational U.S. own-use pilot program would have to address similar stewardship concerns.

Regarding MRLs, Canada's Pest Management Regulatory Agency sought comments this summer on its proposal to revoke the long-standing general limit for residues of pesticides that are not registered in Canada. Because of climatic and cropping differences, more pesticides are registered in the U.S. to treat a wider variety of pest problems than exists in Canada. Thus, produce grown here may have residues that are not specifically approved in Canada. The default MRL of 0.1 ppm has long taken care of many such circumstances, facilitating a vigorous trade in agricultural commodities between our two countries.

The Canadian proposal points out the need for progress towards mutual acceptance of MRLs established by either country. There should be no need for one country's regulatory agency to spend time and resources to duplicate the valuable risk assessment work already accomplished by competent scientists in the neighboring country. EPA and PMRA are making significant strides toward these goals, and should be encouraged and aided by Congress in their efforts.

Despite all of the challenges facing both registrants and the grower community, there are success stories that demonstrate that solutions are possible. During the 1990's, the crop protection industry worked through the NAFTA TWG and USDA's IR-4 Program to address product availability concerns from U.S. canola growers. Since canola was comparatively new in the U.S. and the U.S.-planted acreage is considerably smaller than in Canada, U.S. growers were eager to gain access to crop protection products which have already been registered across the border. Industry responded within the course of a few short years by registering nearly a dozen new pesticide uses for canola. The pressure for importing Canadian products diminished once EPA and USDA worked together to expedite similar products registrations in the U.S.

#### FQPA 10-YEAR DEADLINE

While EPA continues to make progress on harmonization efforts, the Agency certainly deserves recognition for its achievements under the Food Quality Protection Act (FQPA) in reassessing pesticide residue tolerances by August 3, 2006.

EPA's work over the past 10 years has resulted in the reassessment of some 9,700 residue tolerances. CLA and our members have worked with the Agency in the administration of FQPA, but we have on-going concerns with its implementation. Continuing political pressure has been directed at EPA to push FQPA beyond its original, science-based intent while growers, food companies and the crop protection industry have worked for a more reasoned regulatory policy.

During this 10-year process, many decisions that negatively affected pesticide products were shaped by political pressures. Some of these matters are still open today, such as the battle over the use of ethically produced human clinical and worker exposure data in regulatory decisions. It is important that EPA applies transparency and good science policy to allow statutory standards to be clearly applied to pesticide regulations.

Congress passed FQPA in 1996 and the act went into effect immediately. As a result of the new law, better scientific methodology was developed and implemented, such as reviews of the Environmental Fate model updates. Throughout the reassessment procedure, a wealth of valuable data was generated, including Market Basket residue surveys, exposure data, crop profiles, biomonitoring information, and water monitoring data. At the same time, risk assessment methodology was carried out in a much more transparent fashion.

Industry developments during this period focused on bringing newer, more effective pesticides to the market. Through the Pesticide Registration Improvement Act

(PRIA), industry fees allowed EPA to maintain and accelerate its pace on tolerance reassessment and provide improved time lines and predictability for registration of new pesticide products. PRIA will need to be reauthorized rather soon and we and the rest of the registrant community stand ready to work with the House Agriculture Committee to accomplish this on a timely and informed basis.

As a result of FQPA and the efforts of EPA, the food chain, and the crop protection industry, Americans continue to reap benefits from a rigorous and thorough regulatory program and to enjoy the safest food supply in the world.

#### PESTICIDE REGISTRATION IMPROVEMENT ACT

PRIA was enacted on January 23, 2004. It requires pesticide registrants and applicants to pay specific service fees to EPA for the registration applications that it handles. This law also establishes specific timelines for EPA to accomplish the various registration actions and prohibits certain other user fees for pesticides.

The intent of the law is to provide additional resources for EPA's registration efforts and a more predictable evaluation process. As enacted, PRIA will be effective for five years and it continues the prohibition on the collection of pesticide registration fees (40 CFR Part 152.400), which has been in effect since FIFRA was amended in 1988. PRIA also suspends collection of tolerance fees authorized by the Federal Food Drug and Cosmetic Act (FFDCA) (40 CFR Part 180.33).

CLA has successfully helped lead an Industry Fees Coalition that includes eight trade associations representing pesticide registrants and worked closely with environmental and labor groups in lobbying Congress for passage of PRIA, in defending PRIA since its enactment, and in implementing PRIA with EPA.

In addition to the new registration service fees, PRIA retained and increased the product maintenance fees that support reregistration and tolerance reassessment under FQPA. Industry is projected to pay a total of more than \$200 million over a five year period. The registration service fees and increased maintenance fees went into effect in the spring of 2004.

The amount of the pesticide registration service fees and the timetables for the review periods vary somewhat from year to year to provide for phasing in the new timelines. Since 1989, Federal budget proposals by various administrations have repeatedly sought to reinstate the original pesticide registration fees for new products (40 CFR Part 152.400) through modification of FIFRA. For FY 2007, OMB has proposed in the President's Budget increasing pesticide user fees from anticipated revenues of \$31 million in PRIA and maintenance fees to a total of \$87 million by increasing both PRIA and maintenance fees, reinstating tolerance fees and creating a new "registration review fee."

Fortunately, Congress has repeatedly barred collection of these other fees and ignored Administration proposals to modify FIFRA and FFDCA accordingly. Proposals for additional registration and tolerance fees would violate the spirit of the compromise that resulted in the passage of PRIA.

PRIA has been successful in improving the predictability and speed of the pesticide registration process, and CLA calls on Congress and specifically this committee to reauthorize this important law.

#### ENDANGERED SPECIES ACT

One of our industry's most significant policy objectives is the modernization of the Endangered Species Act (ESA). CLA supports practical, balanced and scientifically-sound amendments to the ESA to make it effective in recovering and saving species at risk. We believe Congress needs to amend the ESA to improve the availability of new technology and crop protection products for species habitat recovery. A huge step was taken last fall when the House passed H.R. 3824, the "Threatened and Endangered Species Recovery Act." We call on the Senate to pass similar legislation.

When the ESA was enacted in 1973, there were 109 species listed for protection. Today there are roughly 1,000 U.S. species listed as threatened or endangered, nearly 300 species considered as "candidates" for listing, and nearly 4,000 "species of concern." The authorization for Federal funding of ESA activities expired on October 1, 1992, though the U.S. Congress has appropriated funds in each succeeding year to keep the program active.

On August 5, 2004, following coordination with EPA and the United States Department of Agriculture (USDA), the Fish and Wildlife Service and the National Marine Fisheries Service published a joint counterpart regulation, which streamlined the interagency consultation process for endangered species risk assessments for pesticides. This new regulation intended to marry the effects analyses requirement of ESA with the scientific-based, data-intensive environmental analyses required by the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA). The need for such



regulations had been highlighted by a string of ESA citizen suits alleging that EPA failed to consult with FWS and NMFS when registering pesticides. The concerns about current court decisions and threats of additional litigation have created piecemeal regulatory process, as well as unnecessary restrictions for pesticide products. These lawsuits have cost taxpayers millions of dollars as EPA defends itself against a process that does nothing to improve protections for endangered species. Just in the Pacific Northwest states, USDA estimates that the impact of one of the major ESA/pesticides court decisions on agriculture is approximately \$583 million annually. There are approximately 10 similar lawsuit filings across the country. Furthermore, just last month, a Federal judge in Washington State found portions of the ESA counterpart regulation to be invalid, thus increasing the uncertainty surrounding the pesticide registration process and threatening farmer's access to important crop protection products. Congressional action is needed so these products, which are so critical for food and fiber production, will not be terminated or compromised in the interim by further court orders or settlement agreements.

#### NPDES CLEAN WATER ACT PERMITS

In 1972, Congress enacted the Clean Water Act and amended FIFRA. The Clean Water Act authorized EPA to protect the nation's waterways by regulating discharges of large industrial operations and wastewater facilities through the National Pollutant Discharge Elimination System (NPDES). FIFRA provided EPA with the authority to regulate the sale and use of pesticides through a comprehensive registration and labeling protocol.

Although CWA and its NPDES permit requirements have been in effect for over thirty years, no government agency has ever concluded that the application of pesticides in accordance with label directions requires an NPDES "point source" permit, including aquatic mosquito and weed control, as well as terrestrial uses that may result in incidental spray drift entering water. FIFRA already requires strict testing of pesticides to ensure water quality and aquatic species preservation; therefore, an NPDES permit for pesticide applications has always been considered unnecessary and duplicative.

However, in March of 2001, the U.S. Ninth Circuit Court of Appeals ruled in *Headwaters, Inc. v. Talent Irrigation District* that NPDES permits were required for the use of aquatic herbicides to control weeds in waterways. In November 2002, the Ninth Circuit ruled in *League of Wilderness Defenders v. Forsgren* that an airplane used for the application of moth control products in the forest canopy was a "point source" pollutant and therefore aerial spraying of pesticides required an NPDES permit under the Clean Water Act. Other similar cases are pending, and activist groups are now using this unfortunate precedent to threaten lawsuits against American farmers who must make millions of pesticide applications every year in order to maintain viable crops.

Furthermore, since NPDES permits were never intended to be used for pesticide applications, Federal and state agencies are not prepared to handle the massive rise in permit requests that would result from farmers who must spray regularly throughout the growing season. In many states, obtaining an NPDES permit is very costly, time consuming and bureaucratic. It is not practical to expect American farmers to bear such a major expense and delay urgent applications in the event of a fast developing pest infestation.

EPA has issued several interpretive statements over the past two years reiterating its position that NPDES permits are not required for pesticide applications directly to or near waters of the United States. A proposed rule is currently pending at EPA, which would codify the agency's position.

While EPA's proposed rule is certainly a positive development, the agriculture industry believes that legislation is the surest way to remove the threat of lawsuits against farmers. EPA has also acknowledged that a rule will not alleviate the threat of litigation. Farmers, irrigators, mosquito abatement districts, fire fighters, Federal and state agencies, pest control operators and foresters will all benefit if Congress chooses to clarify current law. We commend Congressmen Butch Otter and Dennis Cardoza and a total of 76 other bipartisan cosponsors for introducing H.R. 1749, "The Pest Management and Fire Suppression Flexibility Act." We encourage Congress swiftly adopt this legislation to resolve this important issue.

#### HUMAN CLINICAL STUDIES

Understanding potential risks to people is usually based on tests performed with laboratory animals. Decades of experience reviewing both animal and human studies, has demonstrated that animal data alone may provide an incomplete picture of safety and risks. Since animals are not able to speak, they can not provide informa-

tion to assess important subtle effects such as respiratory irritation that could occur at very low exposure levels. Despite the scientific basis for human testing, for nearly a decade there has been intense debate over whether EPA should rely on human data for pesticide registrations.

In early December 2001, EPA sought council from the National Academy of Science on the science and ethics of human testing and simultaneously announced that the Agency would not consider or rely on human data while the Academy was deliberating. CropLife America petitioned the U.S. Court of Appeals stating EPA's announcement to not rely on human data constituted a "rule" that was promulgated in violation of the Administrative Procedures Act. The court agreed and directed the EPA to reinstate its practice of accepting human studies unless and until the Agency lawfully promulgated a rule to change its practices.

In 2004 the National Academy of Science completed its work and published its findings. The Academy acknowledged the potential benefits of human data and recommended that EPA establish a Human Studies Review Board (HSRB) to review and to oversee the scientific and ethics issues surrounding Agency's use of human data.

In late 2005, EPA issued a proposed human studies rule that established the Human Studies Review Board as a Federal Advisory Committee and described the conditions under which the Agency would accept human data. In its proposed rule, EPA had excluded occupational exposure studies. This made sense because occupational studies are different from clinical studies because they are conducted during normal work activities guided by lawful pesticide labels. In its final rule however, and without public comment, EPA decided to include occupational exposure studies. This was a complete surprise to the pesticide industry because EPA had not sought guidance on occupational exposure studies from the National Academy and the Human Studies Review Board was not comprised of experts in these studies.

Furthermore, we question EPA's decision requiring the HSRB to determine the scientific validity of testing—such a requirement is duplicative because that determination has already been made by EPA using a wide range of other stakeholder and public input.

In the wake of the Review Board's rejection of several exposure studies designed according to existing Agency guidance, EPA is now awaiting review from yet another science advisory panel in 2007. This delay has halted the ability of the pesticide industry to collect occupational exposure data necessary to protect workers and will likely result in further confusion and inconsistencies between the Human Studies Review Board and the new Science Advisory Panel.

#### SOIL CONSERVATION

Herbicides have been used on more than 90 percent of US acreage of most crops for the past forty years. The use of herbicides has greatly reduced soil erosion, decreased the need for millions of hours of difficult labor by workers in the field, and has helped keep American agriculture competitive due to their low cost and high degree of effectiveness. The performance bar is very high for herbicides. Farmers expect more than 95 percent season long control of all key weed species in their fields with one or two applications and without injury to their crops. No other weed control technology is remotely close to delivering these benefits.

The USDA has reported that cropland soil erosion declined by 700 million tons per year between 1982 and 2003. This reduction has coincided with adoption of practices that conserve soil. No-till crop production, in which the soil is left undisturbed by tillage, is the most effective soil-conserving system. Elimination of tillage means that the grower must rely on herbicides to control weeds. No-till acreage increased to 62 million acres in 2004.

The external costs of soil erosion include higher susceptibility to flood damage, lost reservoir capacity, increased water treatment costs, and adverse impacts to waterway navigation and recreational activities. Research from the CropLife Foundation indicates that by reducing erosion from cropland, no-till reduces these external losses by \$1.5 billion per year. Of course, the farmer benefits too. With more soil staying on his land, the farm remains more productive and profitable.

#### LABOR AND ENERGY CONSERVATION

The use of herbicides greatly reduces the need for both fuel and labor on U.S. farms. Without herbicides, the need for fuel would increase by 337 million gallons, since twice as many cultivation trips would be needed to replace herbicide spray trips. Furthermore, cultivators use four times more fuel per trip than herbicide sprayers.

Herbicides also play a key role in U.S. ethanol production, a sector which is projected to expand to seven billion gallons in 2010. Corn is the primary raw material for US ethanol production. On average, herbicides increase U.S. corn production by 20 percent. If corn growers were unable to use herbicides, the decline in corn production would be equivalent to the total projected ethanol capacity of seven billion gallons.

If farmers did not use herbicides, the alternatives for weed control would be increased mechanical cultivation and increased hand labor to pull weeds. Research from the CropLife Foundation indicates that a minimum of 1.1 billion hours of hand labor would be required at peak season for hand weeding, necessitating the employment of seven million more agricultural workers. Even with the increased cultivation and hand weeding, crop yields would be 20 percent lower. Approximately 70 million workers would be needed to prevent any yield loss without herbicides.

Organic growers do not use herbicides to control weed populations, but rely on mechanical cultivation and laborers with hoes instead. Growers of organic vegetable crops spend close to \$1,000 per acre for weed control in comparison to the \$50 per acre spent by growers who use herbicides. Each acre of organic vegetables requires between 50 and 100 hours of hand labor for weed control. Each hour of labor is budgeted at \$10 which covers a minimum wage, plus administrative, supervisory, transportation and benefit costs. It should come as no surprise that the production of organic crops is being outsourced to countries such as Mexico and China where the cost of farm labor is \$1 per hour or less.

#### WATER CONSERVATION AND QUALITY

CropLife America's member companies know that protecting water quality and conserving scarce water resources in agriculture must often start in the laboratory, where products are developed, tested, and evaluated. Their efforts start with using the best science available to develop good products that can provide the needed results. This attitude and approach have led to major water conservation and water quality benefits in the U.S. and worldwide.

One excellent strategy to successfully conserve scarce supplies of water for agricultural and other critical uses is to develop crop varieties that are uniquely adapted to drought and other forms of weather stress. Our member companies have created plant varieties that are drought resistant or tolerant, allowing a crop to be produced with less irrigation and thereby conserving scarce water resources. We have also created plant varieties that have resulted in innovative crop production practices, like the use of pre-germinated rice seeds that require 15 to 20 percent less total water to produce a crop relative to more traditional rice production practices. Our science has also led to a crop protection product that can control weeds in rice production that previously could only be controlled through flooding rice land, thereby avoiding the use of water that could be better dedicated to other critical purposes. Of course, all herbicides for all crops are designed to control weeds that would otherwise compete with the crop for water.

Crop protection science and water quality protection go hand-in-hand. Over the 10-year process of developing and bringing a crop protection product to the market, our companies ask three primary questions related to water quality considerations:

- (1) Does the compound reach water and how?
- (2) How does the compound behave if it reaches water?
- (3) How does the compound affect water quality and impact living organisms?

Numerous rigorous scientific tests are conducted on a candidate compound and its metabolites to answer these questions. We also use the same science to determine if sound, reasonable and practical management strategies are available to ensure that the products can be used without unreasonable adverse water quality risks. The studies conducted involve identifying the compound's decomposition pathways within different crops, soils and water circumstances. Once the degradation patterns have been established, analysis methods are developed for measuring residues.

Other studies analyze the effects of the compound and its major metabolites on living organisms such as non-target insects, birds, soil and aquatic animals, and soil micro-organisms. Such trials are run not only during product development but also after their market launch. In fact, products are subject to continued monitoring and re-evaluation, taking into account the latest state of the art developments. As far as aquatic organisms are concerned, compounds are tested not only on fish, but also on algae and water-fleas. Overall great efforts are made to constantly improve the testing methods for the protection of even the smallest organism in natural water bodies.

Our companies are also continuously engaged in research and development to find ways to minimize the amount of water needed to spray crop protection products

while maintaining their efficiency and efficacy. New spray nozzles, for example, can reduce water consumption by approximately 80 percent, from 530 gallons per acre to 105 gallons. The use of low volume water-based sprays combined with application nozzles that target each crop row can decrease water use by 95 percent or more, from 210 gallons of water per acre to only 7 or 8.

Even after our products reach the market and are being used in the field, our member companies continue to pursue innovative and practical crop protection product management strategies. We have been leaders in the marketing and use of streamside buffer zones and filter strips as a way to improve water quality, reduce soil erosion, and increase wildlife habitat.

Likewise, our products also help conserve water in non-agricultural settings. One critical example is their use as part of an integrated program to control noxious and invasive plant species. For example, the salt cedar tree was originally introduced into the U.S. from Central Asia to combat soil erosion near rivers and lakes. But salt cedar is often able to thoroughly out-compete native plant species and in the process transpire enormous quantities of ground water into the atmosphere in arid environments. One mature salt cedar plant may withdraw up to 198 gallons of water per day. Where these trees have become established, they lower water levels in rivers, streams, and groundwater tables, reducing water supplies for urban, agricultural, wildlife and recreational uses. Crop protection products have been used in public initiatives as part of an overall management strategy in key areas of the U.S. to control salt cedar. In one prominent project in Texas and New Mexico, control of salt cedar with herbicides has resulted in an estimated increase of over 15 billion gallons of river flow during a year long season.

Our aquatic products also preserve and protect water quality through the elimination or control of noxious or exotic aquatic plant species in rivers, streams, lakes and estuaries. Like salt cedar, these alien invasive plants out-compete the native aquatic plants, and in the process diminish or eliminate plant biodiversity and degrade or destroy fish habitat. These invasive aquatic plants include species like Eurasian water milfoil, water hyacinth, hydrilla, purple loosestrife and *Melaleuca*. Used as part of an overall aquatic invasive plant management strategy, aquatic herbicides can selectively control populations of invasive plants and support the restoration of native plant communities and quality aquatic wildlife habitat. Control of these invasive plants can have substantial water conservation benefits because their sheer mass can impede or stop the flow of water and increase rates of evaporation and other pathways of water loss that would otherwise be used for irrigation.

#### WILDLIFE CONSERVATION

One often over-looked contribution that pesticides make is in the area of wildlife habitat restoration and conservation. Conservation scientists rank habitat destruction and nuisance plants as the two most serious threats to endangered species, both plant and animal. Many of our pesticides provide significant benefits for endangered species by reducing the amount of land needed to produce crops, thereby preserving critical wildlife habitat.

Equally important, pesticides increase the diversity and quality of natural habitat through the effective control of non-native or nuisance plants that seriously threaten endangered species as well as damage lakes and streams, farms and natural areas.

Two years ago, CropLife joined forces with one of the country's leading conservation organizations, Ducks Unlimited (DU), and established a Conservation/Technology Initiative. This unique partnership harnessed the power of crop science technology in conjunction with wildlife biologists' expertise to reduce the abundance of unwanted exotic grasses and other weeds at wildlife refuges and other sites where DU seeks to restore native grasslands. The key here is to use herbicides and fungicides to suppress the weed growth long enough for native grasses to reestablish themselves. Because many native plants are perennials, once reestablished, they can flourish for decades under proper management.

This initiative also conducted a demonstration pilot project to show how the use of certain pesticides could enable farmers to economically switch to winter wheat from spring wheat in the northern plains-again to the benefit of duck populations.

CropLife member companies are in the second year of this five-year partnership with DU and the results are already very encouraging. Habitat restoration is well underway at 20 sites nationwide, and the benefits to waterfowl and other wildlife are being recorded. Beyond the contributions being realized for wildlife conservation efforts, these projects are also having a beneficial ripple effect for outdoor enthusiasts. At a number of the areas, control of nuisance plants and weeds is helping aquaculture, water-related recreational activities, hunting and fishing, bird watching and natural scenic restoration.

## ECONOMIC BENEFITS OF PESTICIDES

Fungal pathogens are implacable enemies of crop production in the United States. Every spring and summer, fungi release countless numbers of reproductive spores into the environment. If a spore lands on a susceptible host plant under the right conditions, it will grow a germ tube and penetrate the host plant's tissues. The resulting fungal infection will cause the plant to fall ill, rot, and eventually die. The use of fungicides to protect crops can prevent or cure such infections, preserve crop yields, and protect farmers' income.

Uncontrolled plant disease epidemics have altered human history, determining the outcome of wars, starving millions of people, and contributing to the decline of civilizations. The unavailability of fungicides left farmers and their dependent civilizations defenseless against plant diseases.

Prior to the 20th century, much of the nation's fruit and vegetable crop typically rotted following infection by plant diseases. In the early 1900's, elemental fungicides provided defense against many fungal diseases as copper and sulfur sprays became common. Most fruit and vegetable crops have been treated with fungicides for the 100 years since initial adoption.

The introduction of synthetic fungicides in the 1940's revolutionized chemical control of plant disease. Newly discovered fungicidal molecules were rapidly adopted by U.S. farmers for their expanded range of disease control and reduced toxicity to crop plants. The replacement of many sulfur and copper sprays with synthetic fungicides, which are used at significantly lower rates, reduced the aggregate total amount of fungicides applied to U.S. crops by 50 percent.

The Crop Protection Research Institute (CPRI), an arm of the CropLife Foundation, recently concluded a major study on fungicide benefits in the U.S. For 231 diseases of 50 crops, fungicides are the primary means of defense from fungi. Each year, American growers spray 108 million pounds of fungicides at a total cost of \$880 million. If left untreated, yields of most fruit and vegetable crops would decline by 50 percent to 95 percent. Growers gain \$12.8 billion in increased production value from the control of plant diseases with fungicides.

CPRI has done similar research on herbicide benefits. U.S. farmers have sprayed herbicides on close to 90 percent of the nation's cropland acreage for the past thirty years. The value of the use of herbicides in 2005 is estimated to have been \$16 billion in increased crop yields and \$10 billion in reduced weed control costs. Without herbicides, the largest production loss would be in corn, with a reduction of 2.7 billion bushels.

Increased fuel and labor costs have made the costs of alternatives to herbicides higher. The aggregate cost of cultivation and hand weeding as replacements for herbicides increased from \$14.3 billion in 2001 to \$16.8 billion in 2005, resulting in a net increase in weed control costs without herbicides from \$7.7 billion in 2001 to \$10 billion in 2005. The value of the crops also increased significantly between 2001 and 2005, which means the 20 percent loss in production without herbicides is worth more in 2005 (\$16 billion) than in 2001 (\$13 billion). Overall, the value of herbicides to U.S. agricultural production increased from \$21 billion in 2001 to \$26 billion in 2005.

Three trends that occurred in crop production and weed control between 2001 and 2005 are noteworthy, relating to no-till, biotech, and organic crop production. Two of these practices are dependent on herbicides and one is not. The number of no-till acres on which herbicides substitute for tillage increased from 52 million acres to 62 million acres. The U.S. acreage planted with genetically modified herbicide-tolerant crops increased from 66 million acres to 94 million acres. Meanwhile, organic agricultural production increased by 100,000 acres to 1.4 million acres. Organic farmers substitute labor and tillage for herbicides, which is very costly. There is not likely to be a vast expansion in domestic organic acreage due to the high cost of labor in the U.S. in comparison to many developing countries.

Mr. Chairman, thank you again for the opportunity to share our views with the committee.

