PROPOSED REGULATIONS BY THE ANIMAL AND PLANT HEALTH INSPECTION SERVICE TO ESTABLISH PROHIBITIONS AND RESTRICTIONS CONCERNING IMPORTED NONMANUFACTURED WOOD ARTICLES

HEARING

BEFORE THE

SUBCOMMITTEE ON SPECIALTY CROPS AND NATURAL RESOURCES

OF THE

COMMITTEE ON AGRICULTURE
HOUSE OF REPRESENTATIVES

ONE HUNDRED THIRD CONGRESS

SECOND SESSION

JUNE 29, 1994

Serial No. 103–87

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REVIEW OF PROPOSED REGULATIONS BY THE ANIMAL AND PLANT HEALTH INSPECTION SERVICE (APHIS) TO ESTABLISH PROHIBITIONS AND RESTRICTIONS CONCERNING IMPORTED NONMANUFACTURED WOOD ARTICLES

WEDNESDAY, JUNE 29, 1994

HOUSE OF REPRESENTATIVES,
COMMITTEE ON AGRICULTURE,
SUBCOMMITTEE ON SPECIALTY CROPS
AND NATURAL RESOURCES,
Washington, DC.

The subcommittee met, pursuant to call, at 10:15 a.m., in Room 1300, Longworth House Office Building, Hon. Charlie Rose (chairman of the subcommittee) presiding.

Present: Representatives Baesler, Condit, Clayton, Thurman, Inslee, Pomeroy, Stenholm, Peterson, Volkmer, Doolittle, and Kingston.

Also Present: Representatives Smith of Oregon and DeFazio.

Staff Present: Glenda L. Temple, Hearing Clerk.

OPENING STATEMENT OF HON. CHARLIE ROSE, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF NORTH CAROLINA

Mr. ROSE. The hearing will please come to order.

Our first witness is the Honorable Peter DeFazio, Members of Congress from Oregon.

We are here to review proposed regulations by the Animal and Plant Health Inspection Service to establish prohibitions and restrictions concerning imported nonmanufactured wood articles.

Mr. DeFazio, please proceed.

[The prepared statement of Mr. Rose follows:]

Opening Statement of Chairman Rose

Subcommittee on Specialty Crops and Natural Resources

June 29, 1994

Good morning. I thank everyone for attending today's hearing. The purpose of this hearing is to review the proposed regulations by the Animal and Plant Health Inspection Service to establish prohibitions and restrictions concerning imported nonmanufactured wood articles.

This is a very serious problem that warrants some serious attention. Introduced pest and pathogen infestations pose a critical threat to our national resources. I am all too familiar with this problem first-hand as my home district in North Carolina is currently experiencing a problem with the Asian gypsy moth. At present we are waiting to see if eradication treatments were effective. If we have the ability to identify and treat this potential enemy, we must do whatever is within our capacity to make sure that we eliminate this threat before it reaches or shores, rather than spend millions trying to control its spread.

We are fortunate to have representatives from both APHIS and the Forest Service here today to tell us just how they intend to deal with this growing threat. We also have with us, Congressman Peter DeFazio from Oregon, whose ~~state and federal~~ forest lands are at high

risk from the potential pest and pathogen infestations unless adequate regulations are passed.

I look forward to your testimony, as well as the testimony of all of today's witnesses.

If there are no further comments, we will commence the hearing.

STATEMENT OF HON. PETER A. DeFAZIO, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF OREGON

Mr. DEFAZIO. Thank you, Mr. Chairman.

I want to thank the Chair for holding this very important and timely hearing. I would ask that the full text of my remarks be entered into the record and I will summarize in the interest of time.

Mr. ROSE. It will be done for all witnesses and you certainly. Thank you.

Mr. DEFAZIO. Thank the Chair.

Again, the major concern I have on this issue, as the Chair is aware, a number of years ago I asked for a pest risk assessment on the Siberian log imports, and we have what was I would say the most comprehensive report done on that issue. It pointed to very significant potential problems for forest resources in the United States from exotic pest imports, and also pointed to a very vigorous treatment regime under which we could reduce the risk dramatically.

Unfortunately, in the case of New Zealand and Chilean timber, the treatment regimes and the risk assessments were nowhere near as rigorous as those that were done for Siberian timber. We all know the sorry history in this country, Asian Chestnut blight, Dutch Elm disease, white pine blister rust, Port Orford Cedar root rot. Some we still do not know nor can we identify from whence they came, but we know they are exotic imports. Others, such as Port Orford Cedar root rot, came from a Seattle nursery, from a foreign import in the 1920's, and has spread throughout the region. Some others we are not quite certain but we know they were exotic imports.

White pine blister rust is estimated to have infected pine stands covering more than 9 million acres in the West, and more than $100 million has been spent on what have been pretty largely ineffective control efforts and it continues to spread and take a toll.

So the question is what are we potentially exposing ourselves to here? Seems to me that both APHIS, now joined by apparently testimony from the Forest Service, is not taking its responsibility seriously. Its responsibilities are not to maximize the profits of log importers. Their responsibility is to place the health of U.S. forests first, and I fear that in this case undue lobbying has convinced them to adopt what are very shortsighted and inadequate restrictions for pest and pathogens on logs from New Zealand and Chile.

We will hear from a number of scientists, and I would urge the agency advocates who are here to listen to the scientists who will follow them on a panel. I don't believe there is a single scientist who is going to support what they have proposed.

I would say, Mr. Chairman, that under their proposed regulations it is not a question of whether we will introduce some new white pine blister rust or some new Port Orford Cedar root rot or something else, it is when and how quickly it will spread and how dramatic the problems will be.

There is no scientific justification for their less rigorous standards, and, in fact, they seem to recognize that in their regulations because they have imposed some laughable post import protections, such as the visual inspection of ship loads of logs in Coos Bay.

Of course, APHIS has two inspectors in Oregon. They are busy with a few other things, such as our nursery crops, Christmas trees, gypsy moths, et cetera, et cetera. But those two inspectors will occasionally wander down to Coos Bay and look at a few logs, take a few borings out of the many ship loads that come there.

The borings will be analyzed within a few months, after the logs have already gone to a mill site and been milled into lumber. And if they find something alarming, they will ring the alarm bell after the disease has begun to spread throughout our forests.

This is absurd. It cannot be scientifically justified and I think the potential for catastrophe is phenomenal. It would not be very much more expensive to require more thorough heat treatment and other things which would prevent such possible catastrophes. Very little when you compare it to the current price of logs. And I would urge that the committee listen critically today and hopefully communicate its concern to these agencies and get them to do their job properly.

I thank the Chair and would ask if the Chair would after my questions allow, I would like to sit with the subcommittee.

Mr. ROSE. You certainly are welcome to sit with the subcommittee. Are there any comments or questions?

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

Mr. SMITH of Oregon. Mr. Chairman?

Mr. ROSE. Mr. Smith.

OPENING STATEMENT OF HON. ROBERT F. (BOB) SMITH, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF OREGON

Mr. SMITH of Oregon. Mr. Chairman, thank you again for allowing me to sit with the——

Mr. ROSE. I thought you were a Member of this subcommittee, but go ahead.

Mr. SMITH of Oregon. I am here more than your Members, I think, Mr. Chairman. The subject matter draws me, as you might understand.

Mr. ROSE. I understand.

Mr. SMITH of Oregon. Thank you very much. Just to review with Peter for a moment and then ask him a question, Mr. Chairman, this whole question of harvested timber has pinched the Northwest, as you well know. This country came from 12 billion board feet to production now of about 4 billion board feet.

The Clinton administration's Option 9, as my friend from Oregon knows, has shut down about 85 percent of the harvestable timber in the Pacific Northwest, causing about a 68,000 job loss in Oregon alone; causing, again, our mills, who are still alive, to reach out across the world literally trying to find enough wood to sustain their mills and the remaining employment.

I have mills and mill people that are now in Russia. One of my friends is in Lithuania building a mill. Others are reaching to New Zealand and Chile and across the world, even into Indonesia, trying to find wood products.

We know the average cost of a house in America as a result of this artificial shortage has raised by $5,000, eliminating the possi-

bility of many to reach their dream of owning their own home with rising interest rates, and amongst all of that is now the charge here that somehow APHIS is not doing its job, and I wanted to quote from the Forest Service analysis for the record, Mr. Chairman, and then ask Peter a question.

In the New Zealand issue, and I am quoting, the team members screen the 30-year computerized list of insects and diseases reported there. A screening procedure was developed to focus on species that represented these groups of organisms identified as having the greatest risk, and they list them all, and all pest analysis were approached from the assumption that New Zealand would institute their mitigation procedures. That seems rather thorough to me.

The question on Chile, a six-member team of forest pest specialists provided technical expertise from the disciplines of forestry, entomology, pathology, ecology, and economics. Three of the team members previously worked in Chile. The team members met with all of the Chilean government people, industry people, and, in addition, the pest risk assessment document prepared by the team takes into consideration comments by people in Government agencies, universities, private forest industries in the United States, Canada, and Chile.

That seems, Peter, to me, to be a rather in-depth analysis of what is going on, at least in Chile and in New Zealand. You are suggesting that somehow APHIS is not doing its job.

Mr. DEFAZIO. Yes.

Mr. SMITH of Oregon. How does this mark with your analysis of what is going on?

Mr. DEFAZIO. Well, I would urge that the gentleman apply the same degree of skepticism to the so-called expert panels that have formulated these rules that he has to other actions by the Department of Agriculture regarding forest products. And in this case, they seem to have ignored the preponderance of scientific evidence that is out there and comments from our own people at Oregon State University.

For instance, methyl bromide is effective perhaps 4 inches into a log. Well, many pathogens, and particularly fungi, and other things which other people can speak to with more authority than I, similar to white pine blister rust and other devastating exotic imports, they are not insects that live on the log or insects that bore into the log. They are not evident. They are deeper within the log, and methyl bromide will not do it.

They will then be under the APHIS guidelines. They admit, actually, there is a problem because they do want heat treatments, but that will be within 60 days after the logs arrive in the United States and it is not heat treatment which reaches the standards which were recommended in the report on the Siberian logs. So the heat treatment is inadequate, and that 60 days later, which certainly gives time for things to escape from the logs into the yards and elsewhere, such as Port Orford Cedar root rot which is spread by mud, or fungi in mud.

So they are admitting essentially that, yes, we are going to do visual inspections like 35 out of 30,000 logs on a ship. We will get the analysis back a few months later after we have sent those logs

to several other places and already milled them. The sawdust has to be segregated. Do you think the mills are really going to segregate the sawdust and burn it from these logs?

They are admitting there is a continuing problem. It could be simply solved at very little expense. Heat treat the logs thoroughly in New Zealand and Chile. It would not be that expensive and it would avoid the risk.

Why take the risk? Why give someone a buck a thousand or two bucks a thousand additional profit to risk the entire ecosystem of the West? Does not make sense to me.

Mr. SMITH of Oregon. So you are not advocating the elimination of imports of logs or wood products; you are more concerned about the scientific mitigation possibility of insect introduction?

Mr. DEFAZIO. That is correct. And from the beginning I have said what I want to see is these logs treated in such a way, starting with the Siberian logs to absolutely minimize risk. And the Siberian recommendations, I think, were pretty thorough.

Mr. SMITH of Oregon. So we will listen to the scientists also to determine whether you are right or wrong.

Mr. DEFAZIO. Sure, but, again, obviously, treat everybody with the same degree of useful skepticism you usually treat experts.

Mr. SMITH of Oregon. Your experts or mine? Thank you, Mr. Chairman.

Mr. ROSE. Any other questions? I think you should just come on up here and sit with us.

Mr. DEFAZIO. Thank you, Mr. Chairman.

Mr. ROSE. And let's move on to Mr. B. Glen Lee, the Deputy Administrator, Plant Protection and Quarantine, APHIS; accompanied by Michael Rains, the Deputy Chief of the Forest Service, accompanied by Dr. Nancy Lorimer.

All the witnesses' testimony will be totally included in the record. You can use your own judgment. It will be up to you as to how much you use or whether you summarize or not.

Mr. Lee, you proceed, sir.

STATEMENTS OF B. GLEN LEE, DEPUTY ADMINISTRATOR, PLANT PROTECTION AND QUARANTINE, ANIMAL AND PLANT HEALTH INSPECTION SERVICE, U.S. DEPARTMENT OF AGRICULTURE AND MICHAEL RAINS, ASSOCIATE DEPUTY CHIEF, FOREST SERVICE, ACCOMPANIED BY NANCY LORIMER, FOREST PEST MANAGEMENT DIVISION, FOREST SERVICE

Mr. LEE. Thank you, Chairman Rose and Members of the subcommittee.

Mr. ROSE. You are the Deputy Administrator for all of APHIS.

Mr. LEE. For the plant protection and quarantine section of APHIS. Within APHIS, we have the four major components. There is veterinary service, international services, the biologics, biotechnology, and environmental protection and plant protection.

Mr. ROSE. What is biologics and biotechnology?

Mr. LEE. That is the unit that does most of the evaluations on environmental science and technology; evaluating the risks associated with a product that goes through the process of genetic manipulation.

Mr. ROSE. Thank you. Go ahead, Doctor Lee.

Mr. LEE. It is my pleasure to appear before the committee today to discuss a proposal of the U.S. Department of Agriculture's Animal and Plant Health Inspection Service to establish guidelines for the importation of logs and lumber. This is an issue of emerging importance to APHIS and the American public, and one that sparks fairly intense debate among the number of interested parties, including scientists, environmental organizations, and timber-related industries.

Mr. ROSE. What other groups does it spark intense debate among? You left out certain ones, I realize, but.

Mr. LEE. The environmental groups.

Mr. ROSE. I got that; scientists, environmental groups and timber-related, but what other groups?

Mr. LEE. The scientists generally at State departments of forestry, academia, those are the groups that have a large interest in the topic.

Mr. ROSE. Well, I am assuming that they are all the ones that are concerned about the infestations that may come along with the logs. I am assuming there is another side. To have a debate you need two sides. What is the other side?

Mr. LEE. The other side is the industry-related products that have the interest in the importations.

Mr. ROSE. All right. Go ahead, sir.

Mr. LEE. With the time that I have before you, I would like to explain the history and rationale behind the regulations and to include the effects that they could have on the agricultural and forest health if those regulations as proposed are approved.

To begin, I would like to provide a brief synopsis of the events that led to the development of the regulations.

The U.S. is rich in forest resources and because of this, we historically have imported only very small quantities of foreign logs and lumber. Most of these imports have come from parts of Canada, where the climatic and pest conditions are quite similar to our own. Therefore, there was no need for regulations governing the importation of wood from distant countries where exotic forest pests of concern exist.

However, in the late 1980s several complex environmental, economic, and strategic forces combined to reduce the amount of harvestable timber in this country, while, at the same time, timber resources and supplies worldwide were on an increase.

Siberia was one of the first of several regions to express an interest in supplying the U.S. timber industry with raw wood. We agreed to allow log shipments in on a trial basis to determine what pest problems might be associated with the wood. We worked very closely with the States of California, Washington, and Oregon to evaluate the two test shipments of the Siberian logs that were authorized. Our inspection detected a number of pests in the untreated bark and the wood that could have been harmful to our forests.

Concern over the pest risk associated with the test shipments prompted APHIS to ask the Forest Service to conduct a detailed pest risk assessment on Siberian larch. Scientific experts from a wide range of institutions and disciplines participated in the risk assessment. The results of this assessment indicated that a high

pest risk was linked with the unregulated importation of raw Siberian larch logs.

Soon after that, based on requests to allow shipments in from Chile and New Zealand, APHIS asked the Forest Service to conduct two additional pest risk assessments. APHIS used the risk assessment that had been developed and the mitigation measures to minimize the potential for plant pest introductions into the U.S. Since then, we have published interim rules that provide for the safe importation of Monterey pine logs from Chile and Monterey pine and Douglas fir logs from New Zealand.

During the course of these actions, it became apparent that it was necessary to develop comprehensive regulations to govern the importation of timber and timber products on a worldwide basis. Therefore, in January of this calendar year we published a proposed rule in the Federal Register that would establish general guidelines for the importation of logs, lumber, and other unmanufactured wood products. Under these guidelines, importers would be able to import logs from any country under universal treatment requirements that include debarking and heat treatment.

If an importer finds meeting these universal requirements commercially impractical, the importer can request that a risk assessment be conducted for a specific product. In this case, other treatment alternatives may be approved. The proposed rule would also incorporate two previous interim rules that establish specific treatment requirements for logs from New Zealand and Chile.

In the proposed rule, we solicited public comments and have received about 80 written comments. We are still in the midst of the administrative rulemaking process, so I am not at liberty to discuss the final action at this time. However, I assure you that every comment that was received during the comment period and in response to the proposed rule will be considered and addressed in the final rule.

In another attempt to gauge general public opinion on this issue, we held two well-publicized public meetings, one in Portland, Oregon, and the other here in Washington. Attendance at the Portland meeting was very good. Public comment there indicated unanimous support for APHIS' attempt to establish regulations for the importation of logs and lumber; but there were differences expressed as to the degree of restrictiveness that should be in the regulations. We convened the second meeting here, as indicated, in Washington. There were no oral comments presented.

In addition to soliciting public comment on the proposed rule and holding the public meetings, we have also developed a draft environmental impact statement which was published two months ago. The draft EIS examines six alternatives with varying degrees of restrictiveness, including a no action alternative. On this proposal we received 34 written comments that express a variety of points of view. We are in the process of preparing the final EIS now and expect that we will publish it sometime at the end of the summer.

The principal rationale behind our proposal was to protect the agricultural and natural resources of this country by preventing the entry of foreign diseases and pests. We gathered the best information available from industry, academia, environmental organizations, the Forest Service, and other governmental agencies and

used that to arrive at the proposal which we believe is balanced and fair.

Second, we strove to achieve a balance among the interested parties' views. We understand the logging industry's need for wood and appreciate the changes that have occurred in that industry in the last several years. We also understand the environmental perspective and the repercussions our actions could have on our national forests and the recreational lands.

Thirdly, we believe that any policy affecting trade should be based on sound science. These proposed regulations provide a legal platform to apply sound science to the regulation of timber products.

We are fortunate to enjoy a very positive and productive partnership with the Forest Service. We continually rely on their expertise in technical forestry issues, and their assistance with this particular issue has been invaluable.

Before coming here this morning, I made a quick review of the programs we at APHIS are conducting around the country and discovered that we have a major pest or disease eradication or management program under way in almost every State represented by this subcommittee.

Many of the States represented here currently have infestations of gypsy moth. Other States represented here recently have been forced to deal with the pine shoot beetle and the effects it has had on Christmas trees and other forest product industries.

These are just two of the pests we must address by enforcing restrictions and guidelines on the importation of foreign agricultural commodities.

Our proposed regulations not only provide the first mechanism for the importation of unprocessed wood, they also stipulate specific treatments and procedures required to bring raw wood into our country that will protect our natural and agricultural resources from foreign pests and diseases.

Timber imports have not been tremendously problematic in the past mainly because the volumes have been extremely low. But as interest in importing raw wood grows, so does the risk of importing harmful pests and diseases. We are responsible to the American people to make sure exotic pests and pathogens do not enter our country along with imported wood products.

Mr. Chairman, I thank you for the opportunity to discuss this issue with the committee, and I am happy to answer any questions that you or committee Members may have.

Mr. ROSE. Thank you very much.

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

Mr. ROSE. Mr. Rains.

STATEMENT OF MICHAEL RAINS

Mr. RAINS. Thank you, Mr. Chairman, other Members of the committee. I am with the Forest Service, and I am with Dr. Nancy Lorimer from our Forest Pest Management staff.

I am the Associate Deputy for State and Private Forestry. That is one of the major branches in the Forest Service and our responsibilities are to help manage and protect the non-Federal lands,

and Forest Pest Management comes within our branch of the organization.

I am here to specifically offer the Forest Service views on APHIS' proposed rule on logs, lumber, and unmanufactured wood articles.

First of all, we strongly do support the proposed rule and would like to acknowledge the hard work that APHIS has done in taking over this leadership role. It is valuable and it is extremely needed.

The proposed rule will help protect America's forests from introduced pests. Before this proposed rule, I know you know this but I want to underline it, the U.S. was one of the few major countries without this type of firm and rigorous regulation. It is important that we have some regulation like this.

With the increase of global markets opening up new sources of importing logs, the rule is timely. We feel like the proposed rule will clarify trade requirements. In essence, it lets importers clearly know what they are up against in trying to get their products to the market more quickly.

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

Mr. ROSE. Can I interrupt you here? Let me just see if we can shorten this a little bit. We have a lot of witnesses.

Is there anybody on the subcommittee that thinks these regulations are too tough? Anybody here that thinks they are too tough?

Okay, I think my concern is they are not tough enough and I wish you would talk to that. Convince me that you have done enough, Mr. Rains, because I kept some questions for Mr. Lee about other exotic pests in a minute that do not necessarily mess with your timber.

Mr. RAINS. Let me do that in two ways. First of all, I will introduce in general the rigor we think we have applied and then let me——

Mr. ROSE. Talk to us about the specific things you propose to do to imported logs and—you know, I read—originally it was heat treatment for everybody; is that right?

Mr. RAINS. Why don't I let Dr. Nancy Lorimer talk to that since she was on the risk assessment.

Mr. ROSE. Your whole statement is a part of the record. Let's talk about where you have cut corners here so far as protecting America's forests. That is like when did you stop beating your husband, but go ahead.

Ms. LORIMER. Thank you for this question, Mr. Chairman. The Forest Service role in this whole process has been to perform the risk assessments and this technical information is by APHIS to promulgate their regulations.

So we did the three risk assessments; one for Siberia, one for New Zealand, and one for Chile, and as everyone has stated so far, the Siberian pest risk assessment showed there was extreme risk for logs from that source, and APHIS decided to require heat treatment. I guess no one here is arguing with that point at the moment.

Then we moved on to the New Zealand and Chilean pest risk assessments. They were very thorough; they involved extensive peer review, as Mr. Smith has already indicated. They were very extensive risk assessments. The risk was identified and then APHIS

again took that biological and scientific information and promulgated regulations based on the risk identified there.

It was thought that these other mitigation techniques outside of heat treatment were adequate to deal with the risks identified in the assessments.

Mr. ROSE. What are the other treatments? Heat treatment is you heat the logs in some kind of vessel.

Ms. LORIMER. Correct, to a certain temperature for a certain period of time.

Mr. ROSE. Like in the wood preserving process.

Ms. LORIMER. Right. Or kiln drying or something of that sort. Then there are all sorts of other regulations.

Mr. ROSE. I don't want to know about the regulations but the process.

Ms. LORIMER. The mitigation process, yes, sir.

Mr. ROSE. Yes, ma'am.

Ms. LORIMER. Things like the time between the felling of the trees and the time before they are allowed to go on the ships; debarking, is very important to get rid of bark beetles near the bark; the way the shipment is transferred on the boats, whether they are covered or not. They have to be covered so that they are not reinfested. Inspection procedures, once they arrive in port. Fumigation is an important item.

All of these mitigation procedures APHIS has chosen to precisely meet the risk from specific insects and diseases that were identified in the risk assessment.

Mr. ROSE. Okay.

Ms. LORIMER. If you could picture a matrix where you would have the particular species of insects and diseases down one side, and then you would have all the possible mitigation treatments going along the top, you would put a check mark in the ones that would deal with specific insects and specific diseases, and when you look at such a matrix, there is lots of overlap. Methyl bromide fumigation might take care of a particular insect but also debarking would as well.

Mr. ROSE. Who would pay for that? Aha, we found a good one here. Who is going to pay for this?

Ms. LORIMER. These are all industry requirements.

Mr. ROSE. So the importers would pay for it?

Ms. LORIMER. Yes.

Mr. ROSE. All right. If you do not mind, I think we got that. I would like to let the Members ask some questions now, and all of your statements are in the record, and I would like to start with the Members of the subcommittee first, if they have questions. If you all will seek recognition, I will call on you.

Any Members of the subcommittee seek recognition to ask a question of this panel of witnesses? Mrs. Thurman.

Mrs. THURMAN. Ms. Lorimer, in our full committee when we did the reorganization, we offered an amendment to the organization bill on risk assessment of having an office set up there. It sounds to me like you use risk assessment in your analysis in looking at these things. Do you have any objections for an office of risk to be set up?

Ms. LORIMER. No, I think that this whole process of risk assessment is one that is developing and is becoming extremely important as time goes on, and the process that we use is one that was recommended by the National Research Council.

Mrs. THURMAN. I thank you.

Mr. ROSE. All right. Mr. DeFazio, Members of the subcommittee, any other questions? Mr. Volkmer, former Chairman of the subcommittee.

Mr. VOLKMER. In the meantime, are we permitting any logs to be imported from any of these countries?

Mr. LEE. Yes, we are, sir.

Mr. VOLKMER. Where are they coming from?

Mr. LEE. Chile and New Zealand.

Mr. VOLKMER. And New Zealand right now?

Mr. LEE. Yes.

Mr. VOLKMER. And where are they coming into?

Mr. LEE. Mostly into the ports of Seattle, in Washington.

Mr. VOLKMER. Somebody I understand in the audience said Coos Bay; is that right? I see a lot of people shaking their head yes. Do we not know?

Mr. LEE. Yes, we do know; I do not know specifically.

Mr. VOLKMER. Anyway, they are coming into the Northwest?

Mr. LEE. Yes, sir.

Mr. VOLKMER. What is happening to them when they get there?

Mr. LEE. They are coming in under the provisions of the interim rule that was published about a year ago. We do the inspection that is required to follow up on the shipments that have arrived, and I believe the record would indicate that we have had 12 shipments since we published the interim rule about a year ago.

We have not found any problems associated with those shipments that have arrived.

Mr. VOLKMER. Now, you have not found any. How long does it take to process and get the lab results back on the testing that is done on the logs?

Mr. LEE. It is a matter of days, not of weeks or months. There are these particular pathogens that must be tested for and, dependent upon the disease, that dictates the time it takes to do the analysis.

Mr. VOLKMER. I was wondering here because I was reading something here, what is the test time?

Mr. LEE. Depending upon the disease and the point of origin, it can go up to 90 days.

Mr. VOLKMER. What happens to the logs in that time, in that 90-day period?

Mr. LEE. In some cases the logs—well, that would be a theoretical question, Mr. Volkmer.

Mr. VOLKMER. Let me ask you this. I have been reading a statement here by somebody involved a little bit in this out in Oregon, and I am under the impression that you have your people do the boring and et cetera and get the test product and then it is taken off and then the logs are released. And then, later on, you find out whether there were any pests or not in them or if there is any disease, but the logs are already gone. Is that the procedure?

Mr. LEE. That is partially correct. The importation is allowed based on the requirements having been met. We do the testing, we release those logs to a designated mill for processing. The conditions that have been stated for the release of those logs is to dispose of the waste, the sawdust, or the shavings or whatever comes off in the milling process, is taken care of, so if there were any potential problems associated with that importation, those safeguards together would take care of any potential problem.

So it is not, the release is not dependent entirely on that lab analysis in the cases that have occurred.

Mr. VOLKMER. Well, the release precedes the analysis being done; correct?

Mr. LEE. The release does precede the analysis being completed.

Mr. VOLKMER. Right. And as far as it could happen that those logs could be all sawed up and everything else before the lab analysis is completed.

Mr. LEE. If those logs that would have arrived came from a country in which we had not done a risk assessment, and we suspected given the information about the pest and diseases in that country of origin, we would very likely hold those logs until the analysis had been completed.

Mr. VOLKMER. I am curious to see what the gentleman from Oregon is going to ask you about, but I would like to add, unless—would the gentleman from Oregon yield to me just a minute? I want to ask the gentleman from Oregon a question.

Mr. DEFAZIO. Yes, certainly.

Mr. VOLKMER. I would like to ask the gentleman, do you have the data information from APHIS on the 12 shipments that have come in from Chile and New Zealand as to the results of the testing protocols?

Mr. DEFAZIO. I have not seen the results. I do know, if the gentleman would further yield, that Mr. Lee was incorrect. There was a problem with at least one shipment in Coos Bay where there were cedar logs in the shipment which were quarantined and impounded because they were not—there was no regimen for those logs. So it has not been a faultless process even as proposed.

Mr. LEE. That is exactly right, sir. But those were not allowed under the interim rules. So they would have been impounded regardless of whether there were interim rules or not.

Mr. VOLKMER. Mr. Lee, I would reclaim my time and ask you to furnish to the committee, and to me specifically, the results of all the shipments, the testing protocol on all the shipments received so far from Chile and New Zealand.

Mr. LEE. We shall do that.

Mr. VOLKMER. Thank you.

Thank you, Mr. Chairman.

Mr. ROSE. Thank you.

[The information appears at the conclusion of the hearing.]

Mr. ROSE. Other questions? Comments? Mr. DeFazio.

Mr. DEFAZIO. Thank you, Mr. Chairman.

Ms. Lorimer, have we identified all possible pests, diseases, pathogens in Chile and New Zealand?

Ms. LORIMER. If I could just speak to the Chilean pest risk assessment just as an example, I would say that it represents the

state-of-the-art in terms of what is currently known about the pathology and entomological situation of tree pests in that country. We went to great lengths to accumulate in one place all of that information.

However, Mr. DeFazio, it is also true that there are things in the forest that we do not know about, things that have not been studied, and this is a recognized difficulty with risk assessments, that you cannot put a risk on something you do not know about.

Mr. DEFAZIO. Okay.

Mr. Rains, in your statement you say the highest probability of foreign pest establishment is from countries with a climate and host trees similar to the United States. I live in the Northwest. You do not. Maybe you are not familiar with our topography, climate, et cetera, but I think we are quite similar to New Zealand.

Mr. RAINS. There are risks not only for climates that are similar, but let me add also, dissimilar.

Mr. DEFAZIO. But you say the highest probability. So we are dealing with a high probability country here.

Mr. RAINS. That is correct.

Mr. DEFAZIO. Okay. I guess—I mean here is the—I mean, Dr. Lattin, and we are a little hampered by the order here, but I will put his questions to you because he will not get a chance to ask them. His statement here is, I find it curious the revised test shipment protocol produced and released in March 1992 and presented to the Forest Service has not only been ignored by APHIS but modified in ways not explained. He talks about the treatments being represented to be done at points of origin, not after arrival in the U.S., and that more thorough heat treatment applied at point of origin was recommended.

And his question is, why were those recommendations altered? I guess I would like to know why did we alter those recommendations? Why do we not require thorough heat treatment in line with those recommendations at the point of origin, and would that not further reduce any possible risks?

Ms. LORIMER. The test shipment protocol meeting Dr. Lattin refers to was in relation to shipments from Siberia.

Mr. DEFAZIO. I am aware of that, but the question is, if it is necessary for known pathogens in Siberia and desirable, why is it not necessary and desirable for unknown pathogens in New Zealand? Why not require that? Why would we not require that?

Give me a scientific reason why we would not require heat treatment at point of origin. Does it somehow encourage or increase risk or would it decrease the risk?

Ms. LORIMER. The other mitigation procedures would be required at the point of origin . . . the methyl bromide and debarking.

Mr. DEFAZIO. What is the penetration of methyl bromide?

Ms. LORIMER. As has already been stated, about 4 inches into the wood.

Mr. DEFAZIO. Is there nothing below 4 inches that we are worried about?

Ms. LORIMER. The pest risk assessments did not turn up biological organisms that would be in the wood, given the particular protocol that the trees would be raised——

Mr. DEFAZIO. I am getting very bureaucratic answers. As a human being and someone who lives in the United States, why would you not say yes, I think if it is the most thorough possible treatment to require heat treatment at the point of origin that it would be a good idea for the U.S. to require that? Give me reasons as a scientist, as an individual, however you can answer it.

Ms. LORIMER. You have a risk identified and you have a technique to counteract the disease.

Mr. DEFAZIO. Why would we do heat treatment in the United States? Obviously, there is some risk or we would not require heat treatments on this end. Why do we require heat treatment on this end after a log—have you ever been at a log sort yard?

Ms. LORIMER. No.

Mr. DEFAZIO. No. Okay. Let me explain. In log sort yards, logs look kind of alike and there is a lot of confusion, and these are not exactly run by scientists.

There is bark, dust, logs, everything all over the place. People running back and forth with machines that pick them up and move them around, and we have to process them. So we have to be sure we have segregated these logs from other logs which are coming in from other parts of the world or the United States, and they get the heat treatment. And usually log sort yards are kind of located in rural areas, so forests sometimes grow right up to the edge of them.

Now, are you familiar with cedar root rot?

Ms. LORIMER. Yes.

Mr. DEFAZIO. The Port Orford problem?

Ms. LORIMER. Yes.

Mr. DEFAZIO. We have somehow now decided it is some spore that gets in mud and is spread by equipment; is that correct? Or are you aware of that? It can be moved about and in mud.

Ms. LORIMER. One of the features of the APHIS regulations mitigation requirements is that there is overlap. So before getting to the sort yard, the logs have undergone extensive mitigation treatments. The extra burning and heat treatments of the material after it is here is just another safeguard, sir.

Mr. DEFAZIO. It seems to me, then, I guess it is not necessary. So we might as well dispose of that unnecessary expense and burden on the people if there is no risk because of the methyl bromide treatment and the visual inspection of one one-thousandth of 1 percent of the logs coming in, then I guess we are really being—I am more kind of being unreasonable here by requiring heat treatment after we have moved the logs into a confusing situation in a sort yard adjacent to the very resource we are trying to protect and requiring segregation and sanitation and burning of sawdust and those sorts of things.

Ms. LORIMER. Extensive overlap of mitigation treatments is one of the features of the APHIS regulations.

Mr. DEFAZIO. You would make a great prisoner of war.

Ms. LORIMER. I feel like one.

Mr. DEFAZIO. That is a compliment. You come back to the script.

Mr. RAINS. Mr. DeFazio?

Mr. DEFAZIO. Yes.

Mr. RAINS. There is no doubt we cannot produce a risk-free issue here. What we are trying to say is, due to the risk assessments we are trying to identify the most probable treatment that will be the best treatment and also to provide a balance between protection and import capabilities.

Mr. DEFAZIO. Okay. But what is the big problem with heat treatment at the other end? Just tell me what it is.

Mr. RAINS. There is not a big problem with heat treatment at the other end.

Mr. DEFAZIO. What is the little problem, then? What is the problem with heat treating at the other end and reducing the risk further?

Mr. RAINS. If it is not needed, it is not needed.

Mr. DEFAZIO. But we cannot say it is not needed. We are saying given the risk assessments, given the probabilities, given what we know, it is probably not needed.

But I am saying you are a citizen of the United States of America. You are charged with protecting the resources of the United States of America and to optimally protect them like Chile does in prohibiting log imports. I am not going so far as to say prohibit them, which would be zero risk, but let us go one step back and say how about the optimal treatment on the other end. Who are we disadvantaging? What is the problem here? What is the problem?

You cannot tell me there is no risk. What would be the problem of heat treatment on the other end? What are the costs per thousand to heat treat? Because we will have to heat treat on this end. What will be the difference in the final price of the product from heat treatment on this end after the log has been here 60 days to heat treatment on that end before the log left the country? Do we get a big value added or jobs out of heat treating on this end; is that why we are protecting our heat treatment industry? What is the deal?

Ms. LORIMER. We are trying to make this a science-based project, Mr. DeFazio.

Mr. DEFAZIO. But, please, if we have to heat treat at some point, why do we not require it on the other side of the ocean? Why not?

Ms. LORIMER. Because APHIS decided based on the risk it is not necessary.

Mr. DEFAZIO. Why is it necessary on this end, then? Why is it necessary to heat treat on this end if there is no risk?

Mr. LEE. Mr. DeFazio, there were a number of comments making the same point that you are making and they are being considered.

Mr. DEFAZIO. Well, a voice of sanity. That is great. I hope you consider them and weigh them heavily because it does not make sense to me.

Mr. ROSE. Will the gentleman yield?

Mr. DEFAZIO. Certainly.

Mr. ROSE. Because I want that to appear in the record twice. What did he say? What did you say? Would you just say that again, Mr. Lee.

Mr. LEE. I said that we received a number of comments during the comment period, to the proposal, that made the point that Mr. DeFazio was making.

Mr. ROSE. Thank you, sir.

Mr. DEFAZIO. I thank the Chairman. That is the point. If heat treatment is necessary and desirable at any point in the process, why not do it on the other end, and that question just cannot be answered. There is certainly a risk that a log is going to get missorted on this end, maybe even sent to the wrong yard.

Scientists should go and visit sort yards to see it is not a precise science to store and sort logs, because that is where your argument kind of breaks down. I have been at a lot of sort yards. That is my problem with this.

I am not saying no imports. That would be the zero risk option, except there is always risk, because other things are imported, other nursery products, gypsy moths come on ships that do not have wood products on them. I understand that. So we will never get to zero risk in an international economy.

And in this case I am not saying no log imports, but I am just raising what has been to me sort of a practical question from the beginning, why not do it to the highest possible standard and do it on the other end, and I am glad to understand it is under consideration.

I thank the Chair and will not belabor this further and we will hear from scientists on why it would be a good idea to do that a little later.

Mr. ROSE. Let me, before I recognize—do you want to get in at this point? Let me ask a couple of questions first and then I will recognize Mr. Smith, an interested Member of the full committee who has joined us today.

Mr. Lee, these are fairly simple yes or no questions. And I am not trying to be ugly, I am just trying to disabuse you of the idea of long political answers, as we sometimes have to give.

Do you agree that this country is being exposed, I could use the word "invaded," but is being exposed to an ever higher rate of exotic pests coming into this country from offshore?

Mr. LEE. Yes.

Mr. ROSE. Could you talk for just a minute, not yes or no, about how you view that increase in foreign pests? I mean in all of APHIS, in all your jurisdiction.

Mr. LEE. Yes.

Mr. ROSE. How has it increased over the last 10 to 20 years? And in recent years.

Mr. LEE. The number of passengers, foreign passengers coming into the country; the number of aircraft, foreign-based aircraft landing in the country; the volume of containerized cargo entering the country; and the number of vessels coming to our ports all have increased in the last five years. I do not have with me but I would be happy to submit for the record the increase in interceptions we have made.

Mr. ROSE. I know you are doing as much as you can with that, and I am not—this is a friendly question, and Bo, on my staff, I want you to get in touch with Dr. Lee's staff before they leave, I would like to see that personally, the data on the increases in opportunities for foreign pathogens to enter this country. Your answer to the first question was yes.

[The information appears at the conclusion of the hearing.]

Mr. ROSE. Second question is with all the budget constraints and the belt tightening that we are going through everywhere, and especially at USDA, is there not a pretty severe strain because of this increase in foreign pathogens? Is there not a—entering this country. Is there not a pretty big strain on your resources generally?

Mr. LEE. The answer is yes.

Mr. ROSE. Is there not a pretty big strain on your research ability to identify and study the life cycles, the habits of these pathogens? Is that not becoming an increasing problem because of budget restraints?

Mr. LEE. I don't know that I can answer that with a yes or no. May I answer it, though?

Mr. ROSE. Yes.

Mr. LEE. The answer tends to be yes because of the restricted availability of funds and its application or those applications to the needs; but whether it has had a negative impact on the study of life cycles or not I cannot answer.

Mr. ROSE. Well, I maybe made it too restrictive, but Mr. Volkmer, I wish you would hear my question and see if you agree with me on this ultimately.

I was in Southern California on Monday at the University of California at Riverside, and spent most of the day basically involved in the problem or problems of exotic pests in the Valley area and had a long meeting with a panel of entomologists at UCR. And my question is, is it not true that in a State like California you attempt to do much of your work through cooperative arrangements with the State?

Mr. LEE. We do that in California as well as your State of North Carolina.

Mr. ROSE. But that is not the pattern everywhere?

Mr. LEE. Generally, it is the pattern. We work cooperatively with State Departments of Ag.

Mr. ROSE. How about Florida?

Mr. LEE. Yes.

Mr. ROSE. Texas?

Mr. LEE. Yes.

Mr. ROSE. Oregon and Washington State?

Mr. LEE. Yes.

Mr. ROSE. My question is whether or not adequate resources are being applied to the general problem of exotic pests or foreign pathogens or however you want to describe it entering this country; and whether or not this subcommittee, Mr. Volkmer, if I can get him interested——

Mr. VOLKMER. I am listening.

Mr. ROSE. I know you are listening, but I want to do it so that you would be interested in this, because you are the granddaddy of this subject and committee. I think we ought to make a special effort to maybe establish a series of special research facilities to do special work on exotic pests and study life cycles, baits, methods of eradication.

I mean, there is a great political problem in California, and the political problem is that spraying with Malathion is not necessarily—it may be the best way for some eradications, of the Mediterranean fruit fly, but my information is that it is becoming less

effective than it has ever been before. It is not as effective as it once was and that alternatives are needed, and I am just not impressed that the money and the resources are being—they are certainly not being put by California and of course California would like to control any of this research if it was done from the Federal Government, and they have other priorities.

So I am just saying, looking at it in a fresh way like I did, why does Congress not create, with the department's approval of course, and agreement, a separate effort on exotic pest detection, control, eradication methods, et cetera, and put them in these border States where these major shipments of imports are coming from?

I don't have to tell you what is going on at the post offices where Asians and foreigners, their families at home are mailing fruit to the relatives who live in this country, and I doubt that you are satisfied with the post office as a detection agency for foreign pathogens, are you?

Mr. LEE. No, sir. And you have a very good grasp of the problem and we generally, within APHIS, are in agreement with that view of having research done for that, with a bit of caution, though, Mr. Rose.

We would find it difficult to allow the importation of a known exotic detrimental quarantined organism to be released into the environment for the specific purpose of research. Whether it is the Mediterranean fruit fly or Asian gypsy moth, we would not favor bringing those into the locations where research facilities are established. We would prefer that the research facilities be established and develop cooperative work in locations of the country where those organisms exist to carry out active programs of research in those locations.

Mr. ROSE. And how many of those do you have around the world now?

Mr. LEE. The Agricultural Research Service is engaged in a number of those.

Mr. ROSE. How many?

Mr. LEE. I would have to find out, Mr. Rose, I have no idea. A number of our institutions——

Mr. ROSE. So you do not think the research in this area at UCR is necessary; that it could really all be done offshore?

Mr. LEE. I think a good bit could be done offshore. Part of it could be done at UCR.

Mr. ROSE. I am not making a speech for the university system or anybody's congressional district, but exotic pests are not being imported under visas or anything like that. They are coming in with the people that bring them here, or friends that mail them plants or food that are contaminated.

Mr. Volkmer, what is your reaction to that?

Mr. VOLKMER. I think you have a great idea, Mr. Chairman, and I think that it is one that I think would be beneficial in the long run to people of this country and the assuming public as well as producers of various products.

Mr. ROSE. Would you meet with me sometime and let us, maybe you and Mr. DeFazio and Mr. Smith, or others that are interested, could just talk a little bit about a concept of this; that we could develop some legislation at least to authorize it for right now.

Mr. VOLKMER. I think we need to do that, and I think that as we learn more and more about how to analyze for pests, fungi, whatever other diseases, with the science that we have, I think as we work this up, I think we are going to have to have the cooperation of APHIS also in that.

I think it is necessary for them to be involved also, Mr. Chairman.

Mr. ROSE. Thank you. What about in Chairman de la Garza's district? What research facility—could you talk about the research that is ongoing there?

Mr. LEE. The Agricultural Research Service has at least one, if not more, facilities, in the Chairman's district. Research in particular on fruit flies.

Mr. ROSE. Screwworm.

Mr. LEE. Boll weevil, biological control, fruit flies, and other cotton pests. I believe there is also research at that facility on sugar cane pests.

Mr. ROSE. Well, I am specifically talking about the kinds of pests that come into this country through the shipments, through the airplanes, through the people, through the Postal Service.

I mean, Mr. DeFazio is hitting the tip of the iceberg, so far as I am concerned. I know that we have boll weevil pests that have to be outsmarted and sugar cane pests, but he specifically is talking about imported pests that are coming in, not those that have lived here and learned to like our chemicals and that we have to change the chemicals so they do not like them anymore.

All right. Mr. Smith.

Mr. SMITH of Oregon. Thank you, Mr. Chairman.

Dr. Lorimer, are you an entomologist?

Ms. LORIMER. I am, sir.

Mr. SMITH of Oregon. Mr. Lee, how many entomologists do you have on staff? Let me ask you the other question, then.

Mr. LEE. Mr. Smith, I am not prepared. I would be happy to submit that for the record, but we believe we have at least 16 certified entomologists full time at headquarters.

Mr. SMITH of Oregon. Okay. Were entomologists involved when you did your risk assessment work in Chile and in New Zealand?

Ms. LORIMER. Yes, they were. Entomologists and pathologists.

Mr. SMITH of Oregon. Both, okay. I assume, Mr. Rains, that Chile and New Zealand wish to export their logs.

Mr. RAINS. That is true.

Mr. SMITH of Oregon. And they have as much interest in exporting pest-free logs for a market in the United States, probably their best market in the world. I am assuming their interests are like ours.

Mr. RAINS. Absolutely.

Mr. SMITH of Oregon. If they export a pest-ridden log, they know they are going to be shut down.

Mr. RAINS. That is true.

Mr. SMITH of Oregon. So it is in their economic interest to make sure that they, along with us, do not find problems with the importation of those logs, I assume; is that correct?

Mr. RAINS. Yes, sir.

Mr. SMITH of Oregon. So the question then that Mr. DeFazio raised is one of interest to me. I assume that when you made your risk assessment analysis of New Zealand and Chile that you determined that there was not a problem from that point of view, but I assume that you placed heat treatment as an additional protection; is that correct, or is it not correct?

Ms. LORIMER. Yes, the heat treatment Mr. DeFazio was referring to that would take place on our shores is the kiln drying of the lumber after it is prepared and also burning the sawdust. It is not the same as the heat treatment that is required for Siberian logs, which is to actually take the whole log and heat it to a certain temperature for a certain period of time.

Mr. SMITH of Oregon. So you would prescribe that type of heat treatment anyway?

Ms. LORIMER. Yes.

Mr. SMITH of Oregon. So, then, I guess the question is, and I have talked to the Ambassador from New Zealand, who is very proud of the fact that they are controlling pests in New Zealand and they do not want to export pests, because they would lose their markets, have you identified any results of any of the, in the 12 loads, 12 shipments, have you found after the treatment here and in New Zealand or Chile any kind of insects that live through that process?

Mr. RAINS. No, nothing.

Mr. SMITH of Oregon. None. Absolutely none. So in the risk assessment question, you are ready to testify that those 12 shipments as they were treated caused no danger whatsoever as far as inviting pests into this country?

Mr. LEE. Yes, I would submit, Mr. Smith, that is the case.

Mr. SMITH of Oregon. All right. So it is your job to really analyze around the world, and I assume you treat every country differently, obviously, because you have sent teams to every country. If you have the request from a new country to import logs, you would have to first apply a risk assessment to that country, I assume; is that correct?

Mr. RAINS. Yes, that is correct.

Mr. SMITH of Oregon. So you would have to go to that country. In effect go there, follow the process that you have identified to identify in that country what would be the possible dangers, kinds of importation of insects?

Mr. RAINS. Just like with Chile, New Zealand, and Siberia.

Mr. SMITH of Oregon. What other countries do we get imports from that you have risk assessment analogies on?

Ms. LORIMER. Those are the only three.

Mr. SMITH of Oregon. That is including Siberia; is that right? Siberia, Chile and New Zealand; is that correct?

Ms. LORIMER. Those are the only three to date, yes.

Mr. SMITH of Oregon. All right. I assume, then, that what we are going to do here is listen to entomologists from both sides of this issue and try to figure out who is right and who is wrong and I am not sure I am a great enough judge to handle that, Mr. Chairman, but we will listen. Thank

you.

Mr. ROSE. Mr. Kingston.

Mr. KINGSTON. Mr. Lee, the question I have is are the importers required to post a bond with USDA?

Mr. LEE. No, they are not.

Mr. KINGSTON. Has that ever been looked at?

Mr. LEE. Not officially, to our knowledge, it has not been.

Mr. KINGSTON. Would it in your opinion be part of the solution if they put up a bond that was guaranteeing that lumber that they were importing was pest free?

Mr. LEE. I would like to defer the answer to that. I have not thought that deeply on the necessity of posting a bond to ensure that the imports were as described.

Mr. ROSE. Mr. Smith?

Mr. SMITH of Oregon. If the gentleman would yield a moment. It may be necessary for the country of origin to post the bond. The importer has to rely upon risk assessment from the country of origin as well as here, without much control. So I think the gentleman has a point, the question is where should the responsible——

Mr. KINGSTON. What we are really talking about is not the pest but the damage caused by the pest, and a bond would pay for that damage and, presumably, the cleanup in the extermination of the pest. I don't know, that might fit into this situation.

Mr. ROSE. Okay.

Mr. RAINS. Mr. Chairman, may I speak to Mr. Smith's statements just a little bit?

Mr. ROSE. Yes.

Mr. RAINS. First of all, we need to understand the rules that are being proposed. We have some comments. Mr. DeFazio's statements are really well taken and on target. Nobody disagrees that we want to reduce the risk; nobody is disagreeing that we want to have risk assessments that are highly scientifically based, and what we want to try to do is take the comments that we have on the proposed rule, and the findings that we have in other places and make sure our proposed rules are adequate, and that is really what we are talking about here.

Mr. ROSE. All right.

Mr. DEFAZIO. Chairman, could I, before you dismiss the panel?

Mr. Volkmer on the way out asked, and again I am not on the committee, but I would concur in his request, that the Forest Service and the APHIS, as best as possible, answer the questions enumerated in Mr. Cobb's and—Professor Cobb's and Professor Lattin's—it is a total of about I think seven questions and I don't think it would be that difficult to answer, if they could answer them in writing.

Mr. ROSE. Yes, we would ask that they apply in writing to Mr. Volkmer's request to answer these questions. Thank you.

[The information appears at the conclusion of the hearing.]

Mr. DEFAZIO. And, Mr. Chairman, if I could, if the Chair would abide one further?

Mr. ROSE. Yes.

Mr. DEFAZIO. I hate to belabor this, but I guess I still remain a bit puzzled. If I could ask two questions.

First off, let us take chestnut blight. It was not identified as a problem, I guess overseas, nor known here before it decimated some hundreds of millions of acres of land in the eastern United

States and denuded the dominant tree in the ecosystem, chestnuts. Is that correct; we did not know about it?

Ms. LORIMER. That is correct.

Mr. DEFAZIO. So I guess that is the concern. I like science and scientists. I consider them sort of advisory to policymakers, and it is nice that you are giving us advice and we are going to hear some other advice.

I guess I just want to ultimately apply some practicality, and I return to the points I made about sort yards and other things; that, apparently, there is some residual risk or we would not, after the methyl bromide treatment, which we have heard will penetrate 4 inches, apparently there are things that can either survive that on the surface or things further into the log about which we have some concern, that are known, let alone unknown, or we would not require heat treatment at all; is that correct?

There must be some reason we are requiring heat treatment on this side of the ocean or is it just sort of like icing on the cake and we can do away with it?

Ms. LORIMER. I think it is just another overlapping safety measure.

Mr. DEFAZIO. So the methyl bromide will eliminate everything we are aware of?

Ms. LORIMER. The logs are going to be cut up and kiln dried anyway and having them done within a certain period of time is just an extra measure of safety plus destroying the sawdust is just an extra measure of safety.

Mr. DEFAZIO. Extra measure. That must mean there is some risk, some little risk in that sawdust in not drying, because we do sell two by fours and whatever that are not kiln dried. There is green stuff in this country. You would not want to try to put a nail in it, but you can buy it. So there must be some residual risk after the methyl bromide.

Ms. LORIMER. The whole process is designed to bring the risk down as low as possible.

Mr. DEFAZIO. So the heat treatment is an integral part of that process to bring it down.

Ms. LORIMER. Kiln drying and burning the sawdust, yes.

Mr. DEFAZIO. It is heat treatment of everything we can identify in a slightly different form, in a slightly different form than was proposed for the Siberian logs.

And again I would just return to the earlier point and I guess I would like to know what went into the agency's thinking in terms of disregarding those recommendations regarding the Siberian logs to lower the risk as much as possible and by doing the thorough heat treatment?

Everybody, I can go down to the Springfield plywood mill and watch the heat treatment. It is not like this is exotic, expensive technology. They do it in order to peel logs better, but it is something that is regularly done to the logs for purposes other than pests. It does not ruin the log. Thank the Chair.

Mr. ROSE. Just let me say to you all that I strongly support Mr. DeFazio's concerns, and I think most Members, not all Members, but most Members of this subcommittee do, and I hope you will be

very considerate of what you have heard here today, as I know you will.

Thank you all very much.

Mr. RAINS. Thank you, Mr. Chairman.

Mr. ROSE. I would invite the second panel to come up at this time. Dr. John Lattin, Dr. Cobb, Dr. Belsky, Mr. Russell, and I would like to ask—where is Scott Berg? You come on up to the—Scott, come on and join this panel so we can all—we are running out of time here.

I will say to Mr. DeFazio, I think you have emphasized one very important piece of a problem that covers the whole country and it is how we approach the question of dealing with foreign pests generally, and you are concerned, as I would be concerned, that the tilt might be made away from the environment for some economic consideration to help the importer of the log who does not want to have any added expenses. But to the logs coming in, I think you are very correct in insisting that the first concern be what happens to our environment and I salute you for that.

Dr. Lattin, Professor of Entomology, Department of Entomology, Oregon State University.

STATEMENTS OF JOHN D. LATTIN, PROFESSOR OF ENTOMOLOGY, DEPARTMENT OF ENTOMOLOGY, OREGON STATE UNIVERSITY; FIELDS W. COBB, JR., PROFESSOR EMERITUS, FOREST PATHOLOGY, UNIVERSITY OF CALIFORNIA AT BERKELEY; JOY BELSKY, STAFF ECOLOGIST, OREGON NATURAL RESOURCES COUNCIL; KEN RUSSELL, FOREST PATHOLOGIST AND MANAGER OF FOREST HEALTH, WASHINGTON STATE DEPARTMENT OF NATURAL RESOURCES

Mr. LATTIN. Thank you.

Mr. ROSE. We are going to put all your statements in the record, so if you want to have lunch today, you will summarize your statements.

Mr. LATTIN. I brought my own, Mr. Chairman.

Much of what I have prepared to say has already been said so I will sort of hit the high spots.

Mr. ROSE. That will be great.

Mr. LATTIN. Since Coos Bay, Oregon, has been talked about to some considerable extend, I would like to enter the following for the record. Of the 9 shipments, I can only tell you about the most recent that came in 4 or 5 weeks ago, that shipment contained 26,000 logs.

I talked to the APHIS inspector to find out how this was done and how they took the samples as has been described. Samples were sent off. I asked the same question. How long before you get the results? Up to three months, depending on what the organism is, was the answer.

So I made a quick calculation, if you had only one shipment a day, you could bring in one and a half million logs before you got the results of the first shipment. That bothered me, I will not deny.

Secondly, it was mentioned that there were cedar logs, 110 logs—they grow other trees, other exotic trees in New Zealand than the ones that have been mentioned today, about 25 or 30 species of conifers, mostly North American, including Western red cedar.

The 110 logs were down there in the hold. No one knew they were coming. They were on the manifest in fairness. It turned out those logs had not been heat-treated. For reasons I am not personally familiar with, these logs had to have been heat-treated at point of origin before they were allowed in this country. They had not been so treated.

They were quarantined by APHIS at that time and the shippers were given two choices, take them back or destroy them. They decided to destroy them. They were going to burn them—they had been sprayed with two types of insecticides and two types of fungicides. Our Oregon Department of Environmental Quality came in and said, you cannot do that, you cannot release those compounds into the air. This touches on the burning of sawdust that has this material on it.

So the inspector, under proper jurisdiction, (he had the authority to do so) released those logs without the proper treatment. They were sent by truck from the coast to two inland cities, Mill City and Lyons, in the western foothills of the Cascades.

So they went to two mills directly from that port. So that is how those logs got treated. So I have some problems. I spent two years on the OTA panel on a Nonindigenous Species project and learned more about this topic. And one of the things that emerged from that particular activity was that if you look at the economics of it, money is much better spent preventing the invasion of organisms than treating them once they are here, and all you have to do is look at the cost of the gypsy moth control and a number of other species to document that very thoroughly.

My comments today will concentrate on two things, proposed regulations and the mitigation protocols. Many of these have been discussed and I will not repeat them.

I have very serious concerns and reservations about the proposed regulations, and that is no secret, it is a matter of public record. These regulations are based chiefly on the Pacific Northwest activities, as has been said again and again today.

We had an original meeting of some 60 or more scientists, pathologists and entomologists, that addressed the Siberian log importation question in Portland in 1991. This was a very thorough review.

It is interesting that relatively little of the information from that review shows up in these proposed regulations. These regulations, are in fact based chiefly on the documents produced by risk assessments from New Zealand and Chile. It is curious because they inspire some comments to the contrary.

Both of these proposals that were risk assessments were performed by a team of quite different composition than the first one. The second one (New Zealand) had a very small group, as I recall half a dozen people only from within the Forest Service. They received most of their information from the New Zealand government. And omitted—I had occasion to review both the draft and a final copy—omitted information that was provided to them from other sources, including the main reference on insects associated with the pines they were talking about (Ohmart, 1982).

And if one wants to go to Appendix J of that document, you will find 85 pages of comments on it. Most of them not very—I should

say most of them were rather critical of what was presented on those pages.

The third, dealing with Chile, was contracted out to a Texas Forest Service included several people that had been in Chile in the Peace Corps and at other times, and also included some Forest Service personnel that had the same experience. But again it was a small group.

When the request went out, they said we will not allow you to write more than four pages of comment. We will not publish your comments. We will only take that which we want. So the things that you see towards the end are of that type.

My personal objection to that, I felt this was an inappropriate procedure to follow. Where it came from, I don't know. But I know how I react to being told what I could or could not do in providing the basic information. And the information I presented is found not here but I would be pleased to provide it if there is reason to do so.

Now, what I am really concerned about is the fact we are taking this information from only one part of the country. It happens to be one in which I reside and naturally I have more than a passing interest in it, but I am very uncomfortable with taking this kind of information and applying it, as these regulations do, to the entire United States.

I notice that there are a number of Members of this committee from the southern United States, and I would give you a very specific example of a potential risk, to the best of my knowledge, has not even been considered.

We were asked to receive Caribbean pine, wood chips from the Honduras, into Oregon. Oregon was the only State to object, and of course it was the only State that these wood chips at that time were to come. APHIS overruled us and the chips came in anyway.

I would point out that particular pine growing naturally throughout the Caribbean and in Central America and now grown in great plantations in Brazil was, until recently, considered the same as your slash pine. There are about 10 species of pines, all of them found either in southern United States, or on a couple in the islands, (Puerto Rico), they are all closely related and will interbreed with one another.

So if shipments of wood chips—and they may have been done already, I don't know personally—are brought from that pine into the South and spread out, or lumber, which is also possible, or raw logs of that species, there is a very high risk of bringing in organisms that could have very serious consequences on the forest of the southern part of the United States.

The second one has to do with our State, where these things are brought in. There is a pine (shore pine) that goes along the coast of Oregon, extends to the north and a little south down into northern California. It meets another species, Jack pine, which goes across the northern United States and southern Canada. It is associated with the Virginia pine when it comes down the East Coast and on into Florida where it meets another pine, known as the sand pine. So you have a large horseshoe that provides a potential avenue for dispersal from the West Coast and the reverse has been done already by white pine blister rust.

So I am uncomfortable with the idea we are taking information from a relatively small area and simply applying this to all-comers, in all areas, when we know for sure the comparable kinds of information has not been obtained for the entire eastern seaboard and most of the South.

Now, nothing yet has been said about these logs and other products serving as passive carriers for agricultural pests, but I can assure you places like Siberia and other localities have plants that are directly related to crops grown in the Northwest, hazel, cane berries, for example. The possibility of passive introduction is high.

Those from California would certainly, in California, know Monterey, California, the beautiful trees right there, they are Monterey pines. The species is restricted naturally to three, very small areas. Should diseases or pests be brought in on pines that are being brought in from the Southern Hemisphere, those natural trees certainly would be at risk.

Finally, we are trying to assure that NAFTA regulations have these agreements, and something is said there about the border States. With my colleague from Mexico, we drafted a publication, the last one in the green booklet you have received, dealing with the potential risks of raw log importation into Mexico. I can assure you they are very concerned because they have a broader environmental spectrum than we do in the United States. Some pests that have come into Mexico, moved North, and spread throughout western North America, the Russian wheat aphid, for example. The reverse case is true for pests from Canada.

While these borders have similarities on both sides, we do have to act as a group to address these problems. The same would be true of course as we get into the GATT proposals.

Now, in closing, I would just like to comment on the mitigation protocols. I will go through them top to bottom. There are six and many of these have been discussed so I will only touch on them.

Inspection. The ship that came into Coos Bay had 26,000 logs on it. Some of the beetles that might be found in the middle of the logs that would emerge have an exit hole of about one-hundreth of an inch. There is simply no way an individual can inspect all those logs, so indeed they subsample, as has been described earlier on how this occurs. They take a couple of samples, send them to the lab for examination and release the logs as they released these to the mills. They may find out some months later what the past problems might have been. Obviously, other shipments could have come in at the same time.

The idea of debarking is good, but when the so-called test shipments arrived, and I say so-called simply because one wonders if you have to test whether a ship can carry logs in the first place, they could have looked at the logs at the point of origin to determine if there were organisms in there. But those logs that came in from New Zealand, the early test shipments that had been debarked, the people who went and examined them found living insects underneath the remnants of the bark on the logs. Thus the concern about debarking.

The surface spraying of pesticides was of concern. When I met with the Oregon AFL–CIO, they were concerned about the potential health risks that might be associated with handling logs that

had been treated with such compounds, and as I mentioned, DEQ said you cannot burn and release those chemicals into the air.

Fumigation. What has not been said has to do with methyl bromide, and that is that this is a compound that is well-known for eroding the ozone layer and is about to be outlawed within a few years. It seems questionable, let's say, to build a program of mitigation based on a compound that will not be here probably within a few years.

And finally the heat treatment, I still would echo the question that Congressman DeFazio raised. There was a science panel put together by the Forest Service in Sacramento in 1992 to address the question, the mitigation procedures, and develop proper protocols, including the heat treatment.

And as a member of that science team, there was no doubt in my mind that these people—people with a lot of experience—were thinking in terms of how these regulations might be utilized for other similar types of activities. It was not just for Siberia. The dropping by 20 degrees centigrade of the heat treatment requirements recommended by the team from 71 degrees for 75 minutes, to 56 degrees for 30 minutes by these present proposed regulation is inexplicable. I cannot imagine how they thought that would help.

Mr. ROSE. Go ahead.

Mr. LATTIN. And finally the question of the point of origin.

These Western red cedar logs from New Zealand were to have been heat-treated in New Zealand. I can see no reason at all why properly applied heat treatment at the point of origin of the logs could not be done. It is noncontaminating and the like—this is the area where there should be developed an adequate information base prepared and used at the point of origin. I cannot emphasize the need for that strongly enough.

Mr. ROSE. Thank you. We are running out of time here. The next witness is Fields W. Cobb, Jr.

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

Mr. ROSE. Professor Emeritus, Forest Pathology, University of California at Berkeley in Sagle, Idaho?

Mr. COBB. Yes, I moved to Sagle about a year ago.

STATEMENT OF FIELDS W. COBB, JR.

Mr. COBB. Mr. Chairman, I appreciate very much the opportunity to address you today. It is only going to be for a moment or two. Both Jack and I are programmed to give 50 minute lectures, and it is difficult for both of us to do a little bit less.

I am going to disregard my prepared comments. They are going to be in the record.

Mr. ROSE. They will be a part of the record.

Mr. COBB. And I hope that you all read it, but I would like to say first that I support everything that Congressman DeFazio has said. He has hit the nail on the head many times in his comments.

Also, I support the comments of Jack Lattin, my friend and colleague. I also was involved in some of those same activities that he was, and I am very distressed that both his comments and mine were not used to prepare the document but were instead attached

to the back as somewhat of an appendix. Apparently that is where these things wind up.

I would like to address the potential for introductions of damaging forest pests into North America through importations of inadequately treated logs or the wood products. Exotic pests can have greater potential impacts upon the economy and upon the whole forest ecosystem than almost any other conceivable disruption. To illustrate the point, I will go back to the turn of the century when around 1900, two of our more devastating organisms were introduced, the fungus that causes Chestnut blight and the white pine blister rust fungus. I will address my comments to the chestnut.

In 1900, the American chestnut was the most majestic tree of the magnificent eastern hardwood forest that covered approximately 200 million acres of land. The chestnut represented 25 to 30 percent of the composition of those stands. In other words, it was the dominant species in that ecosystem. By 1950, that blight fungus had virtually eliminated the American chestnut from the American scene. Some of us may have been fortunate enough to see those forests dominated by chestnuts, but our children and their children and their children's children will never see that.

Economically, the losses have already reached into the trillions of dollars, trillions of dollars. If you take those figures in the written statement and multiply them out, you will see that the losses have been astronomical, simply on the economic side of the coin.

The timber industry that wants to bring these logs in apparently is looking at the very short-term profit, because if they were really looking into the future they would worry about this as much as we do.

At any rate, we have not finished paying the piper yet. As we replace the lost chestnut, which is almost extinct, with oaks, and that is the major thing that has filled in the holes, we have now gotten into trouble with oak wilt. We did not know that fungus until the late 1930s, but with the increase in the numbers of oaks in these forests, we got into trouble with oak wilt.

Also, the impact of the gypsy moth would probably be very substantially less if we still had the chestnut in existence. So even though we have lost the chestnut, the impact is not over.

The problem is so astronomical that I don't know how much of a risk that we can really afford to take. This is not a hypothetical thing. This is what has happened once with one species of tree. We know it can happen again.

Sir, I am sorry, I would like to say a number of other things I have outlined in my statement, but I will pass. Thank you.

Mr. ROSE. Maybe we can get back to them in question time. We are going to have to go vote in a minute and come back, so let me just sort of have a first round with you all.

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

Mr. ROSE. Dr. Belsky.

STATEMENT OF JOY BELSKY

Ms. BELSKY. Thank you, Mr. Chairman.

The proposed rules for the importation of logs and other wood articles are guaranteed to introduce new pathogens and pests into

the United States. Although we would like U.S. timber mills to be fully operational, the risk is certainly too great.

One thing that has not been mentioned: we have been talking about logs coming in from Chile, New Zealand, and Siberia, but the new rules are for logs from all other countries of the world also. So these will be rules for timber species from around the world that have not been tested for pathogens and insect pests.

Also, the possible importation of pests could be affecting our hardwood floors from Maine to Michigan, and our southern coniferous forests from North Carolina to Texas.

I will simply mention a few of the myths associated with this topic and some of what I consider the absurdities of the new proposed rules. The first myth is that there are not enough—there is not enough timber in the United States to keep our mills going. That is not true. Government documents show that in the last year alone over 4 billion board feet of logs and unprocessed lumber were sent from private and public lands from Alaska and the Northwest. What we are doing is helping to provide full employment for the mills of Japan while closing down our own mills.

The second myth is that the log imports will improve the economy of timber-dependent communities. If we introduce new pests and pathogens, we will destroy the economies of these same communities. Not only killing the trees but also hurting the tourism industry and commercial and recreational fishing.

Also, the American nursery industry will be greatly harmed. Mr. Craig Regelbrugge, one of the directors of the American Association of Nurserymen, called and asked me to convey to you his organization's deep concern about the importation of new pests that could come in on unprocessed wood articles under the proposed rules. Every time a new pest is introduced into the United States, the nursery industry undergoes construction. There are countries that would not accept the American nursery material.

And the third myth is that by importing logs from abroad, our forests can be spared. That is absolutely not correct because our forests might be destroyed. Not only will we lose species, but the main response will be massive pesticide application on our forests and other lands, and these pesticides will not only damage human health and poison our waters, but also they will kill many nontarget species.

Now to go through some of the absurdities, some of which have already been mentioned. The greatest one is that the temperatures that have been found through scientific research to be required to kill all the important pathogens and pests to the center of the wood have been reduced by 27 degrees Fahrenheit and by 45 minutes of heat treatment in the Proposed Rules.

The second absurdity is that except for the wood articles from Siberia, the wood does not have to be heat treated for one to two months after it has arrived in the United States. During all of that time spores of pathogenic fungi and devestating insects can be released into the environment.

Mr. ROSE. Can I ask you to just hold right there? Rather than hurry up your statement, I think you should let us go vote.

Ms. BELSKY. Okay.

Mr. ROSE. And I just want—you talk about the spraying hurting our timber. I think in Dr. Cobb's testimony, he talks about methyl bromide being under consideration for complete banning in four to six years. And the department is talking about using methyl bromide as a method for spraying.

I think you are going to be—you could be in a real box. You are going to be having—we are going to be introducing through not only timber but all these other things, all these other vegetables and plants and so forth that we are importing into this country, all kinds of pests and pathogens and then have no tools to fight them. You are not going to be allowed to use anything to spray with.

It is politically incorrect to spray in California now for anything. Underarm deodorant people are in trouble in Southern California.

We are going to go vote and we will be right back.

[Brief recess.]

Mr. ROSE. The committee will please come to order.

I apologize that we had so many votes when we adjourned. Dr. Joy Belsky was testifying and she may proceed At this time.

Ms. BELSKY. Mr. Chairman, first I would like to answer your question about whether we will have to discontinue the use of pesticides. As you mentioned earlier, pesticides are not the answer. Most insects and other pests evolve resistance to pesticides in time and we have to keep putting more pesticides into the environment. Daily we learn of the new risks of pesticides to human health. The best answer is to prevent the entrance of these pests into the United States. That is the best we can do and that should be the first line of defense.

The gypsy moth, for example, was first brought into the United States by a scientist who wanted to study the possibility of using gypsy moth for silk production. When a few of the gypsy moths flew out of his window, we started an epidemic that has continued for over 100 years. We have not been able to stop the spread of gypsy moths, no matter how much insecticide we have applied.

I am sure if that scientist had realized the consequences of his bringing gypsy moths into the United States he would not have done it. We know the consequences of bringing pests from other parts of the world into our forested regions and we should not do it also.

Also, fungicides do not work in our forests. They work in simple ecosystems such as in cultivated fields, but they do not work in complex ecosystems such as forests. Fungicides will kill fungi such as mycorrhizae and decomposers that are critical for the function of our ecosystems. So we cannot just wait and depend on pesticides to solve the problems we create by allowing inadequately treated wood articles into the U.S.

Just to finish up with a few things that have not been mentioned earlier. One of the absurdities I mentioned in my testimony was leaving certification up to the importers and to the exporters. Certification that the rules have been complied with will not be up to APHIS officials or even to government officials in other countries, it is left up to the exporters of the wood articles.

In Siberia, we know that the timber industry is run by a "mafia" and is very corrupt. Mr. David Gordon, Director of the Siberian Forest Project, asked me to inform you that his experience of work-

ing with the forest industry in Siberia is that it is chaotic and corrupt. Shipments are often sent to the wrong destinations; bribery is rampart; and we should not trust timber certification without further independent verification.

Also, we have had enough examples of problems associated with logs brought in from Chile and New Zealand that we should be very, very careful about relying on the Proposed Rules or the Interim Rules. Recently Dr. Bill Dennison, a forest mycologist at Oregon State University, called me early in the morning and said that he had just seen a load of uncovered logs that were obviously imported go over one of the passes in the Cascade Mountains. He asked whether that was illegal, and I said, no, that the new rules allow imported logs to be transported to mills throughout the region. He said that he had worked with APHIS in the earlier working groups and he thought that the spirit of the negotiations had implied that the logs would be milled close to the ports. This is an example of truckloads of logs that have not been heat treated being transported through some of our most valuable forests in the Northwest.

Just to end up, someone mentioned earlier whether the importers would have to post bonds. We have discussed it in my organization. The question is—bonds for how much? Importers do not have to post bonds under the new regulations; but how much would we ask for? A billion dollars; $5 billion? The mitigation with pesticides, the mitigation for loss of timber species such as Douglas fir, the loss of wildlife species, how much should we ask for that?

Mr. ROSE. Well, EPA is asking people who stored old batteries 25 and 30 years ago, you know, to pay millions of dollars for cleanup of Superfund sites now. So maybe they should talk to the EPA about—no.

Ms. BELSKY. Right. In closing, it is a very difficult process. What we should do is prevent these pests and pathogens from coming into our country, and we should look at the rules, not only the new proposed rules but the existing interim rules. We should not allow any unprocessed logs or timber to come into the U.S. until we have foolproof methods to prevent the entrance of exotic pests and pathogens into the country.

Mr. ROSE. Thank you.

[The prepared statement of Ms. Belsky appears at the conclusion of the hearing.]

Mr. ROSE. Mr. Russell.

STATEMENT OF KEN RUSSELL

Mr. RUSSELL. Thank you, Mr. Chairman, for allowing me to participate.

I am a pathologist for the State of Washington, Department of Natural Resources, and I am not going to go into detail in everything here. I will skip along to another——

Mr. ROSE. Your full statement is part of the record.

Mr. RUSSELL. Right.

Mr. ROSE. And we will publish a copy of this as a hearing.

Mr. RUSSELL. Right. My concerns about importing logs come from two points of view, and the first are the concerns about exotic pest threats on Washington's lands, which includes 2.1 million acres of

State forest lands which our department manages, 10 million acres of private forest lands, and 5 million acres of Federal lands. And this does not include all the wilderness areas and everything else; this is the commercial forest land, so of course that other land is in there, too.

And then my second concern, as the manager of a statewide forest health program, our clients have 10 million plus acres, or more than 12 million acres of commercial forest lands, and I serve those people directly, so I have a great concern for those folks. And the new and exotic pests are our collective worst fears. That is what we fear most.

Since 1965, I have dealt with all kinds of pests in Washington. You name it, I have probably dealt with it. And most of them are native, but a few of them are exotics and they have cost us plenty. We have spent a great deal of money, over $130 million since 1980, in the collective States on just the Gypsy Moth Program alone. Everybody is pretty familiar with that. And just a single eradication spray near Tacoma, Washington, for a suspected Asian gypsy moth infestation, cost more than $13.5 million. And that spray was based on the trapping of just six insects that probably were escapees that came off the side of a ship somewhere, that came from the Russian Far East in all probability.

So there are some really big costs there, and that is kind of where I am coming from, is the cost of what it would be to people like us in Government.

Mr. ROSE. Now, I don't understand why the gypsy moth spraying costs so much.

Mr. RUSSELL. It was a preventive spray. Kind of like the Medfly spray done in California. An eradication spray to prevent the Asian gypsy moth from getting a larger foothold in the Tacoma area. They had trapped just six insects.

Mr. DEFAZIO. I might explain to the Chairman, if I could, Mr. Chairman, that the Asian gypsy moth differs from the European in that it poses much more of a threat because, as I understand, what is it, the female can fly,.

Mr. RUSSELL. Yes, the female.

Mr. DEFAZIO. So they had to cover a wide range. Whereas, with the European gypsy moth, they cannot fly and you can do a much more sector-specific treatment.

Mr. ROSE. So I am trying to see Mr. Russell's concern. You are concerned about the gypsy moth.

Mr. RUSSELL. The Asian gypsy moth.

Mr. ROSE. The Asian gypsy moth. You are concerned about that?

Mr. RUSSELL. Yes, very much so.

Mr. ROSE. But you think the reaction was too costly?

Mr. RUSSELL. Well, it is just that we do not want the Asian gypsy moth there. And here we are, we get some Asian gypsy moths coming in on a ship and we are forced into a situation to do this kind of a spray project at great expense. Great Government expense mostly. And that is the concern.

So what I did is use that to illustrate the point that when these things come in, it hits us right in the pocketbook really fast.

Mr. ROSE. Go ahead.

Mr. RUSSELL. I have a few words on the changes in the wood supply and the only detail, all of us are familiar with how the Forest Service has changed and there are new looks at forestry and there are shortages. There are definite trends in the way the wood is being used now. We still export a lot of high quality logs, as Joy Belsky has said. The problem comes in with the small mills that do not have much of a land base and they are looking at different kinds of logs. They are interested in other logs that are cheaper, so they do want to look at other lands and that is where this problem is coming from.

Now, some of the problems in the log importation. And from a purely biological view, the import of temperate zone logs and other unmanufactured wood products to the United States is not in the best interest for the health and protection of our forests. But if for economic reasons logs are imported, the regulations must provide for the highest level of pest prevention; and inspection alone will not suffice. So we have to have a really good program if we are going to bring logs in, as we heard this morning.

So I would like to leave you with the following points, and maybe a lot of us remember when we were kids getting boxes of Tinkertoys for Christmas, I always did, and the logs should look like those Tinkertoys. They should be clean when they come, and I like to use the expression they should just look like Tinkertoys.

Imported logs should not be processed in close proximity to suitable host forests. We have had a little discussion about that. Transportation of logs after arrival often takes them in many directions, almost too numerous to even keep track of. It is difficult. They scatter like the wind. It amazed us when we saw how far they went and this presents a high risk to the nearby forests. So we have a big concern about that.

We need better proven and safe substitutes for fumigating logs before arrival at U.S. seaports. The recommended fumigation of logs by methyl bromide is being phased out and there is too much dependence placed on this material to reach deepwood pests.

Mr. ROSE. What is the difference between methyl bromide and ethyl bromide?

Mr. RUSSELL. Methyl bromide is a long time proven fumigant used in nursery industries, house fumigation, termites, insects.

Mr. ROSE. Is ethyl bromide, that is not used, is it?

Mr. RUSSELL. No, not ethyl. Methyl bromide.

Mr. ROSE. I got you. Go ahead.

Mr. RUSSELL. Although methyl bromide has been safely used for years, there is not complete penetration of even medium-sized logs approximately—and my statement says 8 inches and I want to change that to 12 inches, because I just made an error there. It is just a larger log and the methyl bromide does not always penetrate all the way to the center of a large log. That is the problem.

We are also not convinced that the recommended heat treatment for killing pests deep within logs is sufficient for all insects and diseases, and I would like to recommend a slightly higher temperature. I was not going to state how much higher, but above what is stated in the EIS and something approaching 65 degrees C for up to an hour or more.

Neither APHIS nor Washington and Oregon Departments of Agriculture have adequate staff to do thorough inspection of imported logs. We just do not have it. And Government inspectors from both Federal and State agencies must monitor all stages of the handling of imported logs and the difficulty in searching for pests in large piles of wood and wood chips means that inspectors must evaluate based on really superficial examination.

The Department of Agriculture in Washington has only one person, one entomologist that is available on an intermittent basis the way we are now. Log inspection must be continuous to be effective. We have to be there almost all the time while the ship is being unloaded. And in the interim, assistance by our four-person Department of Natural Resources, forest health staff has been used. That is basically me. And we quickly become overwhelmed, would be overwhelmed if we had more ships come. We just could not handle it the way we are set up now because that is not our normal role. We are dealing with forests not log ships.

Costs for inspection and other services should be covered by the companies bringing logs here. We feel strongly that all costs should be borne by importing companies at various, whatever stage they would be in. The companies are more amenable to assessed fees based on tonnage or volume, rather than just a ship or hourly charge. So coming up with some sort of assessed fee seems reasonable.

The Department of Agriculture in Washington does have authority to charge inspection fees for grain and hops now, and it would just take a simple majority vote of the legislature in Washington to approve it for logs. So that could be done.

My last point here is that more Federal funding is necessary for APHIS and particularly the impacted States to intensify log import regulations at the State level, so the States could do a much better job.

Washington and possibly other States need a one-time Federal grant to establish a log inspection protocol. In other words, we are looking to Congress to get us help to get going and then the assessed fees would cover the operations from that point on.

And so to end it up here, destructive forest insects and diseases are insidiously at work. They do not respect political boundaries and they do not take vacations, and they are known to hitchhike across the oceans, there is no doubt about that.

So dealing with log import regulations means it is a hand-off between APHIS and the Department of Agriculture. It is like playing a football game. APHIS pass the ball and then we take over. And we need to be properly funded to do that and we need a really tight system to handle all this. Thank you.

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

Mr. ROSE. You say we, APHIS hands it off to the Washington State Department of Natural Resources?

Mr. RUSSELL. Washington State Department of Agriculture. And the Department of Natural Resources, the way we are functioning now, is we simply assist them because we care. We care about the problem and so we are just helping them out.

Mr. ROSE. All right. Thank you all very much.

Need to move on here. We will get some other questions I am sure. Mr. Scott Berg.

STATEMENT OF SCOTT BERG, ASSISTANT VICE PRESIDENT, FOREST ENVIRONMENT AND RESEARCH, AMERICAN FOREST AND PAPER ASSOCIATION

Mr. BERG. Mr. Chairman and Members of the subcommittee, I am Scott Berg, Assistant Vice President of Forest Resources and Environment with the American Forest and Paper Association.

Mr. ROSE. Tell me, who is in your organization.

Mr. BERG. All of the major forest and paper producers in the United States.

Mr. ROSE. What is the difference between a forest producer and a paper producer?

Mr. BERG. We use that distinction to mention that we are as concerned about the forest as we are about paper.

Mr. ROSE. I understand, but do you have any members that are not paper producers?

Mr. BERG. Yes, we do. A lot are solid wood producers, so we represent—in fact, we are the national trade association for the forest products industry across the board.

Mr. ROSE. Across the board?

Mr. BERG. Across the board. No pun intended.

Mr. ROSE. Across the board, okay.

Mr. BERG. And many of our members import and export unmanufactured wood products.

Mr. ROSE. But you are not the manufacturers trade association?

Mr. BERG. Yes, we are the national trade association for the forest products industry in the U.S.

Mr. ROSE. There was some question as to who you represented. That is why I am asking so many questions.

Mr. BERG. Well, actually we were recently, just the last year or so, consolidated from three national associations.

Mr. ROSE. And you might tell us what those three were.

Mr. BERG. The American Paper Institute, the National Forest Products Association, and the American Forest Council.

Mr. ROSE. Thank you. That is very helpful. Go ahead, sir.

Mr. BERG. As I mentioned, our members have a direct and substantial interest in the rulemaking and have worked with APHIS throughout the process. We are fully supportive of the deliberative approach APHIS has employed to carefully consider the question of the phytosanitary requirements.

And I think first and foremost I want to make sure that the record represents that we, the forest products industry, probably have the biggest stake in this issue than anybody. After all, it is our forest lands in this country that are at risk and we are as concerned as anybody about the potential harmful impacts of insect pests and diseases and the future health of productivity of the forests, and we have suffered the consequences of the gypsy moth outbreaks and the Chestnut bright and so forth, so we take this issue very seriously, Mr. Chairman.

We are also concerned about unnecessary delays and barriers to free trade, specifically the entry of imported forest products needed by U.S. manufacturers and consumers.

Another objective of ours is to minimize the administrative and compliance costs for both APHIS and prospective importers in adhering to these essential phytosanitary requirements, and also we are very concerned about how this rulemaking may affect international trade, our trading partners, and that it be consistent with overall trade policy objectives, either under bilateral trade agreements or under the GATT process.

Some of our primary concerns that are in more detail outlined in our written statement are that we feel that APHIS has done a very good job in developing and proposing these effective regulations to protect our domestic forests from exotic pests and diseases.

We share the concerns of APHIS regarding the risks of introducing exotic plant pests and diseases that may be associated with the importation of unprocessed wood products. We believe APHIS has the authority and the obligation to establish effective import inspection and control measures from manufactured wood products and that these measures must be effective.

And to address a question that came up earlier about heat treatment in the country of origin, having served in the Peace Corps and traveled internationally quite a bit, I am much more confident in our APHIS in this country to make sure that quality control standards are adhered to and the logs are sufficiently heat treated, either not too hot to destroy the quality of the wood, and not too cold to allow pests to be introduced, but to do it right.

And I really do not have much confidence that some of the developing countries that may be 50 years behind us in terms of technology can really do it as well as APHIS can.

We also agree with APHIS that pressures to increase importation of wood products will most assuredly accelerate as artificial resource supply constraints occur as a result of timber set-asides and environmental restrictions.

Reducing the Federal harvest, as was pointed out earlier, by 8 billion board feet in 5 years as anyone would expect would increase price pressures. We are seeing harvest levels accelerate in other regions of the country. A lot of our member companies are locating internationally to be able to bring wood into this country. In fact, the reductions that we have seen in the Northwest exceed the total harvest from several of the countries we are talking about here today, New Zealand and Chile, that only produce 6.5 billion board feet each year.

We further agree that the current practice of inspection at point of entry and prohibition of imports based on insufficient information is not satisfactory, particularly in light of this significant new interest in importing unmanufactured wood products. Importers need to be able to plan their transactions in an orderly planner and to meet credible and consistent regulatory requirements.

We believe that the proposed rule offers effective and efficient regulations to establish an organized system for importing unmanufactured wood products. APHIS conducted extensive investigations and risk assessments involving experts from academia, Government agencies, and the private sector, and APHIS has also prepared an extensive environmental impact statement on the rule that is well documented as far as we can tell.

And having worked at EPA for several years in a previous life, the whole NEPA compliance process is based on the proposition that if you have scientists there developing the regulations with public input, you will come out with a good result in the end. And I trust that that process was done in a professional way.

A major issue for us has been seeking a general permit for domestic species imported from Canada and Mexico. We think there is ample justification for the general permit that is proposed in the rule for Canada and Mexico, our neighboring countries, and if those bugs that were in those countries have not arrived yet, they probably will not.

Forest industry agrees with——

Mr. ROSE. Where are you—what page are you on?

Mr. BERG. Excuse me, I am on point number three now, forest industry agrees with the objectives of universal requirements followed by specific procedures——

Mr. ROSE. Let me ask you something. Most of your—a good part of your members make paper.

Mr. BERG. That is correct, sir.

Mr. ROSE. News print, probably. And they bring in Canadian trees to do that; is that right?

Mr. BERG. That is correct.

Mr. ROSE. And you are concerned about having a fairly import-friendly way to bring those logs in?

Mr. BERG. Most definitely, given the long history of importing wood from Canada.

Mr. ROSE. And is it reasonable to assume that somebody might want to transship some logs through Canada to come to you, or that would remove the price differential?

Mr. BERG. The general permit requires that the importer certify that the wood came from that neighboring State, not transported from some other country through that province to get to this country.

Mr. ROSE. Yes, I know about certifications and will talk to you about imported tobacco someday when you have an afternoon. But that is probably not a problem in your industry insofar as that is concerned.

Mr. BERG. It has not been and we do not anticipate it to be a problem.

Mr. ROSE. Okay. Now, how much—what is the worth of the paper in the average Washington Post or the average New York Times or the average Wall Street Journal?

Mr. BERG. I am not sure I can answer that question, Mr. Chairman. But I would be pleased to get back with you with the information.

Mr. ROSE. You have a horseback guess, now. I am sure you know how much—I mean——

Mr. BERG. I would say it would have to represent 20, 30 percent of the cost of the paper.

Mr. ROSE. Well, that is not——

Mr. BERG. Some papers cost—the Sunday edition is——

Mr. ROSE. I know the Sunday edition is bigger, but you know the Wall Street Journal and The Washington Post are all about the same size during the week. Is that a nickel's worth of paper, a pen-

ny's worth of paper, six mill's worth of paper? What are we talking about?

Mr. BERG. Any response would be a guess on my part, Mr. Chairman. I would say probably a nickel to a dime of the price. Let me get back with you on that in specific.

Mr. ROSE. And those contracts would be with different members—the papers would make contracts with different mills in your association for supplying them with their newsprint, would they not?

Mr. BERG. That is correct.

Mr. ROSE. And you would be quite sure that those three newspapers that I have named would not want to take any risk with respect to importing any pathogen that would harm America's forests, aren't you?

Mr. BERG. I would not think they would be interested in importing——

Mr. ROSE. Go ahead and finish your statement.

Mr. BERG. I am pretty close to the end. In fact, the last issue we had there, number three, was just to make the point that the regulations have some flexibility in them. We appreciate that flexibility that would allow importers that did not meet the universal requirement or the proposal for New Zealand and Chile to customize some procedures that would be appropriate for them.

Appreciate this opportunity to provide the comments from the American Forest and Paper Association to the subcommittee. We are looking forward to working with the agency and this subcommittee to resolve any of the issues that have been brought up here today, and would be glad to answer any questions.

Mr. ROSE. Thank you, sir.

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

Mr. ROSE. I am not picking on you. I have a great understanding of your industry because of my situation in my district with the paper mill close by. But I am saying with the concern that has developed in the minds of the American people with respect to using recycled paper, for example, I would think that the American people would be just as concerned with the use of recycled paper with the saving of our trees, with the ecologically friendly products that are brought into this country, and that they would want a safe protocol for that, and you basically agree with that. You are questioning the extent to which your industry might be forced to go as respect to, say, Canada or Mexico.

Mr. BERG. That has been our main concern.

Mr. ROSE. So you would be upset if they required heat treatment for all of the logs that you brought here for pulp purposes?

Mr. BERG. Right. We appreciate the additional protection depending on the risk. We think risk assessment is the way to go in this situation.

Mr. ROSE. I think that is a very responsible position.

Mr. DeFazio, any questions?

Mr. DEFAZIO. Yes, Mr. Chairman.

Mr. Berg, since you heard the extensive discussion on the heat treatment, I understand your concern particularly about certain developing nations, but certainly we can argue that New Zealand is

a well-organized country with an established form of government by the British for quite some time and I don't believe they suffer those same problems.

So let us just, absent the question of whether or not we can be assured that we have heat treatment following certain guidelines, adequate heat treatment which meets both the concerns those members of your industry are worried about, overtreatment, and the concerns of the scientists here about undertreatment or treatment at cooler temperatures, how much would that add to the cost of imported timber per thousand?

Mr. BERG. We prepared our comments, we had some discussion with our members on that. The feedback we got was that to put new facilities into a developing country would be cost prohibitive.

Mr. DEFAZIO. New Zealand is not a developing country. It is recognized I believe as an industrial nation.

Mr. BERG. For New Zealand, the argument we had was with facilities here in this country already in place to do it, why not do it here in this country? Why not have it done in another country that would have to build these facilities itself?

Mr. DEFAZIO. So you cannot give me a cost figure?

Mr. BERG. I cannot give you a cost figure. Our sense was that if you can control the pests, the mobile pests on the surface of the wood into 4 inches, the fungi and other things that are inside the wood are not going to be leaping off the back of log trucks as they drive by.

Mr. DEFAZIO. You, unlike Ms., I think it was Lorimer, who is from APHIS, you have been in a log sort yard?

Mr. BERG. Absolutely.

Mr. DEFAZIO. And a mill?

Mr. BERG. Yes.

Mr. DEFAZIO. Do you know any mills that are run to sanitary standards where we remove all the sawdust on a sort of nightly basis from the conveyors and underneath the machines and everything else, or on any regular basis between runs of logs? Do you not think it would be kind of expensive and impractical for a mill to sanitize itself after a run of foreign logs and only be certain that they run foreign logs?

Your average sort yard, in addition to the question of sitting out in the rain for 90 days in Oregon, or 60 days, whatever this standard is, on the edge of a sort yard with the forest 10 feet away, you are totally sanguine about this? You do not think there is any risk even for unknown pathogens which Ms. Lorimer admitted exist or we do not know they exist?

Mr. BERG. We acknowledge there are risks in this enterprise, but life is not without risk. There are certain risks we are willing to anticipate and our members are willing to accept that risk.

Mr. DEFAZIO. So is your industry willing to put up a trillion dollar bond or something to accept that risk? It is great to be sanguine, but we heard from DNR that the cost of spraying was 13.5 million for six gypsy moths; hundreds of millions for the European gypsy moth that was not borne by the industry. It is borne by the average taxpayer.

It is nice to be sanguine, but when you are passing the risk on to somebody else or on to another generation, I am not sanguine

about it. I am elected to represent both the industry, the people who work in the industry, and people who live in these areas in the forests and the forests of the Government and of private owners, and I am just not sanguine about taking this risk and I still do not understand the objection to a minuscule overseas investment in an unsophisticated facility to heat treat logs.

We are not talking about rocket science. We are not even talking about building automobiles like we do in Mexico. Now we are talking about putting logs in hot water for a certain period of time until the core reaches a certain temperature. This is not a major investment. This is not sophisticated.

I am just amazed at the stonewalling I am getting from our aspiring prisoner of war candidate and you on this issue. This is not an unknown technology. I am not even saying let's look at a new generation of technology in microwave or radiate the things.

I am just saying let's look at big pools of warm water heated by, good, you could use peat moss, coal, I don't care what you use to heat the water. If they do not have electricity in these far away lands they will have to put coal underneath them. I don't know. We can get them the coal. We have lots of coal.

So I do not understand the objection to treating on the other side and eliminating this risk. And I particularly do not understand it from your industry, because if anybody is going to get it stuck to them, it is people who own those lands. Because I can see if we incur some substantial costs, we are going to have to spread those costs somewhere and the first place I will look is the beneficiaries, not to people who live on suburban lots without harvestable trees.

Mr. BERG. We rely on our entomologists and pathologists to advise us on these issues.

Mr. DEFAZIO. What about these entomologists and pathologists here? You named a number of categories of people that participated, but by the time you named three categories, according to them, you had named half of each expert, widely diverse panel. But six people, in closely held meetings, in secret, came up with these regulations.

You can laugh, but it was not subject to an open meeting law, and this disturbs me. These people sat in a back room somewhere, and your industry, or whoever influenced them, certainly had a lot more access than people who had concerns on the other side. I have seen this effort with this administration and past administrations. Them that got, get more. They got access. They know when to be there; they know how to get there and whose buttons to push.

You clearly did not talk to other experts who have been involved in this process in the past. This was not a straight deal.

Mr. BERG. I was referring to our industry pathologists and entomologists, not the public agencies.

Mr. ROSE. Well, thank you for your answers.

Just in closing, I made a comment about a special effort within USDA that we might authorize as separate legislation to put more emphasis on exotic pests generally. You heard what I was talking about.

Dr. Cobb, do you have a comment on that?

Mr. COBB. I think that would be a very good idea. I think we ought to really seriously look at it. Exactly what form it would

take, I am not sure about that. This is a relatively new idea. But there were times in the past when there were enough research forest pathologists and entomologists around the country that we used to send them abroad to do some of this work.

At this point you hear a lot about forest health these days, but, on the other hand, if you look at what is going on underneath, you will find that the research staffs involved in pathology and entomology have shrunken very badly. And we simply do not have the personnel to handle the research needs anymore. We certainly do not have it.

Mr. ROSE. Mr. Russell seemed to agree with that when he was talking about the limited resources that your State has for what this discussion here is about, and you said, we are involved because we care about this issue. Did you hear my suggestion that we need to make a more special effort?

Mr. RUSSELL. Right, I agree.

Mr. ROSE. At the Federal level. And I am not sure necessarily has to be cooperating with the State level. Because you all do not make your own budgets. Some legislature somewhere negotiates with your department head, and if the Federal Government is going to put—if you have been putting $500,000 into something and the Government offers you 500,000 to piggyback, the resulting program is rarely a million dollars. It is usually the State cuts its portion to 200 and uses its 300 somewhere else and takes your 500 and says, my God, we have gone to a $700,000 project.

Now, that is not universally done. I am not trying to generalize and cover everything, but I know the pressures that are on State governments. I also know how scarce it is to get any money from the Federal Government. Any reaction to that proposal?

Mr. RUSSELL. We would support added input in exotic pests, and as Fields Cobb has said——

Mr. ROSE. How you do it is something else.

Mr. RUSSELL. We need more researchers and more detail on individual pests and knowledgeable people that can create a good program for preventing these pests, taking care of them before they ever get here. All these things are something that is desperately needed. And we are so understaffed in trying to deal with it.

I felt just like a little ant when I met this chip ship in Longview, Washington. This one chip ship would fill this building to the ceiling—the entire building with chips. And here Eric Lagasa, the entomologist in the Department of Agriculture, and I are supposed to look at this ship. It just blew us away because we realized the immensity of the thing. And if there is one pest in there, how in the heck are we going to find it?

And that is what we need, is an assessment by the importing companies. We need people to be there 24 hours a day to watch the ship, because there are chips that fall off the ship into the river. We were concerned about that. We watched the chips floating down the Columbia River. We said what is in those? We do not know. So those are the kinds of things that if we had more people to work with, we could monitor those things.

Mr. ROSE. All right.

Dr. Belsky, any comments about the need for more effort, more funding for USDA directly to concern itself with this?

Ms. BELSKY. Yes, as a research scientist myself, I do believe we need more research and we need to be educating more graduate students to do this type of research. We also need more scientists to be working in the USDA and other organizations so that they can recognize the pests.

Yes, I think that we would agree with your new idea, but we also want to say that until we have the research finished, we have to be very, very careful about bringing in new pests.

Mr. ROSE. Totally agree. Dr. Lattin?

Mr. LATTIN. Yes, sir. I would refer you to the OTA document which came out last September, because there was a very careful investigation—there are many parts to this question, and over and over again it pointed out the actual efficiency, financial and otherwise, of being at the first line of defense, which is as the things are coming in, or doing what you can to prevent their arrival. So I surely would support what you are proposing.

I would also point out that these facilities, if our research efforts are to be made, they should also be made on a regional basis, because most of what we have been talking about has centered on the Pacific Northwest and there are many other areas that should be examined. I just feel very uncomfortable being asked to solve a problem from our area for the whole country. But the problems are somewhat similar, so you can get economy of scale without a doubt. Thank you.

Mr. ROSE. Mr. Berg?

Mr. BERG. As I mentioned in my testimony, with the shifting in timber supply offshore and the level of interest of our companies in foreign sources of wood, I think it makes a lot of sense for APHIS to ramp up their program substantially to anticipate those substantially increased imports. So I would support the suggestion.

Mr. ROSE. It may have to be something between APHIS and ARS, but generally within the U.S. Department of Agriculture.

I want to thank all of you for your testimony. It has been a very helpful hearing and the committee stands adjourned.

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

[Whereupon, at 2:15 p.m., the subcommittee was adjourned.]

REMARKS OF THE HONORABLE PETER DEFAZIO
Before the Subcommittee on Specialty Crops and Natural Resources
June 29, 1994

First Mr. Chairman I want to thank you for holding this very timely and very important hearing. The Department of Agriculture's Animal and Plant Inspection Service -- which is charged with regulating the importation of possibly harmful plant materials into this country -- has proposed rules to govern the import of unprocessed wood products from the forests of Siberia, Chile, New Zealand and elsewhere.

The stakes are extremely high and the risks great. The only decent assessment of the risks posed by log imports that has been done to date was undertaken after I led an effort to force the Department of Agriculture to place a temporary ban on log imports from Siberia. The Agriculture Department took this belated step only after at least one test shipment was allowed into the country. Following the ban, the Forest Service undertook a pest risk assessment in Siberia that spelled out the risks to the health of our forests posed by imported wood products.

The Siberian Pest Risk Assessment concluded that foreign plant pests and pathogens have the potential to cause between $25 and $58 billion in damage to public and privately owned forest resources in the Western United States. The aesthetic, recreational and other non-quantifiable costs could be vast.

Unfortunately, the pest risk assessments for New Zealand and Chilean timber were nowhere near as thorough as the Siberian team's effort.

The record of damage to U.S. forests from devastating foreign plant pests and pathogens gives us ample reason for concern. Asian Chestnut blight, Dutch Elm disease, white pine blister rust, Port Orford Cedar root rot -- the list goes on and on. The ongoing costs of controlling these introduced pests are astronomical. Take for example white pine blister rust, which is estimated to have infected pine stands covering more than 9 million acres in the West. More than $100 million has been spent on largely ineffective control efforts since 1959.

The toll during the latter part of this century for damage inflicted by foreign pests and diseases is certainly in the range of trillions of dollars.

Unfortunately, APHIS does not seem to be taking its responsibilities very seriously. Instead of placing the health of U.S. forests first, the agency has buckled under to the short term interests of a few timber importing firms. APHIS's proposed strategy to eliminate plant pests and pathogens on logs from New Zealand and Chile is a joke without any proper foundation in science and seems to have been decided upon after only cursory consideration of the potential impacts.

Under APHIS's proposed regulation, it is not a question of whether we will introduce new and harmful plant pests and diseases -- it is a question of how soon the introduction takes place and how damaging the introduced pests and diseases prove to be.

The mitigation regime for New Zealand and Chilean logs depends first of all on self-certification by the exporting firm. The mitigation measures themselves won't kill many of the most harmful pests and pathogens likely to infect the logs and APHIS knows it. To make up for the sham mitigation regime it is proposing, APHIS promises that visual inspections of a portion of a shipload of logs combined with careful handling once the logs are on shore will provide the margin of safety that methyl bromide fumigation does not.

Mr. Chairman -- I have the greatest sympathy for mills in my State. The timber supply shortage is real and it is immediate. But the solution does not lie in risky imports of foreign timber. Not at a time when the Pacific Northwest EXPORTS 20 to 25 percent of all the timber harvested in the region.

That's right. One in every four logs cut in Oregon and Washington is exported. Most of that timber goes to the protected Japanese milling industry -- 16,000 gyppo mills in Japan cutting high quality Douglas Fir and Hemlock from the Northwest, while our mills are reduced to buying much lower quality radiata pine from Chile and New Zealand -- at great risk to the health of the Northwest's incomparable forests.

The potential for a forest health catastrophe caused by imported logs cannot be overstated. I am confident that by the time this hearing is finished you will share my concern, Mr. Chairman, and agree with me that the Department of Agriculture's Animal and Plant Health Inspection Service is failing in its responsibility to protect forest health.

Remarks of B. Glen Lee
Deputy Administrator, Plant Protection and Quarantine
Animal and Plant Health Inspection Service
United States Department of Agriculture
before
House Committee on Agriculture
Subcommittee on Specialty Crops and Natural Resources
June 29, 1994

Chairman Rose and members of the Subcommittee, it is a pleasure to appear before you today to discuss the proposal of the U.S. Department of Agriculture's (USDA) Animal and Plant Health Inspection Service (APHIS) to establish guidelines for the importation of logs and lumber. This is an issue of emerging importance to APHIS and the American public, and one that sparks fairly intense debate among a number of interested parties, including scientists, environmental groups and timber-related industries.

I would like to use my time before you today to explain the history and rationale behind these regulations and the effects they could have on agricultural and forest health if approved. To begin, I will provide a brief synopsis of the events that led to the development of these regulations.

HISTORY

The United States is rich in forest resources and because of this, we historically have imported only small quantities of foreign logs and lumber. Most of these imports have come

from parts of Canada where climatic and pest conditions are very similar to our own. Therefore, there was no need for regulations governing the importation of wood from distant countries where exotic forest pests of concern exist.

However, in the late 1980's, several complex environmental, economic and strategic forces combined to reduce the amount of harvestable timber in this country, while at the same time timber supplies worldwide rose.

Siberia was one of the first of several regions to express an interest in supplying the U.S. timber industry with raw wood. We agreed to allow log shipments in on a trial basis. We worked closely with state officials from Oregon, Washington and California to evaluate two test shipments of Siberian logs. Our inspection detected a number of pests in the untreated bark and wood that could have been harmful to our forests.

Concern over the pest risk associated with the test shipments prompted APHIS to ask the Forest Service to conduct a detailed pest risk assessment on Siberian larch. Scientific experts from a wide range of institutions and disciplines participated in the risk assessment. The results of this assessment indicated that a high pest risk was linked with the unregulated importation of raw Siberian larch logs.

Shortly thereafter, based on requests to allow log shipments from Chile and New

Zealand into the United States, APHIS asked the Forest Service to conduct two more pest risk assessments. APHIS used these risk assessments to develop mitigation measures to minimize the potential for plant pest introduction in the United States. Since then, we have published interim rules that provide for the safe importation of Monterey pine logs from Chile and Monterey pine and Douglas fir logs from New Zealand.

During the course of these actions, it became apparent that it was necessary to develop comprehensive regulations to govern the importation of timber and timber products on a worldwide basis. Therefore, on January 20, 1994, APHIS published a proposed rule in the Federal Register that would establish general guidelines for the importation of logs, lumber and other unmanufactured wood products. Under these guidelines, importers would be able to import logs from any country under universal treatment requirements that include debarking and heat treatment. If an importer finds meeting these universal requirements commercially impractical, the importer can request that a risk assessment be conducted for a specific product. In this case, other treatment alternatives may be approved. The proposed rule would also incorporate two previous interim rules that establish specific treatment requirements for certain logs from New Zealand and Chile. In the proposed rule, we solicited public comment and have received about 80 written comments. We are still in the midst of the administrative rulemaking process, so I am not at liberty to discuss any final action at this time. However, I assure you that every comment we received during the comment period in response to the proposed rule will be considered and addressed in our final rule.

In another attempt to gauge general public opinion on this issue, we held two well-publicized public meetings, one in Portland, Oregon, and the other here in Washington. Attendance at the Portland meeting was good. Public comment there indicated unanimous support for APHIS' attempt to establish regulations for the importation of logs and lumber; differences were expressed as to the degree of restrictiveness in the regulations. We convened a second meeting in Washington, DC, where no oral comments were presented.

In addition to soliciting public comment on the proposed rule and holding two public meetings, we also have developed a draft environmental impact statement which was published 2 months ago. The draft EIS examines six alternatives of varying restrictiveness, including a no action alternative. We received 34 written comments that express a variety of points of view. We are in the process of preparing the final EIS now and expect it to be published sometime this summer.

RATIONALE

The principal rationale behind our proposal was to protect the agricultural and natural resources of this country by preventing the entry of foreign pests and diseases.
We gathered the best information available from industry, academia, environmental groups, the Forest Service, and other government agencies and used that to arrive at a proposal we believe is balanced and fair.

Second, we strove to achieve a balance among the interested parties' views. We

understand the logging industry's need for wood and appreciate the changes that have occurred in their industry in the last several years. We also understand the environmental perspective and the repercussions our actions could have on our national forests and recreational lands.

Third, we believe any policy affecting trade should be based on sound science. These regulations provide a legal platform to apply sound science to the regulation of timber products.

We are fortunate to enjoy a very positive and productive partnership with the Forest Service. We continually rely on their expertise in technical forestry issues, and their assistance with this issue has been invaluable.

EFFECTS AND BENEFITS

Before coming here today, I took a quick poll of the programs we are conducting around the country and I discovered that we have a major pest or disease eradication program underway in almost every State represented by this subcommittee. Many of the States represented here currently have infestations of gypsy moth. Other states represented here recently have been forced to deal with the pine shoot beetle and the effects it has had on the Christmas tree industry and other forest resources. These are just two of the pests we must address by enforcing restrictions and guidelines on the importation of foreign agricultural commodities.

Our proposed regulations not only provide the first mechanism for the importation of unprocessed wood, they also stipulate specific treatments and procedures required to bring raw wood into our country that will protect our natural and agricultural resources from foreign pests and diseases.

Timber imports have not been tremendously problematic in the past, mainly because the volumes have been so low. But as interest in importing raw wood grows, so does the risk of importing harmful pests and diseases. We are responsible to the American taxpayer to make sure exotic pests and pathogens do not enter our country along with imported wood products.

Thank you for the opportunity to discuss this issue with you. I am happy to answer any questions you may have at this time.

Follow-Up Questions to the June 29, 1994, Hearing on Log Imports Prepared by the Animal and Plant Health Inspection Service

1. Please provide data on the shipments of logs that have entered the United States under the interim rules established for Chile and New Zealand.

Port	Arrival	Origin	No. Logs	Interceptions
Eureka, CA	11/93	N.Z.	4,577	None
	12/93	N.Z.	4,084	None
	1/94	N.Z.	5,388	None
	5/94	N.Z.	4,168	None
Sacramento, Ca	12/93	N.Z.	22,085	None
	1/94	N.Z.	31,083	No actionable pests
San Francisco, CA	6/94	Chile	187	None
Long Beach, CA	2/94	N.Z.	4,203	None
	3/94	N.Z.	4,068	None
	5/94	N.Z.	3,784	None
Coos Bay, OR	3/94	N.Z.	25,732	No actionable pests
	5/94	N.Z.	25,000	No actionable pests
Longview, WA	5/94	N.Z.	5,313	None
Seattle, WA	8/93	N.Z.	450	None
	10/93	Chile	75	None
	10/93	Chile	75	None
	10/93	Chile	150	None
	2/94	Chile	200	None
	3/94	Chile	102	None
	3/94	Chile	200	None
	4/94	Chile	206	None

2. Please provide data on the relationship between increased imports and increased occurrence of pathogens.

A definite relationship between increased imports and increased occurrence of pathogens is difficult to determine. We maintain statistics on inspections and interceptions but correlation is difficult to indicate or prove. The following information on inspections and interceptions is provided for 4 recent fiscal years:

	FY89	FY90	FY91	FY92
Inspections of regulated & non-regulated cargo	1,027,286	1,051,580	1,109,175	1,065,373
Interceptions of quarantine significant pests	47,773	47,158	53,460	47,386

3. What is the number of entomologists APHIS has on staff?

The Plant Protection and Quarantine division of APHIS has five entomologists at its Biological Assessment and Taxonomic Support Staff in Hyattsville, Md. These individuals are primarily engaged in pest risk and identification activities.

4. What are your plans with respect to the use of methyl bromide after this chemical is phased out of use?

The timber and timber products regulations were written with the knowledge that methyl bromide would be phased out in the next few years. All of the methyl bromide requirements presented in the regulations have alternative treatments that are provided in the regulations. APHIS is working with industry to develop and implement alternative pest mitigation measures (e.g. irradiation, heat, borate, etc.) to replace our reliance on methyl bromide for the importation of timber and timber products.

5. What is the rationale behind the policy to heat treat New Zealand and Chilean *Pinus radiata* (lumber derived from whole logs) in the United States instead of in the country of origin?

The proposed rule requires that temperate softwood log importations be heat treated in the country of origin, unless it has been demonstrated that the pest risk can be reduced to an insignificant level by other mitigation measures. The detailed risk assessments completed by the Forest Service for New Zealand and Chile showed that the pest risk associated with the importation of managed plantation grown *Pinus radiata* was less than for most other types of whole raw log imports. APHIS determined that a comprehensive and overlapping mitigation sequence would provide the needed protection against introduced pests without requiring heat treatment of the logs in the country origin.

At present, the heat treatment for imported whole softwood logs is not practical. The requirement to heat treat whole *Pinus radiata* logs from New Zealand and Chile would have, in essence, resulted in prohibiting the importation of the logs. What is practical is the kiln drying of the sawn lumber in the United States.

For most high-risk log importations, heat treatment before entry into the United States is justified to prevent pest introduction. However, for the much lower risk *Pinus radiata* grown in New Zealand and Chile, it would be an unjustified burden on the importer to require the heat treatment of the logs since it has been demonstrated that an alternative

mitigation sequence (including the kiln-drying of the lumber in the United States) affords nearly the same level of protection.

6. What is the explanation and scientific justification for APHIS' decision to deviate from the recommendations of the Forest Service scientific advisory panel with respect to the import protocol for New Zealand and Chilean pine logs?

The Forest Service's Scientific Review Panel recommended a temperature of 71° centigrade for 75 minutes to treat Siberian larch. However, based on the Canadian/EEC Task Force Study on Pasteurization of Softwood Lumber, the proposed rule used a lower temperature of 56° centigrade for 30 minutes. Since the proposed rule was published, APHIS has received additional research data which indicate that the lower temperature is not effective against certain plant pests. This new information has prompted and APHIS to reevaluate the heat treatment requirement. This matter is still under consideration.

In a related matter, at APHIS' request, the Forest Service prepared the report entitled, Scientific Panel Review of January 10, 1992, Proposed Test Shipment Protocol for Importing Siberian Larch Logs. This review panel focused on test shipments of Siberian larch logs from the former Soviet Union, not plantation-grown pine from New Zealand and Chile. Because of the Scientific Panel's report, test shipments of Siberian larch logs were stopped.

To examine the possibility of other, less risky sources of logs, APHIS asked the Forest Service to prepare and publish two state-of-the-art risk assessments, one for importations of logs from New Zealand (Forest Service Miscellaneous Publication No. 1508, October 1992) and Chile (Forest Service Miscellaneous Publication No. 1517, September 1993). These documents were based on the best scientific information available and clearly showed that the pest risk associated with the importation of managed, plantation-grown pine logs from these locations had fewer risks than that demonstrated for forest-harvested Siberian larch logs. Both the Forest Service and APHIS agreed that safe importation of these plantation-grown pine logs was possible under rigorous regulatory mitigation requirements.

The Forest Service and APHIS have worked together to provide our Nation's forests with the most protection possible with the least amount of negative impact on international trade. APHIS has relied upon the expertise of the Forest Service on technical issues and has not, or does APHIS plan to, deviate from Forest Service's recommendations.

Garland Gallacher

Rains Shout

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STATEMENT OF
MICHAEL RAINS, ASSOCIATE DEPUTY CHIEF
FOREST SERVICE
UNITED STATES DEPARTMENT OF AGRICULTURE

Before the
Subcommittee on Specialty Crops and Natural Resources
Committee on Agriculture
United States House of Representatives

Concerning

APHIS Proposed Rule
on the Importation of Logs, Lumber,
and Other Unmanufactured Wood Articles

June 29, 1994

MR. CHAIRMAN AND MEMBERS OF THE SUBCOMMITTEE:

Thank you for the opportunity to offer our views on APHIS's proposed rule on the importation of logs, lumber, and other unmanufactured wood articles. (Federal Register Vol. 59, No. 13; January 20, 1994)

I am accompanied by Dr. Nancy Lorimer from our Forest Pest Management staff here in Washington.

Endorsement of Regulations

The Forest Service strongly supports the proposed rule on the regulation of wood imports by the Animal and Plant Health Inspection Service (APHIS).

Before the proposed rule was published, the United States was one of the few major countries without regulations to protect native forests from pests that may be introduced by log imports and other unmanufactured wood products.

The proposed rule is also necessary because of the significant changes that have occurred in global markets. The changes have opened new sources for importing logs and other wood products into the United States.

Finally, the proposed rule will clarify trade requirements and procedures.

Pest Risk and Consequences

There are many forest pests in other countries that could be introduced into the United States with imported logs and other wood products. Defoliators, bark beetles, wood borers, rusts, rots, and other pests have the potential to damage native forests at least as severely as pests that have previously been introduced.

Historically, introduced pests have caused serious environmental damage and economic losses to the nation's forests. Introduced pests have altered tree species composition, reduced biodiversity, diminished scenic values, and altered wildlife habitat. Non-native insects and diseases such as chestnut blight, Dutch elm disease, white pine blister rust, the gypsy moth, larch casebearer, and hemlock wooly adelgid have cost local, State, and Federal agencies, and private landowners billions of dollars for control-related activities.

However, the most effective way to protect our forests from introduced pests is to prevent their entry into the United States, and the proposed rule will contribute to this goal.

Regulated Articles

Because pests in the bark or deep within the wood are invisible to inspectors, unprocessed logs are the most hazardous to import without a pest risk analysis and appropriate prevention or control methods.

Regulations for crating and dunnage are also important. This unprocessed wood material, commonly used as packing for many products in international trade, is also a potential source of forest pest introductions. Dunnage may have been the source for the accidental introduction of the European pine shoot beetle, *Tomicus piniperda*, discovered in the Lake States in 1992, and for this year's potential introduction of another serious bark beetle, *Ips typographus* into New Jersey.

The highest probability of foreign pest establishment is from countries with a climate and host trees similar to the United States. However, forest insects and diseases have proven to be highly adaptable and shifts of pests to new hosts have been documented. Therefore, pests from countries with trees and climates unlike those found in the U.S. should still be considered as threats to our forests.

Cooperation with APHIS

The risk of new pest introductions as a result of unprocessed log imports is of serious concern to APHIS and the Forest Service. In response to this threat, the agencies have a memorandum of understanding to clarify the roles of the two agencies. APHIS is responsible for regulating the entry of plant and animal material into the United States. The Forest Service is responsible for protecting native forests from adverse effects of insects and diseases and is a source of research knowledge on the risk of introduced forest pests.

Pest Risk Assessments

The Forest Service has cooperated with APHIS to establish a rigorous process for conducting science-based assessments of pest risks associated with importation of logs and similar unmanufactured wood products. When there is a request to import logs and other unmanufactured wood products, APHIS notifies the Forest Service to conduct scientific panel reviews of these importation proposals.

We have produced forest pest risk assessments for the importation of larch logs from Siberia; Monterey pine and Douglas-fir from New Zealand; and Monterey pine and native hardwoods from Chile. These risk assessments span a range of situations and provide most of the scientific bases for the new regulations.

We believe this formal pest risk assessment process is an effective means of identifying and quantifying risk. The risk assessment team, comprised of experts in entomology, pathology, and economics, first assembles a data base of scientific knowlege on the trees and pests of the country of origin. The team then proceeds with a formal process to analyze the potential risks of a pest becoming established in the United States.

Mitigation

The pest mitigation treatments in the proposed regulations address the risks identified in the pest risk assessments. Treatments such as heating logs to a specified temperature for a specified length of time, de-barking, insecticide and fungicide applications, and prescribing times between harvest and shipment, are often adequate to minimize the pest risk.

International Cooperation

In addition to the concern for unprocessed log imports to the United States, the Forest Service has also worked with APHIS in an ongoing program to harmonize log import regulations and to share the pest risk assessment process with our continental neighbors, Canada and Mexico.

Summary

The risk of new pest introductions as a result of unprocessed log imports and other wood products is a serious concern as exotic insects and diseases continue to be costly environmental and economic problems in our forests. The Forest Service role in the development of log import regulations has been to cooperate with APHIS to ensure that all reasonable efforts are made to prevent the establishment of introduced pests, while still providing an opportunity to import these products into the United States.

This concludes my testimony. Dr. Lorimer and I will be pleased to answer any questions you may have.

87-432 O - 95 - 3

COPY

April 19, 1994

MEMO TO: Chief Regulatory Analysis and Development
PPD, APHIS, USDA
Room 804, Federal Building
6505 Belcrest Road
Hyattsville MD 20782

FROM: John D. Lattin
Systematic Entomology Laboratory
Department of Entomology
Oregon State University
Cordley Hall 2046
Corvallis OR 97331-2907

SUBJECT: Comment on Docket No. 91-074-3, Importation of Logs, Lumber and Other Unmanufactured Wood Products

I am responding to Docket No. 91-074-3 regarding the Importation of Logs, Lumber, and Other Unmanufactured Wood Products. This item attempts to draft broadly applied regulations for the United States rather than deal with these matters on a piece-meal basis. Besides raw logs, other wood products are included. This makes good sense, especially the inclusion of green dunnage, almost certainly the source of the bark beetle recently introduced into the Great Lakes region.

While I made extensive oral comments on this docket item at the public hearing held in Portland, Oregon, the transcription of that meeting was so poor that a written version is deemed essential. Whoever transcribed that tape certainly lacked familiarity with ~~the~~ English.

As I have commented previously (Memo dated 5 January, 1994 regarding Docket No. 91-074-5) it is encouraging to see USDA/APHIS deal with the problems of wood importation on a broader scale but it is unsettling to realize that virtually all of the material discussed is, in reality, based upon the risk assessments of the Soviet Far East, New Zealand, Chile reports. I have seen no similar analyses on any other part of the United States - e.g., the risks likely to be present with the importation of Caribbean Pine, now grown extensively in plantations in South America and elsewhere on the pines of southern United States - risks that are certainly as great as the three already examined. Further, I do not recall hearing of any risk assessments of hardwood or conifer logs for the east coast or the Great Lakes region or even anything related to NAFTA.

In reviewing items continued in this Docket, I found that I had addressed virtually every one of them before, the latest version is the January 5, 1994, memo regarding Docket No. 91-074-5. Accordingly, I am attaching a copy of that memo with this one for inclusion in the public record for the present Docket No. 91-074-3.

I find it curious that the Revised Test Shipment Protocol produced and dated March 26, 1992, and presented to the Forest Service has not only been ignored by APHIS, but modified in ways not even explained. Namely, that (1) all treatments be done at point of origin not 60 days after arrival in the U.S., (2) fill in missing information on thermal death points on some organisms at point of origin, (3) heat treatment should be 71.1°C (160°F) for 75 minutes (not 56°C for 30 minutes as recommended in Docket No. 91-074-3) and that this heat treatment was to be applied at point of origin! Statements about methyl bromides are also strange--especially so since the publication of Cross of New Zealand (1991) stated that only 100 mm penetration occurred on logs and concluded it was an ineffective way to solve the problem. What about pests deeper that 100 mm?

There have been repeated inquiries regarding the proper treatment of wood chips and how effective methyl bromide is on such material. One shipper of chips informed me that there was very little diffusion in wood chips because of compaction. Where is the scientific documentation on fumigating wood chips? One individual suggested shipping pulp rather that chips might be effective (Some of this is already happening).

I would like to close by citing a very recent example of the consequences of your "Interim Ruling on New Zealand Logs." The shipment came into Coos Bay, Oregon (Gazette-Times, Thursday, March 24, 1994). According to the report, the shipment was radiata pine, about 3.3 million board feet (represented by about 26,000 logs). These logs had been debarked, treated with several fungicides and several insecticides and fumigated with methyl bromide. The accounts in the paper did not mention that 110 red cedar logs also were included in the shipment and listed on the manifest. According to the interim regulations, the radiata logs are to be heat treated within 60 days of arrival. Because of other regulations unfamiliar to me, the red cedar logs were to have been heat treated at point of origin, but had not been so treated prior to their arrival in Coos Bay. They were placed in quarantine at the harbor.

Chief Regulatory Analysis and Development
April 19, 1994
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I was informed by the USDA/APHIS Portland office that the standard sampling procedure for logs was to select one log per flat for increment boring to be examined for insect damage, nematode presence, and disease organisms. Once the samples had been taken and the logs visually inspected, the logs were released. I was also informed that it may take as long as 3 months to get the results from these samples. With that potential turn-around time schedule, combined with the proposed 60 days for applying heat treatment (The only sure way to assure low risks), one might be able to bring in 1,560,000 logs (one ship per day for 60 days) even before the sampling results of the first shipment had been received. Following your standard practices, these logs would have been released for processing. Do you really believe this is an appropriate path to follow?

Here we are, trying to develop a sustainable forest resource base in the Pacific Northwest and ineffective regulations such as these are being proposed--almost on the day the Forest Plan was presented for legal reconsideration. When the disastrous consequences of non-indigenous species on the forests of the Northeast can be seen today, just why are we trying so hard to duplicate this in the Northwest? Forcing the issue before we have adequate information and effectively proven regulations, properly applied, can only result in similar disasters. Just who will be willing to take the blame for such actions?

One final question--just why were the Revised Test Shipment Protocol recommendations from the Forest Service Scientific Panel ignored and replaced by weaker, altered recommendations?

dmw
c: R. E. Berry

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April 26, 1994

MEMO TO: Mr. Jack Edmundson
Branch Chief, Environmental Analysis and Documentation
Biotechnology, Biological, and Environmental Protection,
APHIS, USDA
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Hyattsville MD 20782

FROM: John D. Lattin
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SUBJECT: Comment on Draft Environmental Impact Statement (DEIS) on the Importation of Logs, Lumber, and Other Unmanufactured Wood Articles.

I am responding to a request for comment on the draft EIS on the Importation of Logs, Lumber, and Other Unmanufactured Wood Articles. Since I have responded in detail on all previous requests for comments, I am attaching copies of two previous memos that deal with much that is contained in the draft EIS. These memos–dated January 5, 1994, covering Docket No. 91-074-5 and April 19, 1994, covering Docket No. 91-074-3 should be attached to this memo for inclusion in the public record. Further, I am including a copy of Arthropod Diversity and Conservation in Old-Growth Northwest Forests, American Zoologist 33:578-587. 1993. Lattin, John D. Please note page 584.

The comments below will follow the outline of the Draft EIS.

1. Introduction

The shortage of logs in the Northwest is not due to greater demand as you indicate but rather on the fact that harvest rates have exceeded replacement rates for a number of years (Beuter Report and Sessions Report). It was the final recognition of this fact that led to the current controversy and ultimately to the Presidential Timber Conference in the Spring of 1993.

While the charge of APHIS is to protect our country's agricultural and forest resources from plant pests, your basic policy certainly hampers your success–"that is, its willingness to allow many types of imports that pose unanalyzed, or incompletely analyzed, risks." (Office of Technology. 1993. Harmful Non-Indigenous Species in the United States p. 115) It is time that your operating policy truly reflected your official charge.

The "test shipments" of logs from the Soviet Far East were infested with insects, nematodes, and diseases–that is far more than "...demonstrated the potential for the introduction of pest species of insects, nematodes, and plant diseases." (p. 1). Contrary to your statement, the main reasons the Siberian Logs were banned from importation resulted from the intervention of the Oregon House Delegation in 1990 (OTA 1993 p. 118) that was then followed by the formation of the Siberian Raw Log Risk Assessment Team in 1991.

Mr. Jack Edmundson
April 26, 1994
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The interim regulations that were put into place by APHIS on New Zealand and Chilean log importations were flawed and generally ignored the recommendations of the 1992 US Forest Service Science Team that was formed to develop the protocol for such actions (see attached memos dated January 4, 1994, and April 19, 1994). Your priorities are reversed–your charge is to protect American natural resources first and then assist in trade.

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Your section on historical perspectives provides an eloquent statement on the risks and consequences of pest introductions. This is especially true for the portion on white pine blister rust that clearly demonstrates the dramatic impact even a single species may have on an ecosystem. When these impacts are associated with a species of interest, i.e., white pine, the consequences are more visible. One can not help but wonder how many other examples of this occur that have more subtle impacts on ecosystems whose consequences may take years to surface. It seems more than a little ironic that two of your examples were identified as serious risks by the Siberian Log Team - e.g. The Eurasian poplar rust fungus and the Asian Gypsy Moth. Certainly, the Siberian report was far more comprehensive and better documented than either of the reports on New Zealand or Chile. When we have scientific expertise it seems foolish to fail to utilize it and instead use far smaller groups to conduct the analyses. The lack of credibility of the latter reports was reflected by the attitudes of the scientific community.

The inclusion of the pine shoot beetle, of course, makes a strong case for your inclusion of green dunnage into the regulations. That is a most appropriate inclusion indeed. One might add that the concern over this bark beetle exactly parallels the case of another bark beetle - *Hylaster ater* - considered a four-star pest in Europe but virtually ignored by the New Zealand and Chilean teams - both considering the species of no importance! (It does not now occur in the United States).

Finally, the reliance on methyl bromide as a major component of the regulations certainly flies in the face of the virtual certainty that its use will be terminated shortly because of its impact on the ozone-layer. Merely "satisfying" the requirement of E.O. 12114 is hardly enough.

2. Purpose and Need.
It is true that inspections of all items is virtually impossible, especially when the sampling procedure is to remove a subsample. It is also true that increased importation activity increases the likelihood of accidental introduction. Extra care is required to craft regulations to assure that in fact these introductions do not occur.

3. Alternatives
Alternative 1 - No Action
Unacceptable. Your outline of likely consequences of no action is precisely what should be the basis for an adequate protocol.

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Alternative 2 - Proposed Regulations (Preferred Alternative)
As stated, the regulations proposed are to expand the current interim regulations on New Zealand and Chilean logs. However, I have seen no other analyses to cover, in detail, such commodities as wood chips, or even logs from other countries or areas to be brought into the south, the southeast, east, or northeast. The conifers of the south are especially vulnerable from pest organisms found in similar warm climate pines - yet nothing has been done here. The same applies to wood chips from pine plantations in central and South America--prime contributors of pest organisms. Work is needed to obtain new, effective modes of treatment for the wide variety of articles, not extrapolations from a few, previous efforts (i.e. T312).

My memos dated January 5, 1994, and April 19, 1994 (attached) cover the details of the regulations outlined under alternative 2. As previously stated by me, there are two major flaws in these proposed regulations: (1) All heat treatments should be made at point of origin and (2) the temperatures recommended are inadequate, it should be 71°C for 45 minutes (center of log). Both of these details were included in the protocol recommended to the US Forest Service by the Science Panel in March, 1992. Also included were recommendations that appropriate new information on thermal death points for a variety of insects, diseases, and nematodes be obtained--at point of origin. As stated in my memo dated April 19, 1994, your proposed regulation to allow 60 days before heat treatment is applied after arrival in the United States is nothing short of disastrous. You keep saying, "Finally, in order to accomplish APHIS' mission (elimination of pest introductions)..." (p. 21), but you provide pest organisms 60 days to escape! This fact, combined with the delay on receiving the results of log samples (up to 3 months) that might allow the entry of 1,560,000 logs before you knew there was a problem, makes your claim of elimination of pest introductions a hollow one and a very dangerous one for the protection of the Northwest forests (and other forests as well, especially the southern conifer plantations). You must reconsider this aspect of your regulations. Putting trade ahead of your very agency mission when the technology exists to assure pest-free logs is simply wrong (OTA 1993). With NAFTA and GATT agreements being developed, we must have the proper regulations in place to allow the development of a sustainable forest resource in the United States.

Alternative 3 - Prohibit Untreated Wood Except Packing Material
Unacceptable so long as packing materials are excepted. The pine shoot beetle almost certainly entered the US via green dunnage.

Alternative 4 - Prohibit Untreated Wood
This is the preferred alternative since it requires all wood to be treated regardless of source. Exceptions simply ask for other exceptions that weaken the entire process. It seems reasonable to encourage research to address what might be a special case for some tropical hardwoods. Of course the answer might well be to create added value to the wood before it leaves the country--processes that usually includes proper drying in the first place.

Alternative 5 - Prohibit Unmanufactured Wood Except Packing Material
Unacceptable on the grounds that packing material should be treated. This seems like a "manufactured" alternative. You clearly state the dangers of untreated packing materials in this DEIS and in the proposed regulations--then turn around and offer its exclusion as a valid alternative!

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Alternative 6 - Prohibit Unmanufactured Wood
This is an excellent proposal and reflects the regulations of Europe, New Zealand, and Chile--no raw logs allowed! But, you weaken this alternative by failing to adequately deal with the question of green dunnage--in itself a simple matter, heat treat it. You have used green dunnage as a red herring. You have failed to propose the obvious Alternative 7 - Prohibit Unmanufactured Wood and deal with green dunnage via adequate heat treatment to kill the potential pest organisms. Further, you state on page 27 that unreasonable restrictions are placed on the importation of articles that have very little potential for introducing plant pests. Indeed, the prohibition of unmanufactured wood (i.e. logs) means that the treatments resulting in manufacturing removes the threat of importing pests to living trees--pests virtually certain to occur in raw logs as proposed. Why do you suppose Europe will only accept kiln-dried lumber or why New Zealand and Chile prohibit raw log importations?

G. Description of Available Treatment Methods

1. Inspection - already considered.
2. Debarking - a help but certainly does not eliminate pests nor is the debarking ever complete.
3. Fumigation - New Zealand (Cross, 1991) has already stated why this is not an effective way to treat logs. Incidentally the paper by Cross was published in 1991 not 1992 and has not appeared in any APHIS document until this DEIS, including both "findings of no-significant impact" on New Zealand and Chilean reports--published well after the Cross paper appeared. Schedule T-312 was judged inadequate by the US Forest Service Science Team--it was used for oak log fumigation and did not give adequate penetration. Your comments on temperature limitations of such fumigation are quite appropriate.
4. Heat treatment - the only really effective means of killing the pest organisms. This has been discussed in my previous two memos. Your recommendations are too low - well below the 71°C for 45 minutes found in the USFS Siberian protocol. It is clear that a little scientific research is required to validate some of these numbers over a broader array of woods and conditions. Far too much extrapolation from a few data points has been done. This recommendation for sound information was made over two years ago but virtually no effort has been made to remedy this void.
5. Pesticide and preservative treatments--generally for surface treatment only to prevent reinfestations. Your statement about only compounds not registered in the United States reminded me that a shipment of logs arrived here after having been sprayed with several insecticides and fungicides - but foreign trade names had been used making it difficult or impossible for any individual responsible to be certain the proper compounds had been used. Since these logs had not been properly heat treated before arrival (they were western red cedar), they were ordered to be destroyed by burning. The Oregon Department of Environmental Quality would not issue a permit to do so since burning would send these pesticides into the surrounding air. It was considered a health hazard.

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Comparison of the Environmental Consequences of the Alternatives
Your statement that there were no differences between the 6 alternatives when evaluating impacts on human health, forest resources, ozone depletion, global commons, and cultural resources is certainly wrong. Applications of pesticides on wood products or to suppress pests once established do constitute an impact on human health (e.g. burning pesticide treated logs releasing compounds into the air). Inadequate treatment of raw wood that allows the introduction of pest organisms will impact forest resources. You document that very clearly in this document.

How then can you claim that there are no impacts? Use of methyl bromide is so well documented as impacting the ozone layer that it is going to be eliminated and you feel you can state there will be no impact? The contribution of movement of wood materials around the world including whatever pest organisms might be contained in this wood is most certainly going to impact the global commons. Remember, too, that this movement of materials cuts both ways and the possibility of shipping pest organisms back to the donor countries is a very real one and a point not even considered. Finally, when you consider cultural resources, consider what will happen if major new forest pests are introduced into the Pacific Northwest, for example. The cultural resources are already severely stressed because of the impacted forest resources. Major efforts are being made to develop these resources into a sustainable resource--that does not include having to accommodate new threats to an already stressed resource. To label Alternative 4 as "overly" conservative is irresponsible. The purpose of this effort, by your own words, is to eliminate the importation of pest organisms--that is the only driver.

The statement that Alternative 2 might be somewhat protective of biodiversity because it "could" tend to encourage sustainable forestry is simply not true. The failure to demand heat treatment at the point of origin virtually assures the introduction of pest organisms that will surely impact the sustainability of our native forests.

As stated earlier, you have used the green dunnage as a diversion, offering so-called different alternatives based upon this commodity. The matter can be addressed simply, it is a serious environmental threat indeed, require that it be heat treated at point of origin. Not difficult technically but very effective.

Your final paragraph on page 41 is most distressing. You document the threats and risks of these commodities very carefully and then conclude the consequences are minimal! This is precisely what you did in both interim regulations on New Zealand and Chilean logs. (1) We know the logs present a problem with likely pest introduction, (2) we lack adequate technology to eliminate these pests from the logs but, (3) we conclude there is no significant impact in allowing these logs to come in. How can you reach such a conclusion?

IV. Affected Environment and Environmental Consequences
This is a well-balanced presentation and description of the areas of concern. It provides an excellent background for the entire DEIS. I leave the analysis of the details of methyl bromide position to those more familiar with these details. The evidence is clear, however, that the compound will be withdrawn from use in the near future. Doesn't it make sense to be prepared for its removal by conducting adequate research to validate other approaches, especially heat?

Endangered and Threatened Species

The last paragraph found in page 74 is simply not true; to say that only the No Action Alternative would result in a negative impact is false. It implies that all of the other alternatives would not allow any accidental entry of possible pest organisms. Your discussions under the different alternatives directly contradict such a statement. For example, Alternative 3 - the non-treatment of packing materials (green dunnage) was the most likely means of introduction of the pine shoot beetle! This section must be rewritten and a careful comparison made of the real risks involved.

dmw
enc
c: R. Berry

OREGON
STATE
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FINAL REPORT

SCIENTIFIC PANEL REVIEW OF JANUARY 10, 1992 PROPOSED TEST SHIPMENT PROTOCOL FOR IMPORTING SIBERIAN LARCH LOGS

Prepared at request of USDA Animal and
Plant Health Inspection Service

USDA Forest Service, FPM, AB-2S
P O Box 96090
Washington, DC 20090-6090
April 15, 1992

Healthy Forests
Make A World
Of Difference

Test Shipment Scientific Panel Meeting
Sacramento, California
March 12-13, 1992

INTRODUCTION

Several timber companies in the United States have expressed interest in importing unprocessed larch logs from Siberia and the Soviet Far East. Texas Timber and Exporting (TTE), with assistance from the USDA and State officials, drafted a test shipment protocol for importing Siberian larch (*Larix* spp.) logs (appendix A). In January of 1992, APHIS asked the Forest Service to assemble a Test Shipment Advisory Panel to evaluate the effectiveness of the TTE-proposed protocol. The Forest Service then contracted LABAT-ANDERSON Incorporated to assemble the Panel and facilitate a meeting to review the TTE-proposed Siberian larch test shipment protocol.

At the direction of the Forest Service, LABAT-ANDERSON secured agreements from the following scientists to be on the Panel: Dale Bergdahl, University of Vermont; Harold Burdsall, Forest Service; Robert Gilbertson, University of Arizona; Terry Highley, Forest Service; John D. Lattin, Oregon State University; Jeffery Morrell, Oregon State University; Thomas Payne, Virginia Tech.; William Wallner, Forest Service; and David Wood, University of California, Berkeley. The Test Shipment Advisory Panel meeting was held at the APHIS Western Regional Office in Sacramento, California on March 12 and 13, 1992. In addition to the Panel, the meeting was attended by James Fons, APHIS, and Dorthea Zadig, CDFA; and it was facilitated by LABAT-ANDERSON staff, Philip Sczerzenie, Thomas Brennan, and Sean Morris.

Dr. Sczerzenie called the meeting to order and asked members of the Panel to introduce themselves. After the introductions, Dr. Sczerzenie outlined the objective of the Test Shipment Advisory Panel: to evaluate the TTE-proposed Siberian larch log test shipment protocol and to advise whether it is safe for APHIS to make exceptions to the conclusions of its 1991 mitigation report for test shipments as proposed and, if not, whether any modifications would make it safe.

REVIEW OF SIBERIAN TIMBER PROJECT

Mr. Brennan then gave a brief summary of the history of the Siberian timber project. The U.S. government has no existing regulations for importing timber. The small amounts of timber that have been imported have been visually inspected at the port of entry, and the importer has been required to take mitigation measures to combat any pest found. However, this mitigation approach is not feasible for timber from Siberia because the volume of logs proposed for importation is too large.

Mr. Brennan then explained how, at the beginning of this project (fall 1990), APHIS asked the Forest Service to:

- Identify exotic organisms with the potential of becoming pests that may infect or infest unprocessed logs from Siberia and the Soviet Far East.

SIBERIAN TIMBER MITIGATION PROTOCOL

After consultation with USDA and State agency officials and based on the USDA APHIS report entitled "An Efficacy Review of Control Measures for Potential Pests of Imported Soviet Timber," Texas Timber and Exporting (TTE) proposed test shipments of Siberian larch logs to help establish the necessary logistical parameters and the market feasibility of long-term timber imports. This mitigation protocol was drafted by TTE to prescribe the import conditions for three shiploads of Siberian larch logs into Humboldt Bay, California. The following is a revision of the TTE mitigation protocol by the Test Shipment Advisory Panel to USDA. This revised protocol is specific to these test shipments.

A similar scientific advisory panel will review the effectiveness of this protocol under the auspices of USDA after completion of the test shipments, and the protocol will be revised where necessary. The mitigation protocol will be carried out by TTE and overseen by APHIS. In TTE's original proposal, methyl bromide fumigation was to be used as a mitigation method. However, data do not support the effectiveness of methyl bromide fumigation for treatment of raw logs to kill potential pest organisms at the center of the logs. Previous tests have shown that methyl bromide is effective against fungi only within 2 to 3 centimeters of the log surface.

The following procedures are prescribed:

1. Treatment activities at the port of origin:

    a. Debark logs as completely as possible. Bark reduces the uniformity and rate of heating of the logs, decreases the uniformity of prophylactic treatments, and provides a vehicle for collecting soil and potential pest organisms.

b. Heat treat to bring the temperature of the center of the largest diameter log to 160 °F (71.1 °C) for a minimum period of 75 minutes.

c. Immediately after heat treatment, submerge logs in a solution of 3-iodo-2-propynyl-butylcarbamate and didecyldimethyl ammonium chloride (DDAC/IPBC) and chlorpyrifos, or DDAC/IPBC and borax, at label rates, for a minimum of 30 seconds. Logs shall be stored out of direct ground contact after treatment. Logs shall be shipped within 30 days of treatment or shall be retreated with the prophylactic chemicals at 30-day intervals until shipped.

A USDA APHIS representative shall observe and review all treatments and log loading activities to ensure that protocol measures are properly carried out and, upon completion of these measures, shall so certify in writing.

2. Shipping of treated logs:

a. Shipping dates shall be scheduled to avoid vessel movements during the period of high-risk Asian gypsy moth (AGM) activities. This activity period occurs between July 1 and September 30. Vessels transporting logs in these test shipments shall not have been in AGM high-risk ports during the AGM egg-laying season and shall be apparently AGM free. APHIS shall identify AGM high-risk ports.

b. The vessels shall proceed with no intermediate stops directly to Humboldt Bay, California.

3. Treatment activities at the port of entry:

a. Upon discharge at Humboldt Bay, California, imported logs shall be isolated and processed separately from other groups of logs at Schmidbauer Lumber, Inc. (SLI), in Arcata, California. Imported logs shall not be stored or sawn at any other location. All imported logs shall be processed within 30 days of discharge or will be retreated with DDAC/IPBC and chlorpyrifos or DDAC/IPBC and borax at 30 day intervals. Above deck cargo shall be processed first.

b. All resulting finished lumber products shall be kiln dried at temperatures sufficient to eliminate deep wood pests (160 °F for 75 minutes). Sawn lumber shall be transported directly to the kiln. The time from sawing to the beginning of kiln treatment shall not exceed 24 hours. Lumber that cannot be kiln dried within 24 hours shall receive a prophylactic submersion treatment (DDAC/IPBC mixture).

c. Chips shall be transported to a processing plant within Humboldt County, California, in completely enclosed, APHIS-approved trucks. Chips not processed within 24 hours shall receive treatment with a dilute solution of metam-sodium.

d. Sawdust, bark, and other mill debris shall be processed on site at SLI. This debris shall be transported directly to a steam generator for disposal and shall not be stored. All residual products shall be consumed within 24 hours of sawing.

e. Appropriate regulatory officials shall monitor all aspects of log unloading, handling, and processing to ensure compliance with the protocol.

4. Demonstration of protocol efficacy:

Appropriate regulatory officials shall demonstrate the efficacy of the protocol with the following sampling design:

a. One set of 100 logs with bark intact, 32 feet or greater in length, shall be randomly selected from the logs proposed for test shipment.

b. The sampling of this set of 100 logs shall occur at the following times:

(1) Before treatment at the port of origin
(2) After prophylactic treatment at the port of origin
(3) After discharge at the port of entry
(4) After processing at the port of entry

c. The same 100 logs will be followed (resampled) throughout all sampling procedures. The following samples shall be taken from each of the 100 logs at those times:

- A total of ten slabs—6 in × 6 in (15.2 cm × 15.2 cm), 180° apart on the log, at five locations spaced equidistant along the entire length of the log,

- A total of fifteen drill shavings—one each from fifteen 2-inch (5.08-cm) diameter holes drilled 120° apart at five locations equidistant along the

entire length of the log; each hole shall be drilled to twice the depth of the sapwood,

- A total of fifteen increment cores (to the center of the log)—three at five locations, 120° apart, equidistant along the entire length of the log,

- A surface wash—from one 6 in × 6 in (15.2 cm × 15.2 cm) area randomly selected along the length of the log.

d. After each sampling, the sampling holes for drill and increment cores shall be plugged with tight-fitting dowels.

e. All samples shall be processed in an APHIS-approved laboratory facility to determine the efficacy of each treatment.

DEPARTMENT OF
ENTOMOLOGY

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January 5, 1994

MEMO TO: Chief Regulatory Analysis and Development
PPD, APHIS, USDA
Room 804, Federal Building
6505 Belcrest Road
Hyattsville MD 20782

FROM: John D. Lattin
Systematic Entomology Laboratory
Department of Entomology
Oregon State University
Cordley Hall 2046
Corvallis OR 97331-2907

SUBJECT: Comment on Docket No. 91-074-5, Importation of Monterey Pine Logs from Chile and Monterey Pine and Douglas-fir Logs from New Zealand

I am responding to Docket No. 91-074-5 regarding importation of raw logs from Chile and New Zealand. Although this item deals with only a part of the problem of raw log importation, it was encouraging to note that the agency is developing comprehensive regulations to control plant pest risks presented by the importation of logs, lumber, and other unmanufactured wood from anywhere in the world into the United States. Such regulations are long overdue. It was my impression that our efforts to draft mitigation protocol for logs completed at the March 1992 meeting in Sacramento, California, would have covered much of this if the needed research had been conducted. Almost two years have passed and nothing has been done.

While it is commendable to develop these interim regulations to have uniform regulations in place as each situation develops, it seems completely unreasonable to allow any raw logs or green lumber to enter the United States until proper procedures are available and in place before any unprocessed wood is allowed to enter.

The finding of no significant impact in both the December 1992 proposed Interim Rule and the October 1993 Interim Rule for Monterey Pine and Douglas-fir logs is absolutely incredible. The treatments proposed will not produce pest-free logs. In spite of your statements to the contrary, fumigation by methyl bromide is not effective on organisms 100 mm or deeper in the wood. The 1991 paper by Cross from New Zealand clearly shows this and the paper is not even referenced in either Environmental Assessment. It is ironic that this paper was produced by the scientists in the country from which the logs will come! The heat treatments recommended in the March 1992 meeting in Sacramento are simply brushed aside when in fact it is the only method we have to kill all organisms to the center of the logs. Surface fumigation simply will not do that.

Since some of the insects that live in the center of the logs are very small, it is unlikely that their exit holes will be detected in a shipment of 10,000 logs being inspected. Heat treatment after the arrival of the raw wood is akin to closing the barn door after the horses have escaped! Especially so since heat treatment of products may be as long as 60 days after arrival into the country. Heat treatment should be applied at the point of origin of the logs.

The statement that the requirements for importing Monterey Pine and Douglas-fir logs from New Zealand, if applied to importing Monterey pine logs from Chile, will be sufficient to prevent the introduction and dissemination of plant pests associated with these logs from Chile is **simply not true.** Debarking is never really complete and living larvae have been dug out of the wood under bark remnants in logs from New Zealand, fumigation will not penetrate far enough to kill organisms deeper than 100 mm, and no heat treatment is being applied before shipment, as recommended by the US. Forest Service Science Team - why then should it be assumed that there are no risks? Talk about leaps of logic! It is my understanding that there is now a proposal to bring in green lumber and then dry it here. Just why is it so difficult to require kiln dried lumber in the first place - as Europe does. And why is it that Chile and New Zealand will not allow importation of any green wood? They have lost most of their native forests. Until it is possible to bring in pest free logs, they should not be allowed in at all. The statements made that there are no risks is irresponsible and scientifically dishonest. Your unwillingness to prohibit raw wood products from being imported into the US until both regulations and mitigation protocols that are tested and proven effective is absolutely wrong. Just why should we be so willing to put our forests at risk when even a modest research effort combined with the requirement of drying at point of origin, would virtually eliminate the risks? These proposed regulations are poorly crafted and conceived and do a great disservice to those trying to develop sustainable forest resources in western United States. Lest those more concerned with southern pine forests feel they are protected from similar importations (wood chips, for example), they should know that the chips from Honduras come from a species of pine considered the same as long-leaf pine until only a few years ago. Pests of all types are likely to find long-leaf pine and its near relatives appropriate alternate hosts, and yet no one has even bothered to examine the chips at their point of origin for possible organisms or to examine those pines from which the chips originate.

The most distressing aspect of this entire exercise is the cavalier way in which our natural resources are treated by APHIS. The original risk report on the importation of raw logs from Siberia clearly outlined the biological hazards of such action. The report was prepared by a large number of well qualified specialists in diseases and insects. The risks were well documented and the result was a temporary ban on the importation of raw logs from the Soviet Far East until proper mitigation protocols had been identified and developed. A parallel publication by USDA/APHIS (USDA/APHIS, Misc. Publ. 1496) was published in 1991. This document reviewed several procedures available for treating wood. Some of these procedures were considered and deemed inadequate at the March, 1992, meeting of the US Forest Service Science Panel that met in Sacramento, California, to consider and draft mitigation protocol for raw log importations. Imagine our surprise when we were given a draft of that protocol to consider and review - written by one of the log importers! This draft was discarded and an entirely new document prepared. All aspects of the problem were considered and recommendations drafted - including areas where little or no information was available and where research was clearly needed.

MEMO TO: Chief Regulatory Analysis and Development
January 5, 1994
Page 3

Besides the usual reviews of the problems of visual inspections (how do you visually inspect a shipment of 10,000 logs? - you don't), emphasis was placed upon fumigation, especially by methyl bromide, and here again, the inadequacy of the APHIS recommendations regarding methyl bromide penetrations into green wood - the application cited being on oak to attempt to control wilt. Penetration was minimal. The 1991 publication by Cross, a New Zealand scientist, clearly outlined the inadequacy of methyl bromide fumigation on green logs since penetration was only achieved to a depth of 100 mm. He stated that it was not an acceptable effective treatment for their own logs. It is more that a little curious that this New Zealand publication has not even been mentioned in any of the APHIS publications even though they have known of its existence for several years. Similarly, the document produced at the Sacramento meeting has not been mentioned either.

Heat treatment of logs received considerable attention at the Sacramento meeting and again, the inadequacy of available information was clearly stated and recommendations made to obtain the necessary knowledge. Further, it was clearly stated that such heat treatments be applied at the point of origin of the logs - not at the port of arrival or later. While it was recognized that not all shippers could accomplish the proper heat treatments at present, no shipments were even considered until they could do so - not ship the logs and do it here. This is a procedure that aimply guarantees arrival of pests not removed by the inadequate regulationa here proposed, regulations that, in some miraculous fashion, were deemed to result in the "Finding Of No Significant Impact" - such a conclusion is absolutely ludicrous. One of the existing policies of APHIS, stated in the Office of Technology Asessment 1993 publication entitled "Harmful Non-Indigenous Species in the United States" is quoted on page 114 "... and its (APHIS) general operations under the presumption that unanalyzed imports will be admitted unless risks are proven..." is precisely the source of the problem here. The conclusions reached are at odds with the facts. It is time to change this out-moded concept.

dmw

February 20, 1991

COPY

Dr. Kathleen Johnson
Oregon Department of Agriculture
635 Capitol Street NE
Salem OR 97310-0110

Dear Dr. Johnson:

I am responding to your letter regarding the possible importation of wood chips from Central America. I have examined some of the literature on Caribbean pine (*Pinus caribaea* Morelet). It occurs on many of the Caribbean Islands (Bahama, Cuba, Haiti/Dominican Republic) and in Honduras, Guatemala, Belize, and Nicaragua. The species belongs to the subsection Australes, Section Pinaster, Loud. of the genus *Pinus*. This subsection contains a number of pine species found in eastern and southeastern United States, including longleaf pine (*P. palustris*), loblolly pine (*P. taeda*), pitch pine (*Pinus rigida*), slash pine (*P. elliottii*) besides *P. caribaea* (Critchfield & Little, 1966). Section Pinaster contains a number of other subsections including Ponderosae (containing, among other species, *P. ponderosa* and *P. jeffreyi*) and subsection Contortae (containing *P. contorta* and its subspecies and *P. banksiana*). The more recent treatment of the genus *Pinus* by Farjon (1984), places the subsection Contortae closest to subsection Australes.

The nominate subspecies of *Pinus contorta*, *P. contorta contorta*, is, of course, shore pine, the pine that occurs along the Pacific Coast from Mendicino County, California, north into British Columbia. It is the only pine found along the entire Oregon Coast, including Coos Bay and Gardiner. The other subspecies of *P. contorta* occur in the Sierra-Cascade mountains, in the Ochoco Mountains - east to the Rocky Mountains. The other subspecies is found in a very small, isolated spot along the coast of California in Mendicino County, California (*P. contorta bolanderi*). *Pinus contorta* extends northward into Canada and, in western Alberta, hybridizes with *Pinus banksiana* (jack pine), a species that extends all across southern Canada and much of northern United States. There, the species approaches the northern limits of *Pinus virginiana* that extends southward into southeastern United States where it approaches *Pinus clausa* (sand pine) in Florida and Alabama.

I mention these details because there is an almost unbroken connection between closely related species of pine that occur on the north Pacific Coast, across the northern region, to the Eastern Seaboard and south to Florida. There is a similarity in the insect fauna found on these species of pines. Thus, the potential exists for a pest species to be introduced into the west coast pine and spread northward, and eastward, and possibly southward. The latter situation should be particularly dangerous because of the pine species most closely related to *P. caribaea* found there, not to mention the shore pine/lodgepole pine, jack pine, Virginia pine and sand pine. The occurrence of ponderosa pine not too far away from the proposed introduction site raises other questions, since it, too, is close to the Caribbean pine.

Dr. Kathleen Johnson
February 20, 1991
Page 2

Typically, the pines have a rich insect fauna. While some insects found on them are quite host specific, others share more than one pine species. I have seen this in my own work on *Pinus contorta* (all subspecies), *P. ponderosa*, *P. banksiana*, *P. flexilis*, and *P. sylvestris*.

Since the proposal is to bring in chips rather than logs or finished lumber, there is a broader concern for anything that might be found in the piles of chips. Some of these species might be potential pests of other sorts (termites for example) that pupate or estivate in the piles of wood chips. This habitat also might provide pupation sites for defoliators of pine (sawflies, for example, that pupate in the litter, also the immature stages of various moths that pupate off the host. The coastal climate of Oregon is rather mild and not likely to present a serious climatic barrier, even though the materials would be coming from a warmer locale.

It seems most expedient to learn more about the organisms found in this material on site in Central America. That area has an extremely rich insect fauna (and other groups of organisms as well, I assume), some of which might be potential pests. Many taxa associated with pines extend throughout the range of this genus of trees, including Central America, where, in the New World, the genus reaches its southern most limits.

I have stated previously that a thorough search of the appropriate literature should be done to determine the extent of present knowledge before not after an introduction is made. Certainly, any risk assessment should be based upon the very best and complete information available. It might be instructive to include in such a review, the results of the USDA/APHIS surveys of potential pests in and around the major ports of the United States that was conducted a few years ago. Finally, the native flora in the region into which the proposed introduction might occur, should be assessed for potential host plants, with special attention to the forest species.

Sincerely,

John D. Lattin
Professor of Entomology

dmw
c: R. E. Berry
Michael J. Shannon

proaches to NIS risks generally (26), as have the research and testing of new biological control agents (ch. 5). The standard paradigm for analyzing risks of these specialized releases relies much more heavily on experimentation, including controlled, small-scale trial releases, than is normally done for other proposed NIS releases.

Recent technological advances have made some experimental releases safer. For certain species, scientists can ensure that released NIS are infertile through sterilization, birth control, or other manipulations such that no more than one generation will survive (ch. 5). Fisheries biologists have used these techniques to assess new introductions of fish and shellfish (51). Some advocate the use of these reproductive control techniques as a precondition for all experimental releases (67).

Experimentation can provide data critical for linking mathematical models to ecosystem behavior, especially for generalized theories of ecosystem response to stress (39). Experimentation also informs the optimal design of monitoring systems and the apportionment of containment or control efforts according to the risks involved. In one facility in England, experiments on invasions are conducted in a large laboratory with 16 connecting microcosm chambers (38). It allows the assembly of a wide variety of plant and animal communities in computer-controlled environments. Still, organisms can behave quite differently in the real world than they do in experimental settings because of untested, often unanticipated, influences. The possibility of chaos in ecological systems suggests that making accurate predictions may be more complex than anticipated (19,60) and not a matter necessarily solved by accumulating more data for better models.

Experimental analyses for NIS (other than GEOs and biological control agents) are not consistently done or required by Federal or State laws. Despite difficulties in interpreting results from small-scale trial releases, experts have called for more use of these and other experimental approaches as providing better predictions than the largely anecdotal "paper" studies that dominate now (40). An experimental approach would require more personnel, funding, and time.

RISK ANALYSIS BY FEDERAL AGENCIES

Finding:

Within the Animal and Plant Health Inspection Service (APHIS) of the U.S. Department of Agriculture (USDA), there is great variation as far as the stringency of its risk analysis procedures for different types of NIS importation. Internal proposals to improve and standardize risk analysis procedures have not been broadly implemented. Two existing policies hamper the agency's effectiveness at keeping new, harmful NIS from entering the country: its lack of explicit focus on risks to non-agricultural areas, and its general operation under the presumption that unanalyzed imports will be admitted unless risks are proven. Still, APHIS is more analytical than FWS. FWS has implemented very little scientific risk analysis for potentially harmful fish and wildlife.

The primary Federal responsibility for regulating NIS lies with USDA's APHIS and the Department of Interior's FWS (see ch. 6). APHIS can regulate both private and governmental actions that pose risks of introducing agricultural and forestry pests, including weeds. FWS is responsible for "injurious" fish and wildlife under the Lacey Act, which, as applied, primarily means species that threaten interests outside agriculture.

Animal and Plant Health Inspection Service—Much of current APHIS risk analysis consists of preparing a "decision sheet," which often includes only a paragraph or two on the biology of a prospective plant pest (80). Great variation exists within APHIS as far as the stringency of analysis (26). Comprehensive assessments of probabilities and risks are rarely undertaken. The agency is revising a number of its regulatory

This "presumption of enterability" is not mandated by the Plant Pest Act[6] or by other controlling legislation; it is apparently a policy choice to favor unburdened trade. That choice may itself be the result of weighing the overall risks and benefits of a more restrictive presumption of exclusion. However, OTA has not discovered any evident national weighing of these risks and benefits. The weighing process appears to occur in difficult new cases, one at a time, at high levels of the Department of Agriculture.

> [I]n controversial trade matters, top management outside of APHIS may "weigh" the biological position against the economic or other positions, and the short-term decision made by non-biologists may in some instances prevail regardless of the probability of long-term adverse consequences. (25)

The presumption of enterability has real consequences. In the recently proposed importation of Siberian timber to West Coast sawmills (box 4-B), for example, several critics pointed out that APHIS's starting assumption was that the importation would occur. The agency initially stressed the rights of the importers to proceed rather than the biological issues (7). Indeed, it allowed them to bring in a small shipment of logs, without a formal pest risk analysis or environmental assessment, that was found later to carry pests. It took pressure from academic scientists and members of Congress to stop APHIS from allowing further shipments without a comprehensive risk analysis (14).

For a proposed importation of pine (*Pinus* spp.) wood chips from Honduras into Oregon, APHIS did not require a formal assessment of the potential risk, despite serious warnings from an Oregon State University entomologist (37). The agency would not delay the imports unless risk was first proven; expert opinion was insufficient to overcome the presumption of enterability (66).

The agency's willingness to accept unanalyzed risks is compounded by the low level of effort USDA devotes to researching where risky species are likely to come from and to proactively regulate so as to prevent problems before they arise. The relatively short list of foreign weeds prohibited under the Federal Noxious Weed Act represents one example (ch. 6) (41). Another is the recent Asian gypsy moth infestation in Pacific Northwest ports, which necessitated a $14 million to $20 million emergency eradication program (box 4-B). The moth arrived via cargo ships on which eggs had been laid while in Far East ports. Ships are one of the most obvious pathways for new pest introductions because of their size and frequency of arrival. Yet APHIS had not proactively analyzed the Asian gypsy moth risks nor taken steps to prevent the infestations. In the words of a former California Department of Agriculture official discussing overall U.S. quarantine policy, "ignorance is viewed as a relatively low-level risk compared to the benefits of open trade and other societal needs" (62).

For the items discussed above—unprocessed wood, packing materials, containers from high risk areas, etc.—APHIS lacks specific regulations. The agency assumes the items are suitable for import unless agricultural port inspectors detect a problem. APHIS treats all plants in a similar manner, including nursery stock, seeds, and bulbs, under regulations known as Quarantine 37. Such foreign plants are enterable with a permit if they are *not* listed in these regulations, that is, on the "dirty" list of plants known to carry important pests or diseases in their countries of origin. Quarantine 56, which covers imported fruits and vegetables for consumption, is an exception to APHIS' overall assumption of enterability (25). Under this quarantine, pest risk assessments have judged listed articles "clean" and, thus, able to be imported with a permit.

[6] Federal Plant Pest Act (1957), as amended (7 U.S.C.A. 147a *et seq.*)

Box 4-B—Siberian Timber Imports: A Potentially High-Risk Pathway

Siberia has almost half of the world's softwood timber supply. Since the late 1980s a few U.S. timber brokers and lumber companies, short on domestic supplies, have been negotiating for the importation of raw logs from Far East ports to West Coast sawmills. This may create a pathway for non-indigenous forest pests that are adapted to many North American climate zones and tree types. In the past 100 years raw wood or nursery stock imports have provided entry for a number of devastating pathogens, such as chestnut blight (*Cryphonectria parasitica*), Dutch elm disease (*Ceratocystis ulmi*), and white pine blister rust (*Cronartium ribicola*).

In early 1990, the private importers voluntarily notified APHIS and the California Department of Agriculture that they would be shipping two containers of logs representing four Siberian tree species into the northern California port of Eureka. The logs were fumigated, handled, sawn, and disposed of pursuant to agreed upon guidelines. The California officials had sought more time to develop the guidelines before shipment, but were unable to obtain a voluntary delay and lacked regulatory authority to require a delay. According to the program supervisor of the Pest Exclusion Branch, APHIS's California approach to the State's biological concerns was to stress the importers' rights to proceed.

Dead insects were recovered off three of the tree species; the fourth carried a nematode. The agencies concluded that no further shipments should come in until personnel could identify the species and do a pest risk analysis. APHIS arranged a voluntary embargo with the importers. Two of the species were later identified as potentially harmful new pests.

Participation by APHIS in the early phases (April through September 1990) was criticized as "chaotic" by the California official in charge. The agency's Preliminary Pest Risk Analysis was completed in September; it was generally regarded as inadequate, failing to list many *known* Siberian pests and lacking investigation into the many unresearched potential pest species. Worried California and Oregon officials sought independent scientific advice. Several State university professors warned of potentially disastrous consequences from the organisms that were likely to be introduced, even if the logs were fumigated.

Communication among these academics and the State officials in fall 1990 eventually led to congressional pressure in the form of a letter from three members of the Oregon delegation to the Secretary of Agriculture inquiring about APHIS's handling of the matter and requesting a delay pending resolution of the pest issues. At the same time, the importers were negotiating with APHIS to allow large-scale shipments to mills in Humboldt Bay, California. However, "to honor the congressional request," the agency suspended the discussions on December 13. APHIS announced it had imposed a "temporary prohibition" on future imports. Without the congressional pressure, it appears the shipments would have gone ahead without comprehensive analysis.

A joint U.S. Forest Service/APHIS Task Force was convened and worked for almost a year on a detailed risk assessment focusing on larch (*Larix* spp.) from Siberia. The project cost of approximately $500,000 was paid out of a Forest Service contingency fund. APHIS lacked a flexible fund to pay for the unanticipated, unbudgeted work.

The assessment found serious risks posed by several pests. A worst-case scenario examined the economic impacts should they successfully invade Northwest forests. It produced astoundingly high figures for the cumulative potential losses from the Asian gypsy moth (*Lymantria dispar*) and the nun moth (*Lymantria monacha*) between 1990 and 2040—in the range of *$35 billion* to *$58 billion* (net present value in 1991 dollars). Still, the assessment did not resolve all the issues about mitigating the risks. Ultimately, APHIS put the burden back on the importers to propose new pest treatment methods and protocols with "evidence of complete effectiveness". Some experts said the logs would need sawing and kiln-drying to exterminate all risky species, which would probably be prohibitively expensive. The assessment concluded: "If technical efficacy issues can be resolved, APHIS will work with the timber industry to develop operationally feasible import procedures." To date the industry has identified no feasible procedures that APHIS has deemed completely effective.

(continued on next page)

Box 4-B—Continued

A recent discovery may render the timber import risk mitigation efforts moot, at least for the Asian gypsy moth. While APHIS and the Forest Service were looking at the chances it would arrive on logs, the Asian gypsy moth arrived in the Pacific Northwest clinging to grain ships. The risk of this pathway had been overlooked. A $14 million to $20 million program of broadcast biopesticide spraying, trapping, and monitoring has been implemented by Federal and State officials to stop what the Deputy Director of the Washington Department of Agriculture said "has the potential to be the most serious exotic insect ever to enter the U.S." An information program was also initiated to keep shippers that trade in high-risk Far Eastern ports from inadvertently transporting more moths. While officials have found no more Asian gypsy moths in the Pacific Northwest to date, their ultimate success in eradicating this pest remains uncertain.

SOURCES: Associated Press, "Forest Bugaboo—Alarm Over Discovery of Asian Gypsy Moths," *Seattle Times/Post Intelligencer*, Nov. 24, 1991, p. B-8; A. Clark, Program Supervisor, Pest Exclusion Branch, California Department of Agriculture, Sacramento, CA, personal communication to P. Jenkins, Office of Technology Assessment, Feb. 14, 1991; P. DeFazio, U.S. House of Representatives et al., letter to C.K. Yeutter, Secretary, U.S. Department of Agriculture, Washington, DC, Dec. 5, 1990; J.D. Lattin, Professor of Entomology, Oregon State University, personal communication to P. Jenkins, Office of Technology Assessment, Jan. 31, 1991; J.D. Lattin, Professor of Entomology, Oregon State University, memorandum to B. Wright, Administrator, Plant Division, Oregon Department of Agriculture, Salem, OR, Nov. 1, 1990; R. Morris, Division Resources Manager, Louisiana-Pacific Corp., Samoa, CA, internal memorandum to B. Phillips, Dec. 19, 1990; M. Shannon, Chief Operating Officer for Planning and Design, Animal and Plant Health Inspection Service, U.S. Department of Agriculture, Hyattsville, MD, personal communications to P. Jenkins, Office of Technology Assessment, Feb. 5, 1991 and Mar. 2, 1992; U.S. Department of Agriculture, Animal and Plant Health Inspection Service, Hyattsville, MD, "USDA Places Temporary Prohibition on Entry of Siberian Logs Because of Pests," press release, Dec. 20, 1990; U.S. Department of Agriculture, "An Efficacy Review of Control Measures for Potential Pests of Imported Soviet Timber," Miscellaneous Publication No. 1496 (Hyattsville, MD: Animal and Plant Health Inspection Service, September 1991); U.S. Department of Agriculture, Forest Service, "Pest Risk Assessment of the Importation of Larch From Siberia and the Soviet Far East," Miscellaneous Publication No. 1495 (Washington, DC, September 1991); D.L. Wood, Professor of Entomology, and F.W. Cobb, Jr., Professor of Plant Pathology, Univ. of California, Berkeley, letter to Dean Cromwell, California State Board of Forestry et al., Sacramento, CA, Dec. 11, 1990.

Fish and Wildlife Service—FWS does far less than APHIS in analyzing risks from injurious fish and wildlife (26). The current Lacey Act dirty list is short (prohibiting 2 families, 13 genera, and 6 species), and FWS uses no checklist or other standardized procedure to analyze risks from other imported species. While APHIS inspects incoming agricultural livestock for diseases, FWS has no procedure for refusing entry to the remaining unlisted and non-agricultural fish and wildlife.

Service officials acknowledge the need for better evaluation of risks from unlisted NIS: "it would be desirable to improve internal Service procedures for modifying the list of injurious wildlife . . . by establishing listing criteria and procedures" (54). The Intentional Introductions Policy Review conducted by the Federal interagency Aquatic Nuisance Species Task Force represents one attempt to do so for aquatic species (see ch. 6) (17). Much of the responsibility in this area rests with State agencies, many of which lack the necessary regulatory authority and/or resources to adequately address these risks (ch. 7).

ANALYSIS OF CONTROL OR ERADICATION EFFORTS

Although risk analysis primarily focuses on preventing harmful invasions, it also assists in setting priorities for control of established, unwanted NIS. In agricultural applications this tactical decisionmaking is part of Integrated Pest Management programs (ch. 5). Farmers use a variety of systems based on factors like pest population size (determined by sampling); weather; and crop stage for efficient allocation of pesticides, cultivation practices, and other control measures. Some systems have been developed for area-wide agriculture and forestry control projects. These systems, in large part computerized, guide responses to important pests such as the European gypsy moth (*Lymantria dispar*).

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The environmental hazards of importing raw logs into Mexico

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World trade increases every year. Part of this trade activity includes a variety of wood products. While manufactured wood products have been traded for many years, the import and export of large quantities of green logs is a relatively recent activity.

Four thousand million hectares of the world are covered by forests, 2050 million hectares in the temperate regions, 1200 million hectares in the tropical regions and 300 million hectares in the arid regions. Approximately 1000 million additional hectares, while classified as forests, are mainly composed of shrubs and other woody vegetation (Unasylva, 1985).

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According to the 1986 yearbook of Wood Products Statistics, forest products trade included 154 countries of which 115 were involved in log import or export or both in Africa, North Central and South America, Asia, Europe and Oceania. About 100 million cubic meters are traded internationally as chips or logs, especially from tropical logs (Ewing and Chalk, 1988).

The environmental hazards of importing raw logs.

There is great world-wide trade activity in wood products, including the import and export of raw logs. The logs being moved may represent species native to the export country (i.e. Siberia) or they may represent exotic species grown in plantations in the exporting countries (e.g. *Pinus radiata* and *Pseudotsuga mansiezii* in New Zealand, and *Pinus radiata* in Chile). While most North American countries have imported few raw logs to date, changing forest resource bases have increased interest in importing raw logs from the countries mentioned above. Wood chips too are brought into many different countries from a number of sources. The biological risks of chip imports have hardly been examined, but the risks of raw logs importation have been discussed in several recent publications (Anonymous, 1991, 1992 and 1993). At first, it seemed that importing raw logs for further value-added activities was a harmless and beneficial

effort. Countries with limited forest resources are able to obtain logs for modification into a variety of finished products. However, the technology is not yet available to assure that these logs can be delivered pest-free. For this reason, the importation of raw logs poses serious biological threats to the receiving country - not only forest pests, but also agricultural pests that may utilize the logs for passive dispersal across the globe. A careful review of the three U.S. Department of Agriculture documents mentioned above will disclose many potentially dangerous organisms capable of being transported on raw logs (see also Ohmart, 1982; Goheen, 1992; Goheen and Tkacz, 1993).

The hazard consists of the likelihood of known or potential pest species being transported on or in the logs. Theoretically, the logs could be treated to eliminate all pests - insects and diseases alive. Presently, the technology is not available for mass treatment of logs and keeping them pest-free until they are modified by milling in the importing country.

Debarking has been suggested as a sanitation method but it merely reduces the number of organisms, it does not eliminate them completely. Surface spray has been suggested as well. These too are effective - up to a point but do not eliminate organisms living in the wood. Further, there may be associated health hazards in working with treated logs.

Fumigation of logs, especially with methyl bromide, has been put forward as an effective treatment, but work done in New Zealand (Cross, 1991) indicated that Methyl Bromide would only penetrate about 100 mm in green wood - in other words, organisms living deep in the wood would escape completely (e.g. ambrosia beetles, normal and flat headed borers). Heat treatment, properly conducted at the right temperatures and of proper duration, offers perhaps the best solution, but much remains to be learned about the thermal death points of many organisms. Further, there is considerable resistance to this treatment because it adds cost to the export process.

Several techniques have been suggested to obtain pest-free logs; however, some species are able to avoid these treatments and establish themselves in new regions resulting in almost invisible to very dramatic changes in the natural habitats. The risk of unintentional or accidental importation of unwanted pests or diseases should be recognized and balanced against the possible benefits of such importation. The benefits are likely to be short-term and the damage to natural resources long-term. One has only to look the northeastern forests of The United States and Canada to see the consequences of only a few introduced diseases and insects. These forests have been changed forever.

Mexico possesses enormous natural diversity of its biota. Because of this diversity, the country is especially vulnerable to damage from non-indigenous species of a wide variety. The great north/south distances, combined with diverse topography, produces a landscape of enormous complexity. East/west transects are equally diverse , characteristics that places Mexico among the five most diverse areas of the world. Whereas countries of higher latitudes are less vulnerable to tropical and subtropical organisms, Mexico should be more susceptible given its diversity. Pests have demonstrated their ability to move from the northern to the southern hemisphere or the reverse so the equator offers only slight protection from such movements.

It would seen prudent for Mexico to examine the potential risks and benefits before logs are brought into the country. Risk assessments based upon careful biogeographical analysis of the exporting country and the likely threats that might result to the native Mexican flora and fauna. Risk assessments are not only needed but should be mandatory before any log imports are brought into the country. Careful analysis given by experts will play an important role in evaluating the potential risks of importing raw logs from any part of the world. Further, it would seem especially prudent to refrain from bringing in raw wood, especially raw logs, until the export countries have the technology in

place to assure pest-free logs. Improved knowledge of the biological diversity of the biota of Mexico will allow better decisions to be made regarding the ultimate cultural, scientific, and economic value as well as risks.

It may be impossible to avoid importation of forest products into the country over the short term, but correct decisions about imports will be an important step for the protection of our valuable natural resources. The existing natural resources of Mexico are simply too valuable to put them at risk by large-scale importations of raw wood products. The inadequacy of the present mitigation procedures must be corrected before allowing the importation of such materials. Expecting pests to be eliminated after accidental introduction and establishment is unrealistic, there are too many examples of unsuccessful attempts to control or eradicate a pest once it has become established.

While the emphasis of this paper has been upon the consequences of raw logs importation on forest resources, it must be remembered that these logs may provide passive transport to potential agricultural pests as well. Any review of environmental hazards should include a careful examination of crops and associated pests in the countries proposing log export. As with the natural resources, the agriculture of Mexico is even more important and to place it

under unnecessary risk until proper mitigations procedures are available seems inappropriate.

We offer the following suggestions for consideration of the possible problems associated with the importation of raw wood materials into Mexico.

1) Careful analysis of treatments applied to raw wood before is exported as well as the potential for introduction of pests common in the area of origin.

2) Require the best treatment known against any potential organisms attached to raw wood.

3) Require a list of species associated with trees species to be exported as well as the agricultural pest species present in the area of origin.

4) Conduct extensive training of personal in charge of sanitary inspection of wood imports to facilitate early detection.

5) Consider ports of entrance before any shipment is brought into the country and select the port that is least favorable for establishment of non-indigenous species.

6) Establish the process of non acceptance of any shipment with a detected potential problem.

Literature cited

Anonymous. 1985. Forestry beyond 2000. *Unasylva*. 37:7-16.

Anonymous. 1991. Pest risk assessment of the importation of larch from Siberia and The Soviet Far East. U.S. Department of Agriculture. Forest Service. Miscellaneous Pub. No. 1495.

Anonymous. 1992. Pest risk assessment of the importation of *Pinus radiata* and Douglas-fir logs from New Zealand. U.S. Department of Agriculture. Forest Service. Miscellaneous Pub. No. 1508.

Anonymous 1993. Pest risk assessment of the importation of *Pinus radiata*, *Nothofagus dombeyi*, and *Laurelia phillipiana* logs from Chile. U.S. Department of Agriculture. Forest Service. Miscellaneous Pub. No. 1517.

Cross, D.J. 1991. Penetration of Methyl bromide into *Pinus radiata* wood and its significance for exports quarantine. *New Zealand J. For. Sci.* 21(2/3):235-245.

Ewing, A.J., and R. Chalk. The forest industries sector. An operational strategy for developing countries. World Bank Tech. Industry and Energy Series. Washington, D.C. 83 pp.

Goheen, D. 1993. Importing logs: a risky business. *Plant Disease* 77(9):852.

Goheen, D.J. and B.M. Tkacz. 1993. Pest risks associated with importing unprocessed Russian larch logs to the United States. *Wes. J. App. For.* 8(3):77-86.

Ohmart, C.P. 1982. Insects associated with *Pinus radiata* throughout the world: an annotated bibliography. Commonwealth Scientific and Industrial Research Organization. Danisen of Forest Research, Deniscoral Report No. 9. Camberra, Australia.

STATEMENT OF FIELDS W. COBB, JR

The potential for introductions of damaging forest pests into North America through importation of inadequately treated logs and other wood products of our forests by exotic pests can have greater potential impacts upon the economy and upon whole forest ecosystems than almost any other conceivable disruption.

To illustrate the point, I'd like to go back to the turn of the century. About 1900, two disease causing pests were introduced into the United States on plant material. They were the chestnut blight fungus and white pine blister rust.

In 1900 the American chestnut was the most majestic tree in the magnificent eastern hardwood forests that covered approximately 200 million acres of land. The chestnut represented 25-30 percent of the composition of those forests; in other words, it was the dominant organism in the ecosystem. Aesthetically the tree was outstanding. As a provider of food for wildlife, it was unsurpassed, and many species depended upon it directly or indirectly, including even the bald eagle. As a provider of quality wood for human use, it was excellent. By 1950, the blight fungus had virtually eliminated American chestnut from the American scene. Some of us may have been fortunate enough to see those forests dominated by chestnuts, but our children and their children and their children's children will probably never see them again.

Economically, the losses have already reached into the trillions of dollars, and we are far from having completed our payments to the piper. Primarily, oaks of lesser quality have occupied the niche left by the chestnut. Some of us believe that the increased population of oaks has led to the emergence of a major, deadly disease of oak known as oak wilt. We did not know of the existence of oak wilt until the late 1930's, although the fungus that causes the disease is probably native. Also, the dramatic increase in oaks has probably made the

impact of the introduced Gypsy moth far worse than it would have been if the chestnut had remained as a major forest component.

Meanwhile, white pine blister rust was spreading through the East, Lake States, Northwest and California, killing many and sometimes most of the beautiful 5-needle pines. Especially hard hit were the eastern white pine, western white pine and sugar pine. Commercially, these are the preferred species for many uses. They are also majestic trees with excellent form, and beautiful foliage and cones. The largest pine in the world is sugar pine in California and Oregon, the oldest tree is a bristlecone pine, and a major source of food for the endangered grizzly bear is the mast seeds from whitebark pine. All are potentially threatened by the rust. Where I live now in northern Idaho, about 40 percent of the forest was composed of western white pine at the turn of the century. It is now down to 5 percent due mainly to mortality caused by the rust and to management decisions to favor other species because of rust. As a result, white pine has been replaced by species such as grand fir, subalpine fir and Douglas-fir that are much more susceptible to root diseases. For that reason, the northern Rocky Mountains are often called the root disease capital of the World. The same situation is developing in California where sugar pine is being removed from many forests. The losses, both economic and ecological, have been enormous though not yet on the scale of those caused by chestnut blight.

Largely as a result of the introduction of these two disease-causing fungi, the forerunner of our current APHIS was erected. The mission of APHIS has always been the protection of our natural and agricultural resources against the invasion of exotic pests. This is to be done without unnecessarily restricting international commerce. A major key in the controversy surrounding this issue seems to be the interpretation of the word, unnecessarily.

There are times when the potential losses are so high that we must restrict commerce to provide the protection that we need. This is clearly one such case. I do not understand why APHIS is so reluctant to acknowledge it.

The regulations that APHIS has proposed as their preferred alternative in the recently distributed Draft EIS are clearly inadequate. I will now address some of the inadequacies and possible reasons for them.

First, the risk assessment methods are designed primarily for agricultural crop pests and are not appropriate for assessing risks to forest vegetation. The methods rely on access to nearly complete knowledge of both the pests (their host range, environmental requirements, life cycles, etc.) and of the hosts. In almost all cases with forest pests, our knowledge is deficient; in most cases, it could be described as sketchy; and in many cases, it can probably be described as non-existent. To illustrate the last point, I will use three examples:

(1) Prior to its introduction into the U.S., the chestnut blight fungus had not been discovered anywhere on the planet. It took more than a decade of detective work after the introduction before discovering its origin in Asia.

(2) The Port Orford Cedar root disease fungus that currently presents a threat to the species almost assuredly was introduced. It was first discovered in a tree nursery near Seattle in 1923, but even today more than 60 years later we still do not know from whence it came.

(3) The dogwood anthracnose fungus that is currently devastating to the dogwoods in the East and in the Northwest is also very likely an introduced pest. Yet, we have no idea where it originated.

The APHIS assessment demands that we identify potentially damaging foreign pests. We can identify many, but as in the past it is the unknown or unidentified ones that may be the real threats.

As for the known disease-causing agents, we are just beginning to realize how little we really know about them. As an example, until recently, we believed that one of the world's most devastating root diseases was caused by a single fungus species. With new technology, including DNA analysis, we now know that there are at least 10-11 different species throughout the world and that some of them are still confined to relatively small geographic areas.

In agriculture, we have a much simplified system with respect to both the plants and the environment. The plants often are almost identical genetically, the crops are usually monocultures and the environment is as uniform and simple as cultivation will make it. The natural forest is a diverse ecosystem which tends to suppress pest populations. Disease-causing agents of forest trees may be very obscure in their native habitat, compared to those in agricultural systems. Thus, to overlook a potentially dangerous pest in its native habitat is rather easy. It is inappropriate and unwise to base assessments only on the known. Past history should have taught us a better lesson.

Second, the means by which we can control or manage introduced pests in the forest are much more limited than those in agricultural systems. The values of the forest resources at risk are enormous, probably in the many trillions of dollars even without considering the multiple values and uses. Yet, the economics of growing long-lived trees are such that we can rarely afford to spray them every year to protect against pests, even if it is environmentally sound (Rarely is it.). Genetic resistance, a common approach in agriculture

to combat both endemic and introduced disease agents, either takes decades to develop or is not available to the forest pest manager at all. Once we have made the mistake and introduced a forest pest, there may be absolutely nothing that we can do to sufficiently reduce the impacts upon the forest ecosystems or upon our economy. The prospects are frightening. We must take whatever steps that we can to assure that pest introductions do not occur in the first place. APHIS must understand the implications and address them with great intelligence and the best means possible.

The next issue is that of the regulations proposed by APHIS. I firmly believe that the alternative preferred in their EIS is totally inadequate at least with respect to disease-causing agents (fungi, bacteria, nematodes and possible viruses) that can be deep within logs and large dimension lumber. The so-called preferred alternative seems to have been designed more to minimize restrictions on commerce than to protect North American forest resources. Since this is almost the antithesis of the mission of APHIS, I do not comprehend such action. Is it possibly due to political pressures from Congress itself?

I will briefly address below some of the criticisms that I have:

(1) Inspections simply cannot "ensure that plant pests are not present" in logs, large timbers or even in sawn boards.

(2) Sampling, to be effective in detection of microscopic disease agents in the wood, needs to be relatively intensive, especially if the goal is to exclude potentially devastating pests. Such sampling is labor intensive, so the proposed level of sampling is dangerously low.

(3) Once the samples are taken, they must go to a laboratory where they are subjected to a variety of tests. If an organism is isolated, often it has to be

sent to other experts (sometimes in other countries) for identification. Recently, we have learned that we cannot rely on morphology (structural appearance) to correctly identify the organism in many cases. Sometimes we must use the new DNA technology. All of these steps could easily take six months. Are the logs, etc. held until APHIS has the results, or are the logs released for manufacture? In my experience, they are released.

(4) The primary treatment that APHIS is relying upon is fumigation with methyl bromide. There are several problems with methyl bromide: it is dangerous to use; the EPA plans to ban it entirely within 4-6 years, a fact apparently disregarded by APHIS; its use is adversely affected by cool temperatures and moisture in green logs; confirmation of proper treatment is difficult; and the recommended treatment schedule does not insure penetration to the center of logs where some of the disease agents can reside.

(5) The heat treatment, 133°F for 30 minutes, proposed by APHIS will not kill all disease agents in a log. The people with expertise in this area have recommended to APHIS a treatment that requires about 153°F at the center of the logs for 60-75 minutes. I had thought that APHIS had accepted the latter treatment. I do not know why the changes unless APHIS has decided that nematodes are the target, and the fungi are not.

(6) Lumber, especially larger dimension timbers, could easily harbor disease agents. To exclude it from the fumigation requirements as APHIS has proposed could be very unwise.

(7) APHIS proposes very relaxed restrictions on tropical hardwoods "because the great majority of plant pests associated with them cannot successfully become established in most areas of the United States due to climatic conditions". This statement may or may not apply to insects, but it does not apply to fungi. Take for example the fungus that causes late blight of potato which devastated the potatoes of Ireland in the mid 1800s, created a terrible famine, and sent many Irish to our shores. The fungus is native to subtropical Mexico but has done very well in climates as cool as that of Ireland. Possibly, APHIS is so under-funded that it could not assign a plant pathologist to assist with these regulations. My recommendation is to completely reassess the risks of tropical and of temperate zone hardwoods before deciding upon relaxed restrictions. The reassessment should place a strong emphasis on disease agents such as fungi, and it should not rely on the lack of reports of these organisms from the regions of origin. Very few comprehensive studies have been done in those regions.

(8) Because we simply do not have the knowledge to accurately assess the risks of most known forest pests, to predict the source of potentially devastating unknown forest pests, and to properly evaluate many of the suggested mitigation treatments, I believe that we should develop or formulate a universal treatment that will be effective against all pests in logs and unmanufactured wood products from any foreign source, Canada and northern Mexico excepted. As we develop the knowledge necessary to make sound assessments, we can become less restrictive if such a change is in order.

I have copies of resolutions or letters from the officers of the American Phytopathological Society, the Society of Nematologists, the Entomological Society of America, and the North American Forest Insect Work Conference, a collective group of more than 10,000 individuals with solid expertise in the general field. These resolutions and letters all address the crucial nature of these log importation issues.

We are all asking you to do whatever is necessary to protect the forest resources of this nation. The threat to forest health, to the biodiversity of forest ecosystems, and to the economy of all of our communities, both large and small, is astronomical.

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Protecting Oregon's lands, waters and natural resources

Comments of Dr. Joy Belsky,
Staff Ecologist, Oregon Natural Resources Council,
on APHIS's Proposed Rules on the
Importation of Logs, Lumber, and Other Unmanufactured Wood Articles

Congressional Committee on Agriculture
Subcommittee on Specialty Crops and Natural Resources
29 June 1994

For over twenty years, thousands of Americans have dedicated their lives to trying to preserve the remaining 5% of the ancient forests of the United States. Recently, this effort has resulted in a new forest plan for the Pacific Northwest and recognition that our forests must be managed as ecosystems. But as this process enters its final stages, something new is occurring that could undermine this work and potentially destroy our most valuable forest lands.

That something new is the importation into the United States of whole logs and unprocessed wood articles from temperate nations around the world. Earlier, we were fighting to save individual forest stands, watersheds, and unroaded wilderness. Now, we are opposing the importation of unprocessed wood articles in order to save entire tree species, including the enormously valuable Douglas fir, Hemlock, and Longleaf pine, and to save entire forest ecosystems, such as the Western Conifer Forests of Oregon, Washington, and California, the Northern Conifer/Hardwood Forests of Maine, New Hampshire, New York, Michigan, and Wisconsin, and the Southern Pine Forests of South Carolina, Georgia, and Alabama. We are fighting to save these species and forests from virulent, exotic insect pests and disease pathogens that will most certainly be introduced into the United States on imported logs and unprocessed wood articles. These pests, coming from nations having similar climates and utilizing similar forest species, will not only be able to survive in the temperate climates of the U.S., but they will

be able to spread rapidly throughout our forested regions in the absence of co-evolved predators and resistant tree species.

This is not an exaggeration. History has shown that diseases and insect pests have been repeatedly introduced into the U.S. with devastating results. Data from government documents show that Dutch elm disease was introduced into the United States in the mid 1920's when a shipment of European logs was brought into the Port of New York. As a result, it is estimated that one hundred million American elm and other elm trees were killed by that disease, which is now found in every state in the nation. Chestnut blight was introduced into the United States on imported chestnut trees in the early part of the century. It has now spread over 200 million acres and has killed billions of mature trees. White pine blister rust, which was also introduced from Europe, spread throughout the range of white pine in only 10-20 years. This disease has killed 80-95% of the white pine trees in infested stands from California to Montana. One last example is gypsy moth, which was introduced from Europe in the late 1800's and is now defoliating hardwood trees from Maine to Michigan and Virginia. Once these diseases and pests were introduced, there was no way to eradicate them or even to stop their spread. The continued problems from these pests and diseases, as well as more recent introductions, indicate that we still do not know how to eliminate or even control these pests once they are in the our country.

The Proposed Rules for Importation of Whole Logs, Timber, and other Unmanufactured Wood Articles into the United State recently promulgated by the Animal and Plant Health Inspection Service (APHIS) are guaranteed to allow new pests and virulent pathogens to enter the U.S. Although we would all like U.S. timber mills to remain open and operate at full capacity, the reality is that the risk of introducing exotic forest pests and diseases that infest foreign logs is too great. The new Proposed Rules are completely and totally inadequate. I am a scientist and am used to reaching conclusions and making management decisions based on the best available scientific evidence. But the Proposed Rules and the associated Draft Environmental Impact Statement cannot be defended at any reasonable level.

Today, I'll first discuss a few of the myths associated with this topic; and then I'll mention a few of the rules and procedures in the Proposed Rules that can only be called absurd.

Myth #1: Log imports are needed to make up for the short-fall in timber due to environmental regulations and new ecosystem management.

Reality: There is plenty of timber in the Pacific Northwest and the rest of the U.S., but much of it is being exported out of the country. Last year, nearly **four billion board feet of high quality American logs and unprocessed lumber** were exported to Japan and other countries from public and private lands in Oregon, Washington, and Alaska alone. This is far more than what is required to keep all Northwest lumber mills operating at capacity. In other words, we are helping to provide full employment for mill workers in Japan while closing down mills in the U.S.

Myth #2: Log imports will improve the economy of timber-dependent communities in the United States by providing wood for mills and jobs for mill workers.

Reality: The introduction of exotic insect pests and disease organisms could devastate forests throughout the country and eliminate important tree species from commercial use. Losses of these trees and forests would eliminate jobs for loggers and workers in the wood-products industry, destroy tourism in these regions, and reduce commercial and recreational fishing. There are 175 known pests associated with Siberian Larch trees alone. Siberian Larch is closely related to Douglas fir, which is very vulnerable to these pests. Just as Chestnut blight once killed one-quarter of all trees in the eastern United States (1994, Draft EIS), any one of these 175 pests could eliminate Douglas fir as a timber species. This would result in massive dislocation of workers and disruption of towns and communities of forested regions. In addition, introduction of exotic pests would have a severely damaging effect on the American nursery industry. Mr. Craig Regelbrugge, Director of Regulatory Affairs and Grower Services, of the American Association of Nurserymen asked me to convey to you his organization's deep concerns about the Proposed Rules and the effects that new pest introductions would have on their industry.

Myth #3: By importing logs from abroad, our own forests can be spared.

Reality: By introducing new pests and pathogens, we could devastate our own forests. Forest-dependent species such as the northern spotted owl, marbled murrelet, salmon, fisher, numerous salamanders, and hundreds of mollusk, insect, and plant species are already threatened with extinction by severe fragmentation of our nation's forests due to past over-logging. With new infestations by exotic diseases, large numbers of trees would die and many old-growth dependent species would go extinct. Furthermore, any introductions of new pests and diseases would be countered with massive applications of pesticides, which would not only endanger humans and poison water supplies, but harm hundreds of non-target forest species.

Absurdity # 1. Published research discussed in the Draft Environmental Impact Statement and more recent studies suggest that all imported wood articles should be heated throughout to a minimum of 160°F for 75 minutes. The Proposed Rules, however, call for wood articles to be heated only to 133°F for 30 minutes.

Absurdity # 2. Except for those wood articles that come from Siberia, imported logs and other articles will not be required by APHIS to be heat treated until 1 to 2 months after their arrival at U.S. ports. During these two months, the logs can be stored uncovered in ports or in exposed mill yards and transported in open trucks throughout the region, including through valuable forests. Throughout this two-month period, spores of fungi can be released into the air, insects can emerge and fly to neighboring trees, and pieces of bark and branches can blow off in the wind. As a result, all trees near the ports, mills, and along transportation routes are in danger of being infected by virulent diseases.

Absurdity # 3. Although many experts emphasize that complete debarking is necessary for fumigants to reach and kill all surface-dwelling insects, the new rules allow the imported logs to retain 2% of their bark. Even with 98% of the bark removed, a substantial numbers of insects can be transported from the export country to the United States.

Absurdity # 4. Methyl bromide was recommended in the Proposed Rules to be the main fumigant applied to logs and other wood products to kill pests, although

(1) Methyl bromide is known to be a serious depleter of the stratospheric ozone layer and is scheduled to be banned from all production and use in the U.S. by the year 2001 by the Montreal Protocol, to which the U.S. is a signatory;

(2) It is due to be banned by the Environmental Protection Agency since its use is inconsistent with the Clean Air Act;

(3) It is an acutely toxic agent that causes human birth defects and neurological damage;

(4) It penetrates only an inch into wood and cannot therefore kill disease organisms in the center of logs;

(5) It is released from wood slowly so that ship workers, longshoremen, and wood-industry workers in the U.S. may be exposed to excessive amounts during off-loading and milling.

Absurdity #5: Certification of compliance of all regulations required by the importation permits will be left up to the brokers or exporters of the logs and timber, not to APHIS or other government inspectors. This self-regulation is called for in spite of the fact that (1) the timber industry in Siberia is known to be controlled by a "Mafia" of corrupt businessmen; (2) there have already been illegal shipments into the U.S. of unpermitted wood articles from New Zealand and Chile; (3) timber shipments from Siberia are frequently sent to the wrong destinations; and (4) American mills are already known not be complying with existing rules. In the former Soviet republics, black markets, government corruption, and a timber-industry Mafia make any tracking of wood articles impossible. And the only penalty to importers for breaking the rules is loss of import permits for one year, a mere slap on the wrist.

Absurdity #6: Although certification of compliance of the rules has been left up to the exporters and timber industry, APHIS and state personnel are expected to monitor the shipments once they are in the U.S. However, governmental inspectors are too few to oversee large numbers of quarantined logs through all steps between ship docking and final heat treatment. In Oregon, for example, only one APHIS inspector has been assigned to monitor compliance in 17 lumber mills spread over half the state.

Absurdity #7: The Proposed Rules require that **all waste materials** be sterilized before discarding, but log importation is an inherently dirty process. Waste is generated at dockside during unloading, at trucks during loading and unloading, and during milling. Although under quarantine, these procedures give ample opportunities for sawdust, bark and wood chips to escape into the environment. Even small bits of sawdust may harbor microscopic pathogenic organisms. In many cases, it is simply not economical for the timber industry to change from its normal procedures and adhere to new sterile techniques.

Absurdity #8: The State of California and timber exporting countries such as Chile and New Zealand have higher standards of plant protection and pest exclusion than those proposed by APHIS for the United States. In fact, American logs would not be allowed to enter Chile. Recently, imported logs approved by APHIS for entry into the United States and shipment through valuable forests of northern California were stopped by an inspector from the California Department of Food and Agriculture, who found numerous extremely serious pests in the

shipment. California's regulations were stringent enough to identify the pests; APHIS's were not.

The surest test of the adequacy of any regulation is whether or not it actually fulfills its goals. Our short history of importing logs from Chile and New Zealand under Interim Rules similar to the new Proposed Rules has produced strong evidence that these rules do not work. For example, an importer recently brought western red cedar into the Port of Coos Bay, Oregon, without a permit. No risk assessment had been developed for this tree species, so the inspectors had no information about the pests that might be harbored in the wood. APHIS attempted to have the logs burned, but the Oregon Department of Environmental Quality would not permit it. Finally, APHIS allowed the logs to enter the U.S. after fumigation, but the inspectors did not know whether fumigation would be adequate to kill all the pests.

Another requirement of the Interim and new Proposed Rules is that only healthy trees be exported to the U.S. However, a recent load of logs arriving in California was found to be diseased. This is yet another example of lack of compliance by exporters. And I have received word that sawdust and chips from logs imported from New Zealand and Chile into California are being combined, without sterilization, with waste from native trees and being spread as mulch in California's forests.

These plus several other examples of negligence and illegal activities by foreign exporters and American mill owners illustrate the potential for virulent diseases and exotic insects to be introduced into the forests of the United States. These risks far outweigh the benefits derived by a few lumber mills. The loss of even one important timber species such as Douglas fir, Loblolly pine, or Northern red oak would wipe out large segments of the timber industry of the United States.

At the Forest Summit in Portland last year, President Clinton stated that the new Forest Plan must be "scientifically sound, ecologically credible, and legally responsible." APHIS's Proposed Rules for importing logs and other unmanufactured wood articles into the United States do not meet any of these criteria.

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Protecting Oregon's lands, waters and natural resources

from Joy Belsky, Staff Ecologist and Dan Hall, Volunteer Policy Analyst

Timber Imports Threaten Northwest Forests!

Lumber mills in the Northwest are beginning to import raw logs, lumber, and wood products from Chile and New Zealand and are proposing to import from Siberia as well. Leading forest plant pathologists in the United States say that log imports from temperate countries can be devastating because logs and wood products from these countries are likely to carry insect pests and plant diseases that can thrive in American forests. These pests are capable of eliminating individual tree species and decimating entire ecosystems.

In the eastern U.S., American chestnut, American elm, and white pine have been destroyed by pests that entered the U.S. on imported logs or nursery stock. These diseases killed billions of mature trees and changed the composition and ecology of these forests forever. The U.S. Department of Agriculture's Animal & Plant Health Inspection Service (APHIS) is finally writing rules to regulate wood imports—**but they are not adequate!** APHIS's Proposed Rules create a whole new set of problems for the forests of the Northwest and the world.

RISKS DUE TO IMPORTS

- Foreign insects, fungi, and bacterial/viral pathogens often have no predators in North America, and domestic plants lack immunity to them. Consequently, introduced pests can reach epidemic proportions. American chestnut, for example, once made up one-quarter of all hardwood trees in eastern U.S. forests, but it has been nearly exterminated by the introduced (foreign) chestnut blight.

- Over 175 known pests are associated with Siberian Larch trees alone. Douglas fir is vulnerable to these pests. APHIS projects possible **timber losses of $58 billion** from pests introduced from Siberia. Such estimates do not include impacts to aquatic resources, wildlife habitat, and forest-dependent species.

- Attempts to control foreign pests have historically included pesticide applications to infested forests, causing further human health and environmental damage and costing taxpayers millions. The recent introduction of Asian gypsy moth by grain ships from Siberia cost American taxpayers $27 million to control!

- Scientists say that only heat-treated wood is safe and effective for import. However, APHIS calls for temperatures below those known to be effective against many virulent pathogens and the treatment can be applied months **after the arrival of the logs** at U.S. ports.

- APHIS also recommends fumigating logs and wood products with methyl bromide, an acutely toxic pesticide that also depletes the critical ozone layer. Its production and sale will be banned in the U.S. after 2001. New uses of methyl bromide should be prohibited, not mandated.

- The high-latitude forests of the Siberian taiga are slow-growing and may never recover from the clearcutting proposed by Hyundai, Weyerhaeuser, and other multinationals. Indigenous peoples who subsist on hunting and farming will lose their livelihoods and endangered species such as the Siberian tiger will lose their ecosystems, perhaps forever.

APHIS FACTS...AND FICTIONS

- Imports are *not* needed. Approximately 3.5 billion board feet of softwood logs and lumber were exported from public and private lands in Oregon, Washington and Alaska in 1993 alone. This wood, plus alternatives such as recycling, conservation, and fiber from non-wood products, are ignored by APHIS.

- APHIS's risk assessments for proposed imports ignore unsuspected pests. Asian chestnut blight, Dutch elm disease, and the gypsy moth were all unknown or considered innocuous before they began destroying American forests.

- APHIS's plans to rely on self-reporting by importers create an incentive for deceit. Because APHIS is not planning to assess fees on imports to pay for inspection, they will not have the resources to verify this information. Indeed, APHIS proposes to do "one stop permitting" for entire classes of shipments. The only penalty for breaking the rules will be loss of import permits for one year, a slap on the wrist.

- In the former Soviet republics, the black markets, government corruption, and a timber-industry Mafia make the tracking of wood products utterly absurd.

- Imports from areas of high unemployment, such as Chile, Siberia, and even New Zealand, take needed jobs away from local workers.

WE MUST DEMAND

- That APHIS ban all *whole log* imports due to its inability to guarantee pest free logs.

- That APHIS ban all timber imports from the former Soviet Union due to the especially high pest risk, the impossibility of verifying its compliance with regulations, and the incompatibility of Siberia's deforestation with U.S. foreign aid policies intended to stabilize their economy.

- That APHIS develop an alternative that fully reduces the risks and actually has some teeth. More specifically:

  1) Any imported timber should be cut and heated to 160°F (rather than the proposed 133°F) for complete pest eradication. Treatment should be conducted in the country of origin. This and all other eradication techniques must be thoroughly tested for each pest and tree species before approval. Verification of the effectiveness of such techniques is now lacking.

  2) APHIS should grant import permits for wood products only after establishing minimum standards and practices for foreign inspections and future risk assessments.

  3) Importing companies should post bond for possible eradication after pest infestation, and owners, parent, or partner companies should be held liable. Importers should also be assessed for inspection and research costs.

  4) The rules should include provisions for citizen suits and civil penalties to help promote enforcement.

For more information contact:
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Protecting Oregon's lands, waters and natural resources

9 December 1993

The Honorable Mike Espy
Secretary, Department of Agriculture
14th and Independence Avenue, SW
Washington, D.C. 20250

Dear Secretary Espy,

The United States is currently in the untenable position of exporting high-quality, unprocessed American logs to Asia while American sawmills are allegedly closing for lack of timber. U.S. companies are proposing to remedy this situation by importing into the U.S. logs that are of lesser quality and are often infested with destructive insect pests and virulent pathogens that could cause irreversible damage to the U.S.'s most valuable forests.

The Oregon Natural Resources Council, a conservation coalition with more than 6000 individual members and 50 member organizations in the Pacific Northwest, and the Pacific Environment and Resources Center's Siberian Forests Protection Project, which has been working since 1991 with Russian forest scientists to develop conservation strategies for the Siberian taiga, urge you and the Department of Agriculture to reverse this irrational situation **by keeping American logs in the United States and keeping foreign logs out.** In this way, we can avoid the economic and ecological "train wrecks" that will definitely take place in the timber-dependent communities of California and the Pacific Northwest if forest and agricultural pests are transported on the logs imported from Russia and other countries. We might also prevent the Siberian timber industry from embarking on the same non-sustainable path that has created the ecological, economic, political, and human problems now occurring in the Pacific Northwest and California.

We would like to outline some of the problems about which we are particularly concerned:

A. **Importation of foreign forest and agricultural pests:** History is replete with examples of insect pests and bacterial and fungal pathogens being introduced into areas where they have no natural predators and where native species have no natural immunities and are vulnerable to attack. Under these conditions, introduced species have no biological barriers to their population growth and their numbers often increase exponentially until they reach epidemic proportions.

Time and time again we have witnessed introduced species such as the European gypsy moth, Dutch elm disease, and Asian chestnut blight decimate whole populations of tree species over large portions of their ranges. These diseases have led to losses of billions of dollars in commercial timber and high costs for mitigation and control. In fact, the Office of

Technology Assessment (OTA) estimated that 15 of the most harmful imported pest species could eventually cost the U.S. $134 billion (1991 dollars).

Importation of raw or inadequately processed logs into the U.S. is highly dangerous. Valuable timber species such as Douglas-fir, western red cedar, and ponderosa pine have little resistance to the pathogens and insects that have evolved in Asia. The current loss of entire stands of the valuable timber species, Port-Orford cedar, due to infestation by the lethal laminated root-rot disease is an example of the virulence of exotic diseases.

We cannot overstress the importance of avoiding the introduction of exotic pests into the United States. Techniques for totally eradicating pests and pathogens on the surface and in the interior of logs are now available. However, we caution that the U.S. not rely on these techniques until they have been thoroughly tested. ONRC recently spoke with a member of the Animal and Plant Health Inspection Service (APHIS) in Washington, D.C., who said that different fumigation techniques were being studied as part of the Environmental Impact Statement (EIS) process for the importation of foreign logs, but that none were being experimentally tested. In other words, if forest pest or pathogen species from any log-exporting country have biological properties that make them more resistant to control techniques than species studied previously, this will not be discovered until after the pests have been introduced into our country.

We should follow the lead of the European Community (E.C.), which has a strict forest-protection program. The E.C. prohibits the importation of raw logs, and they require that lumber be kiln-dried in the country of origin. This ensures that forest pests will not be inadvertently transported and released into Europe during ship off-loading or during transit to the wood's final destination. The E.C.-standard should be displayed as an alternative and adopted as the preferred alternative by the Department of Agriculture in the EIS that the Department is currently preparing.

As a second alternative (although we *emphatically* recommend the E.C. standard), we urge the USDA to enact the following regulations, as a **minimum**, before allowing the entrance of foreign timber into the U.S.:

1. Only the most effective eradication techniques, such as heat treating wood to 160°F throughout, should be used. This treatment kills all insects and fungi in the interior of logs, which simple debarking and fumigation techniques do not.

2. Pest eradication should take place in the country of origin;

3. The holds of transport ships should be fumigated before reaching U.S. ports since foreign pests, such as the Asian gypsy moth, can be brought into the United States in this way. Fumigation of ships is especially critical for logs from Asia, where "clean" ports are not yet available.

4. Companies importing foreign logs or lumber should have to post bonds to ensure that the costs of inspection, research, and possible eradication after release of pests be recovered. Since the cumulative potential losses from the Asian gypsy moth and the nun moth have been estimated at between $35 billion and $58 billion (1991 dollars), this bond should be commensurably high.

These steps should be taken for log imports from all foreign countries, not just from Chile, New Zealand, and Russia. Because logs from any

foreign country may harbor organisms that could potentially devastate West Coast forests and our timber industry, they must all be treated.

B. Sustainable forestry in Russia: Having experienced the negative consequences of logging the forests of the Pacific Northwest beyond their sustainable limits, the U.S. should help other timber-producing regions develop their resources along more rational lines. We should assist Russia, for example, in developing forest management techniques that are compatible with their boreal, taiga ecosystems. Assistance in ecosystem management and sustainable economic development would be consistent with the goals of the U.S. Government, which are to help Russia improve and stabilize its economy. Since the Department of Agriculture, through its log-permitting activities, is in a position to facilitate these national goals, we urge you to consider the following consequences of unrestricted logging in Siberia:

1. Clearcutting, road construction, and habitat destruction in the United States have led to losses of species, productivity, natural ecosystems, and industries, and to the impoverishment of timber-dependent communities. The same has occurred in Siberia and is likely to worsen. Timber companies, both foreign and U.S., that are now positioning themselves to log these forests are proposing to use the same clearcutting techniques that the U.S. Forest Service is now rejecting. These techniques were inappropriate for the forests of the U.S.; they are even more inappropriate for the forests of Russia. The high-latitude forests of the Russian taiga are slow-growing and often underlain by permafrost. Large-scale removal of the protective thermal blanket of vegetation causes melting of the ground and the creation of muddy swamps and permanent lakes. Melting of the permafrost may also lead to decomposition of vast amounts of organic matter stored in the frozen taiga soils and the release of methane, a greenhouse gas, into the atmosphere.

   Without proper logging methods, many harvested areas will never reforest; those forests that do regenerate will grow slowly and have long rotation periods. These climatic conditions and ecosystem responses must be factored into management plans before the United States encourages the logging of taiga forests by allowing the importation of these logs.

2. The export of raw or minimally processed logs from Siberia to America will lead to the same economic and social problems in Siberia that are currently being experienced by small timber-dependent communities in the United States. The people of Siberia will receive few benefits from the export of raw logs and will be prevented from developing stable economies or communities. We should help this new nation develop by encouraging forest managers to build lumber mills and process their wood into value-added products.

C. Endangerment of Siberian forest-dependent species. The rare Siberian tiger has been reduced to a population size that may be as low as 250-300 animals in the wild. Numbers of these tigers will continue to decline as the forests are logged. In fact, one U.S. timber company has requested permission to log an area that Russian scientists have long been seeking to have designated as a nature preserve. Even though the former Soviet Union and the current Russian government have had neither the commitment nor the resources to protect this area, the United States should not accelerate the rate of loss of these irreplaceable resources by letting companies take advantage of Russia's current problems. Instead, the U.S. should encourage Russia to establish reserves and protect their rare species. Siberian tiger, spotted deer, musk deer, and the Himalayan black bear are only a few of the species that may be threatened by unregulated timber harvesting.

4. Secretary Espy, 9 December 1993

NEPA and ESA Requirements. The National Environmental Policy Act (NEPA) requires that the Department of Agriculture consider the impacts associated with the importation of logs from foreign countries. The Department of Agriculture must also consult with the U.S. Fish and Wildlife Service about the possible effects of imported logs and associated pests on native plant and animal species.

We want to encourage the development of mutually beneficial trade relations between Russia and the United States and to encourage Russia to develop its resources in an ecologically sound fashion. This can be done to the satisfaction of all concerned, but not if devastating pests and infestations are introduced into U.S. forests or if special interests concerned only with low-cost extraction of Russian resources are given free reign. **We hope that the failures of the American timber industry and American forest managers will not be repeated in Russia; and we certainly hope that the U.S., through our log-import permitting laws, does not encourage the logging of Siberia.**

Sincerely,

A. Joy Belsky, Ph.D.
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David Gordon by NOS

David Gordon
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STATEMENT OF KENELM W. RUSSELL

Mr. Chairman and members of the subcommittee: Thank you for inviting me to comment on importation of foreign logs, lumber, and other unmanufactured wood articles.

As Forest Pathologist for the Washington State Department of Natural Resources' (DNR), I have been intimately involved in the temperate zone log import issue since it began about four years ago. I attended several working meetings on the West Coast to help shape preliminary ideas for the Draft Environmental Impact Statement.

I have concerns about log imports from two different points of view: 1) concerns about the exotic pest threat to Washington forest lands which includes 2.1 million acres of state, 10 million acres of private, and 5 million acres of federal lands; and 2) concerns as manager of a statewide forest health program whose clientele own or manage almost 12 million acres of those commercial forest lands. New and exotic forest pests are one of our worst collective fears.

Since 1965, I have dealt with many destructive forest pests in Washington. Most are native; a few are introduced exotics. The detection and prevention of exotic pests of trees are extremely costly. For instance, since 1980, the USDA and numerous states have spent more than $130 million to suppress gypsy moth infestations. Half of this amount was spent in the last five years. Just a single "eradication" spray in the Tacoma, Washington, vicinity of a suspected Asian gypsy moth infestation cost more than $13.5 million. This project was based on the presence of only six trapped "escapees" likely hatching from an egg mass on a ship arriving from a Russian Far East port.

It literally takes an army of people to detect a few exotic pests. In 1992, the 360 additional gypsy moth trappers increased the regular staff of the Washington State Department of Agriculture (WSDA) by more than half.

Changes in Wood Supply

As the supply of available wood, particularly from federal lands, declined in the Pacific Northwest, interest in alternative log sources increased. Even though the Pacific Northwest exports high quality logs, economic pressure for lower quality wood may create a real demand for foreign logs. Imported logs may be needed to sustain those U.S. mills without a forest land base who traditionally purchased logs from federal or state lands.

Problems Inherent in Log Importation

From a purely biological view, the import of temperate zone logs and other unmanufactured wood articles to the United States is not in the best interest for the health and protection of our forests. Nevertheless, if for economic reasons logs are imported, regulations must provide for the highest level of pest prevention; inspection alone will not suffice.

I would like to leave with you the following points:

1. Imported logs should arrive looking as clean as children's Tinkertoys.

2. Imported logs should not be processed in close proximity to suitable host forests. Transportation of logs after arrival often takes them in many directions to numerous processing facilities deep within forested areas. This presents a high risk of escaped pests. Log processing sites must be certified as safe places to mill imported products.

3. Better proven and safe substitutes are needed for fumigating logs before arrival at U.S. seaports. The recommended fumigation of logs by methyl bromide is being phased out by the end of this century. Too much dependence is placed on this material to reach deepwood pests. Although methyl bromide has been safely used for years, there is not complete penetration of even medium-sized logs approximately eight inches in diameter. We also are not convinced that the EIS recommended heat treatment for killing pests deep within logs is sufficient for all insects and diseases. A slightly higher temperature would render the wood as close to sterile as reasonably possible.

4. Neither APHIS nor Washington and Oregon Departments of Agriculture have adequate staff to do thorough inspections of imported logs. Government inspectors from both federal and state agencies must monitor all stages of the handling of imported logs. The difficulty in searching for pests in large piles of logs and wood chips means that inspectors must evaluate based on superficial examination. WSDA has only one person available to inspect logs on an intermittent basis. Log inspection should be continuous to be effective. In the interim, assistance by the four person DNR Forest Health staff has been used, but they would quickly become overwhelmed if the process becomes routine, as log inspection is not their normal role.

5. Costs for inspection and other services for importing logs should be covered by the companies bringing them here. Companies are more amenable to assessed fees based on tonnage or volume, rather than hourly or ship charges. WSDA now has authority to charge inspection fees for grain and hops. The Washington Legislature could approve log inspection fees in 1995 by a simple majority vote of both houses.

6. More federal funding is necessary for APHIS and particularly impacted states to intensify log import regulations at the state level Washington needs a one-time federal grant to establish a log inspection protocol. Assessed fees could then cover normal program operations.

Destructive forest insects and diseases are insidiously at work. They do not respect political boundaries; they do not take vacations, but they are known to hitchhike across oceans. Thus, dealing with log import regulations must be a closely integrated hand-off between APHIS and state departments of agriculture to ensure a high quality import log regulation system that absolutely minimizes the accidental importation of pests.

STATEMENT OF SCOTT BERG

My name is Scott Berg, assistant vice president, forest environment and research and I am here today representing the American Forest & Paper Association. Thank you for the opportunity to present formal testimony on the January 20, 1994 Proposed Rule by the Animal Plant and Health Inspection Service (APHIS) addressing the importation of logs, lumber, and other unmanufactured wood articles. The American Forest and Paper Association (AF&PA) is the national trade association representing the growers and producers of wood and paper products in the United States, many of whom import and export unmanufactured wood products in the global market place. Thus, our members have a direct and substantial interest in the rulemaking that APHIS is engaged in and want to work with the Subcommittee on Specialty Crops and Natural Resources on this important effort.

The American Forest and Paper Association fully supports a deliberative approach to carefully considering the question of phyto-sanitary requirements for imported unmanufactured wood products as proposed by APHIS. Before addressing the specifics of the Proposed Rule, we believe it is essential to clearly state the forest industry's objectives for the rulemaking. Those objectives include:

1. Prevent the introduction into the United States of potentially harmful exotic insect pests and diseases that could threaten the future health and productivity of the U.S. forests;

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2. Prevent unnecessary delays and barriers to entry of imported forest products needed by U.S. manufacturers and consumers;

3. Minimize the administrative and compliance costs, for both APHIS and prospective importers, of implementing and adhering to essential phyto-sanitary requirements; and

4. Maintain a phyto-sanitary regulatory climate that encourages reciprocal trade in forest products between the U.S. and its trading partners, and is consistent with overall trade policy objectives, whether established under bilateral trade agreements or under the GATT process.

Consistent with the above objectives, our primary concerns and input regarding the APHIS Proposed Rule on log imports are detailed below:

1. APHIS Has Done a Good Job in Developing and Proposing Effective Regulations to Protect Domestic Forests from Exotic Pests and Diseases.

The forest products industry shares the concerns of APHIS regarding the risks of introducing exotic plant pests and diseases that may be associated with the importation of unprocessed logs or other wood products. Considerable scientific and empirical evidence is available documenting the destructive potential of non-native pests such as Dutch Elm disease, Chestnut Blight, and the Gypsy Moth; to name a few. International trade laws

recognize the rights of nations to protect their native animal and plant resources from such risks and many have risk assessment, inspection and control requirements, and mitigation programs to address imported pests and diseases.

The U.S. forest products industry, therefore, believes that APHIS has an obligation and the authority to establish import inspection and control measures for unmanufactured wood products. Such phyto-sanitary procedures and measures must be effective in order to protect U.S. forests from exposure to potential threats. They must also be reasonable and cost-effective in order to not inappropriately affect existing and future international trade in forest products.

We also agree with APHIS that pressures to increase importation of wood products will most assuredly accelerate as artificial resource supply constraints occur as a result of timber set-asides and environmental restrictions. Reducing the federal timber harvest by eight (8) billion board feet is increasing price pressure on wood products that is causing private landowners in all regions of the U.S. to accelerate harvest levels and on unmanufactured log imports from other countries. This exceeds the annual production of approximately 6.5 billion board feet from both New Zealand and Chile combined.

We further agree that the current practice of inspection at the port of entry and prohibition of imports based on insufficient information is not satisfactory, particularly in light of the significant new interest in importing unmanufactured wood products into the U.S. Importers need to be able to plan their transactions in an orderly manner to meet credible and

consistent regulatory requirements. AF&PA believes that the Proposed Rule offers generally effective and efficient regulations to establish an organized system for importing unmanufactured wood articles.

2. AF&PA Supports the General Permit for Domestic Species Imported From Canada and Mexico.

AF&PA believes that there is ample justification for an exemption from the proposed rules for imports from neighboring states of Mexico and Canada. There has been a long history of forest products trade with Canada and Mexico in specific species and wood products that are indigenous to both of our countries. These include logs, pulpwood and wood chips now freely traded between the three North American trading partners. The proximity of the three countries and the lack of historical evidence of infestations warrants an exemption for imports of domestic and native species.

Instead of an outright exemption, APHIS has proposed a General Permit that would allow importation if the importer certifies that the wood originated from that neighboring state. We believe that this will effectively eliminate the possibility of substituting wood from non-neighboring countries with the least amount of paper-work and regulatory burden.

AF&PA also agrees with the proposal to exempt solid wood packing material used as packing for regulated articles from the specific permit requirements that would otherwise apply to imported solid wood packing materials. To separately permit solid wood packing material would be a substantial economic burden without significantly reducing plant pest risk.

AF&PA supports additional general permits over time as APHIS gains experience with the kinds of wood imports and their associated pest risks. In the interim, the permit process proposed in the rule, including the opportunity for appealing the withdrawal of permits, will be effective in reducing the risk of inadvertent pest introductions and efficient in terms of minimizing costs and delays.

3. The Forest Industry Agrees with the Objectives of Universal Requirements Followed by Specific Procedures for Evaluating Other Imports.

Our member companies inform us that they are interested in and are exploring importing substantially greater quantities of unmanufactured wood products in the near future. Given the range of potential import situations, it makes sense to establish universal importation requirements as a floor of protection for which any articles may be imported from anywhere in the world.

The most common foreign sources of imported wood that are under consideration by U.S. importers are Chile and New Zealand. Given these relatively discrete locations and products, AF&PA agrees with the objectives as outlined in the Federal Register notice including specific importation and entry requirements for particular article-origin combinations. These proposed requirements would allow importation under less restrictive conditions than the proposed universal importation requirements.

In addition to the universal importation requirements and less restrictive conditions for discrete locations, AF&PA supports APHIS's efforts to establish procedures for case-by-case evaluations of whether to allow unmanufactured wood under conditions other than those specified. The importer could then expect a decision on the permit in a reasonable amount of time without unnecessary notice-and-comment for every new and different product that might be imported. This could be accomplished through case-by-case risk assessments. These objectives would allow both APHIS and importers the maximum flexibility to operate in the coming years.

4. APHIS Should Address EPA's Proposed Regulation to Phase-out the Use of Methyl Bromide and the Limited Availability of Substitutes.

Of the few available treatment methods mentioned by APHIS, the forest industry is concerned that methyl bromide may not be available beyond the year 2001. EPA has proposed to remove methyl bromide from the market due to concerns over its ozone depletion

potential. If methyl bromide fumigation is removed from the market, the forest industry will lose the single most effective fumigant in controlling insect pests. We are not aware of any alternative treatments or processing methods that are as effective in controlling pests or economically cost-effective. We urge APHIS to communicate the importance and irreplaceability of methyl bromide for treating wood products to EPA.

APHIS should also accelerate research efforts into finding effective alternatives to methyl bromide. USDA is in an excellent position to ramp-up a substantial research effort in this area in order to find adequate substitutes. APHIS should also seek an expedited review and approval process for registration of new pesticides from EPA. This will require close coordination with EPA as new research into pesticide efficacy and safety will need to occur on parallel tracks.

5. AF&PA is Concerned that Heat Treatment of Certain Logs May Damage Wood Quality.

AF&PA is concerned that the requirement to heat treat certain logs to destroy associated plant pests could cause damage to the surface wood, which may be the primary reason a particular species of tree or wood product is imported. The specified temperatures at the center of each treated log of at least 56 degrees centigrade for at least 30 minutes may cause damage to the wood and reduce the value of the logs. It appears that these heat treatment criteria are based on standards set for sawn lumber, not for whole logs. APHIS needs to make sure that temperatures are sufficient to be effective in destroying pests, but not to the point of defeating the underlying objective of importing high quality wood materials.

AF&PA also questions the requirement to shrink-wrap wood articles to prevent them from being reinfested with pests following heat treatment. Our members' experience indicates that the likelihood of reinfection after treatment is extremely low. APHIS should focus on more cost-effective treatments or handling procedures.

6. AF&PA Requests that the Proposed Rule Include Irradiation in the Universal Importation Option for Logs.

APHIS should include the option of irradiation technology to sterilize log imports by U.S. wood producers in this proposed rulemaking. AF&PA believes that this existing technology could offer real advantages given the uncertain future for methyl bromide use and concerns over effects of heat treatment on wood quality.

The forest products industry is generally exploring the potential of irradiation as a treatment option. Preliminary assessments have concluded that the irradiation technique lends itself to both whole log processing and large volume treatment. It also shows promise as being a viable, cost-effective mitigation method when compared to dry kiln or heat treatment.

Given the uncertainty of the future availability of methyl bromide, irradiation research and the search for substitutes generally should receive priority within APHIS. In conjunction with the timber supply crisis in the Pacific Northwest, the need is even more apparent and

timely. AF&PA requests prompt action by APHIS to evaluate the potential of irradiation as a treatment technique and include it in the proposed rule as an option under the universal importation requirements.

Irradiation offers the potential to substantially increase timber imports and alleviate the timber supply crisis in the Pacific Northwest while ensuring the protection of domestic forests from introduced pests. The widespread implementation of irradiation technology to meet phyto-sanitary requirements may offer the opportunity to expand markets for U.S. exports in the future.

7. AF&PA is Concerned that it is not Practical to Require Chips to be Transported in "Holds or Sealed Containers."

AF&PA believes that it is not practical or reasonable to require that all wood chips be transported in the holds of ships or sealed containers. In many cases, there are not sufficient volumes of wood chips or adequate loading facilities in developing countries to justify the use of a large freighter or closed container vessels. Consequently, forest products companies have been planning to barge chips on large platform barges, particularly along the Gulf of Mexico coast, that would not be sealed.

Barging of chips offers advantages over sealed containers in that the chip inventories can be kept much smaller (10,000 tons per load) and fresher with proportionately more

departures. Chips can also be loaded directly onto barges rather than stockpiled on the ground awaiting a freighter. This has obvious advantages in terms of avoiding the opportunity for insects and other decay organisms to infest the chips.

The better approach would be to specify that logs be chipped and loaded onto barges or ships in the minimum amount of time possible. If the bark is removed shortly after harvest and the logs are chipped and loaded and transported quickly, insects and disease have little opportunity to infest the chips.

8. The Requirement to Process Chips Within 30 Days is Not Practical or Reasonable.

There are situations where chips may be stored at manufacturing facilities in the U.S. for more than 30 days before processing. Mill shutdowns and the rotation of chip piles may cause delays that are not anticipated or planned. And, if the chips are transported to the U.S. without long storage times in the country of origin, the potential for pest infestations is minimized.

Larger inventories of wood chips offer foresters the advantage of being more selective in how and under what conditions trees are harvested and transported to the mill. Wet periods during the winter, particularly in the Southern United States swamps and wetlands, limit access to domestic supplies due to environmental restrictions and other logistical constraints. More flexibility in wood storage times would allow foresters the options they need to be more sensitive to resource protection concerns.

AF&PA believes that APHIS should allow a 60-day period for storage of chips in the U.S. Or alternatively, there should be a mechanism to monitor the chip piles to ensure that insect infestations are not present and thereby allow longer periods of time than the specified 30 days.

Again, we appreciate the opportunity to provide these comments to the Agriculture Subcommittee on Specialty Crops and Natural Resources regarding the APHIS Proposed Rulemaking addressing wood imports. We look forward to working with the agency and Congress to constructively develop regulations that are protective of America's forests, yet are reasonable and flexible to administer and comply with.

STATEMENT FOR THE RECORD
OF
BOISE CASCADE CORPORATION

Thank you for convening the hearing which gives us the opportunity of presenting Boise Cascade Corporation's views on the rule proposed by the Animal Plant and Health Inspection Service (APHIS) dealing with the importation of unmanufactured wood articles in to the United States. Boise Cascade Corporation is an integrated paper and forest products company headquartered at Boise, Idaho, with operations located in the United States and Canada. The company manufactures and distributes paper and paper products, office products, and building products, and owns and manages timberland to support these operations. Boise Cascade Corporation is a member of the American Forest and Paper Association and supports the testimony given by that association before your committee on this subject. Boise Cascade Corporation does offer specific comments on the APHIS Rule related to its experience in dealing with imported unmanufactured wood articles, specifically Radiata pine logs harvested in New Zealand and transported by ship to the West Coast of the United States.

Boise Cascade Corporation operates two sawmills in Southern Oregon. These mills have historically processed high-quality ponderosa pine and sugar pine logs to meet the needs of our customers. The logs harvested from Boise Cascade Corporation 135,000 acres of privately owned timberland tributary to this area have historically been supplemented by logs harvested from tributary federal forest lands in Oregon and Northern California. This raw material acquisition method has allowed these mills to supply the needs of more than 30 customers located throughout the United States. These customers include manufacturers of window and door parts who not only add significant value to the lumber produced by

Boise Cascade Corporation, but also, through their remanufacturing efforts, provide thousands of jobs. Now, because of public policy, litigation, and regulation, this historic wood supply has drastically changed to almost exclude federal sources from our historic log supply equation.

Boise Cascade Corporation must now attempt to replace its historic sources from elsewhere. Private and federal logs are trucked to the Port of Sacramento and reloaded into railcars and transported to Medford, Oregon. State of Washington timber sales have been purchased, harvested, and trucked to Medford. The possibility of harvesting ponderosa pine logs in the vicinity of Chiwawa, Mexico, and rail transporting these logs to Medford has been evaluated, but at this point, deferred. And we have tested and made production runs of Radiata pine logs harvested in New Zealand by timberland owner, Rayonier Corporation, and delivered to Boise Cascade Corporation at the Port of Sacramento, California, for truck and rail shipment to its sawmills in Medford, Oregon. Because western federal timber supply is hopelessly gridlocked, Boise Cascade Corporation must use every avenue available to it to supply our customers, sustain our mills, and employees, and dependent communities, and maintain the equity of our shareholders. In this context, we have elected to manufacture all of our private timber domestically and have been faced with the challenge of converting imported raw logs at our western facilities. These extraordinary efforts do not fully replace the volume and quality of timber denied us by removing access to historic federal resources, but will allow us to continue our integrated operation for a period of time.

As an owner of 1,340,000 acres of northwestern timberland, Boise Cascade Corporation is committed to APHIS rules which minimize the possibility of reducing foreign insects and

diseases which could imperil the productivity of our private forests. With that concern in mind, Boise Cascade Corporation has operated its imported Radiata pine project pursuant to the attached Radiata pine compliance agreement. We believe this agreement provides reasonable levels of assurance that log import activities will not encourage introduction of pests which will further complicate the growing and harvesting of timber in the Northwest. One of the major contributions to the public timber gridlock which is now destroying the timber economy in the Northwest is developing federal regulations and plans which are based upon inaccurate, incomplete, and poorly interpreted science. We hope that these hearings will result in a regulatory process being adopted by APHIS which does not similarly gridlock our opportunity to import survival levels of unmanufactured wood products by using the same faulty processes already used by the federal government in attempting to regulate the management of federal forests. The APHIS regulations must be based on sound, existing scientific information, permit a reasonable operating environment, and once developed, be rigidly and completely enforced by those whom the enforcement responsibility is delegated.

Should the committee wish to discuss our experiences in exporting and manufacturing imported unfinished wood products, we'll be pleased to share any data which we may have which would lead to perfecting appropriate regulations concerning this activity.

Please contact R. Kirk Ewart, Boise Cascade Corporation, P.O. Box 50, Boise, ID 83728 (208/384-6522).

RADIATA PINE COMPLIANCE AGREEMENT

BOISE CASCADE CORPORATION
P.O.BOX 100
MEDFORD, OREGON, 97501

MILL LOCATION: BOISE CASCADE CORPORATION
7890 AGATE RD.
WHITE CITY, OREGON, 97503

REGULATED ARTICLES: NEW ZEALAND RADIATA PINE LOGS

7 CFR 319.40-1 THROUGH 319.40-8

BOISE CASCADE CORPORATION agrees to the following:

1. The logs will be kept segregated from other wood articles from the time of discharge from the means of conveyance until the logs are completely processed at the "Boise Cascade Corporation" (BCC) sawmill under the terms of this Compliance Agreement.

2. The logs will be moved from the port of first arrival to the BCC sawmill in as direct a route as reasonably possible. Standard log trucks or "flatbed" trucks fitted with stakes will be used for transport. Route of travel is specified as: Local streets in the Port of Sacramento area to Business 80 west, to Interstate 80 east, to Interstate 5 North. North on Interstate 5 to exit 31 in Medford, Oregon, then on Highway 62 north to the BCC White City mill site in White City, Oregon.

3. The logs will be unloaded and scaled (measured) upon arrival at the BCC White City log yard. After scaling they will be decked separate from all other logs in the BCC log yard in preparation for processing. These logs will be clearly marked with paint and tags to distinguish them from all other logs in the log yard.

4. Each group of logs will be processed within 60 days of release from the port of first arrival. Processing, by log deck, will be confined to specific mill shifts to ensure that all material is accounted for as it is processed.

5. The logs will be processed into lumber in the following manner:

a. Logs will be cut into sawlog lengths. Sawdust from "bucking" will be collected for delivery to Timber Products (TP) for processing into MDF panels.

b. Logs will be placed on head-rig and sawn into lumber of varying sizes. Slabs and side cuts will be chipped and stored for delivery to TP. Sawdust will be collected for shipment to TP.

c. Lumber will be edged and trimmed in the mill. Residue will be chipped and collected for delivery to TP.

d. Lumber will be sorted and stacked prior to placing into dry kilns. Lumber will be dried at temperatures of 180 degrees F for a minimum of 12 hours, reducing the moisture content to approximately 12-14%. All material used in stacking the lumber for the drying process will be subjected to the same temperatures as the treated lumber.

e. All sawdust, wood chips and other by-products generated by sawing or processing the logs (lumber) will be processed into particle board products at the Timber Products Company plant in Medford, Oregon. This material will be transported between BCC and TP in chip vans with the screens and top covered to prevent sawdust or chips from escaping. After unloading, the trailer will be swept free of all chips and sawdust, including exterior surfaces such as bumpers and gate. Processing of the sawdust and chips will occur within 10 days of delivery to TP. The route of travel from the BCC White City plant will be south on highway 62 to Medford, Oregon, then along local streets to the TP Plant at 25 East McAndrews Road, Medford, Oregon, 97501.

6. The logs which are processed into veneer at the BCC White City Veneer Mill will be processed as follows:

a Logs will be cut into peeler lengths at the block saws. Sawdust will be collected for processing by TP.

b. Peeler blocks will be moved into the steam vats for heat treatment prior to peeling. Blocks will be steamed for approximately 8 to 12 hours at 130 degrees F.

c. Blocks will be peeled down to a 4 inch core. Temperatures of the core will be measured to verify that they have been heated to approximately 110 degrees F.

d. Veneer meeting usable quality standards will be transported to the BCC Rogue Valley Plywood mill where it will be dried at temperatures of 360 degrees F. for approximately 10 to 20 minutes. Dried veneer will then be processed into plywood.

e. Veneer not meeting usable quality standards will be chipped and sent to TP for processing.

f. Cores will be chipped and sent to TP for processing.

7. The logs, lumber, veneer, sawdust and chips or other products generated from these logs will be processed in accordance with this agreement within 60 days of the time the logs are released from the port of first arrival.

8. Only regulated articles covered by this agreement will be processed at any one time. All articles, if other than regulated articles, processed during that time will be treated in accordance with the provisions of this agreement. Sanitary practices adequate to assure treatment of practically all the products derived from the logs or lumber shall be used at regular intervals during the processing and at completion of all processing of each shipment under this agreement. Truck beds, loaders, and other components of the transportation system and loading system shall be thoroughly swept out before subsequent contact with non-regulated articles. Sweepings will be heat treated.

9. The inspector will be permitted access to the premises described to monitor compliance with this agreement at all reasonable hours.

10. This agreement may be canceled by the inspector who is supervising its enforcement, orally or in writing, whenever the inspector finds that the Boise Cascade Corporation, its employees or agents, have failed to comply with its conditions. If the cancellation is oral, the decision to cancel this agreement and the reason(s) for cancelling shall be confirmed in writing as promptly as circumstances permit. The BCC White City sawmill may appeal the cancellation i writing to the administrator within ten days after receiving written notification of the cancellation. The appeal shall state all the facts and reasons upon which the company relies to show that the compliance agreement was wrongfully canceled. The Administrator shall grant or deny the appeal, in writing, stating the reasons for granting or denying the appeal, as promptly as circumstances permit. If there is a conflict as to any material fact, a hearing shall be held to resolve the conflict. Rules of practice concerning the hearing shall be adopted by the Administrator.

BOISE CASCADE CORPORATION

By [signature]
Title Log Buyer
Date Dec. 1, 1989

Affixing of signatures below will validate this agreement which shall remain in effect until cancelled, but may be revised as necessary or revoked for non-compliance.

AGREEMENT NUMBER 04-94

DATE OF AGREEMENT _____

PPQ OFFICIAL:

By _____

Name: Gary G. Smith
Title: Officer in Charge
Address: 657 Federal Building
511 NW Broadway
Portland, OR 97209-3490

STATE AGENCY OFFICIAL:

By B. D. Wright

Name: Bill D. Wright
Title: Division Administrator
Address: Plant Division
Oregon Department of Agriculture
635 Capitol Street NE
Salem, OR 97310-0110

Amends paragraph 5(d), page 2 Compliance Agreement 04-94 to read as follows.

Lumber will be sorted and stacked prior to placing into dry kilns. 'The kiln drying process must raise the temperature at the center of each treated article to at least 56°C and maintain the treated articles at that center temperature for at least 30 minutes.'

Specifically, the lumber will be dried at temperatures of 180°F for a minimum of 12 hours, reducing the moisture content to approximately 12-14%. All materials used in stacking the lumber for the drying process will be subjected to the same temperatures as the treated lumber.

Boise Cascade Corporation

Signature	Title	Date
[illegible]	Log Buyer	12/15/93

Oregon Department of Agriculture

Signature	Title	Date
B. D. Wright	Administrator	12/9/93

USDA, APHIS, PPQ

Signature	Title	Date
[illegible]	Officer in Charge	12/16/93

****

UNITED STATES DEPARTMENT OF AGRICULTURE
ANIMAL AND PLANT HEALTH INSPECTION SERVICE
PLANT PROTECTION AND QUARANTINE

COMPLIANCE AGREEMENT

1. NAME AND MAILING ADDRESS OF PERSON OR FIRM	2. LOCATION
TIMBER & WOOD PRODUCTS DIVISION BOISE CASCADE CORPORATION PO BOX 100 MEDFORD OREGON 97501 503/776-6666	BOISE CASCADE CORPORATION MILL 7980 AGATE ROAD WHITE CITY OREGON 97503

3. REGULATED ARTICLE(S)
NEW ZEALAND: PINUS RADIATA AND PSEUDOTSUGA MENZIESII DEBARKED LOGS.
CHILE: PINUS RADIATA DEBARKED LOGS.

4. APPLICABLE FEDERAL QUARANTINE(S) OR REGULATIONS
7 CFR 319.40 AND 7 CFR 330.100

6. *I/We agree to the following:*
SEE ATTACHED*

7. SIGNATURE	8. TITLE	9. DATE SIGNED
JOHN GRIMM	LOG BUYER WESTERN OREGON AREA	12/15/1993

The affixing of the signatures below will validate this agreement which shall remain in effect until cancelled, but may be revised as necessary or revoked for noncompliance.

10. AGREEMENT NO 04-94
11. DATE OF AGREEMENT DEC 16 1993

12. PPQ OFFICIAL (Name and Title)	13. ADDRESS
GARY G. SMITH, OFFICER IN CHARGE	USDA-APHIS-PPQ 657 FEDERAL BUILDING 511 NW BROADWAY PORTLAND, OR 97209-3490
14. SIGNATURE	
15. STATE AGENCY OFFICIAL (Name and Title)	16. ADDRESS
BILL D. WRIGHT DIVISION ADMINISTRATOR	PLANT DIVISION OREGON DEPARTMENT OF AGRICULTURE 635 CAPITOL STREET NE SALEM, OR 97310-0110
17. SIGNATURE	

PPQ FORM 519
(AUG 77)

United States Department of Agriculture
Animal and Plant Health Inspection Service
Plant Protection and Quarantine
657 Federal Building
511 NW Broadway
Portland, OR 97209-3490

February 11, 1994

John Grimm, Log Buyer
Boise Cascade Corporation
P. O. Box 100
Medford, OR 97501

Dear Mr. Grimm:

As requested, this letter amends USDA, APHIS Compliance Agreement 04-94, with Boise Cascade Corporation's White City, Oregon mill.

Paragraph 2. of this agreement is hereby amended to allow transport of the logs from west Sacramento, California to the mill site in White City, Oregon by means of railroad cars.

As a condition of this amendment, the logs are to be moved only in "gondola" type railroad cars with solid sidewalls and bottoms. The train schedule and route must be as outlined in your letter of request dated February 2, 1994, with accompanying documents from Southern Pacific Lines. Any deviation from this route will require separate approval.

Sincerely,

Gary O. Smith
Officer in Charge

cc: BD Wright, Administrator, ODA, Plant Division

Timber and Wood Products Division

Boise Cascade

Western Oregon Area
P.O. Box 100
Medford, Oregon 97501
503/776-6666

February 2, 1994

Mr. Gary Smith
USDA-APHIS-PPQ
657 Federal Building
511 NW Broadway
Portland, OR 97209-3490

Mr. Smith:

This letter is to request that Boise Cascade Corporation's (BCC) Compliance Agreement 04-94, covering the utilization of Radiata Pine logs from New Zealand and chile, be amended to include the use of railroad cars for the movement of logs from the Port of First Arrival, (West Sacramento, California) to BCC's White City sawmill in White City, Oregon. All other terms of the agreement would remain the same.

I have included for your information, a letter from Southern Pacific's representative Donna Gault, explaining the route and schedule that the trains would use for this movement, as well as a route map.

The railcars that we would use are "gondolas". The cars have solid sidewalls and bottoms, but the top is not covered or enclosed.

I have discussed this request with Dorthea Zadig of the California Pest Exclusion office and Mr. Bill Wright of the Oregon State Department of Agriculture. No decisions were reached during these discussions, pending confirmation of the haul route and schedule, which is included in this mailing. Once the cars are delivered to Medford they are switched to a local service compound that will take them to BCC White City. This movement would involve a 24-hour layover in the Medford switch yard.

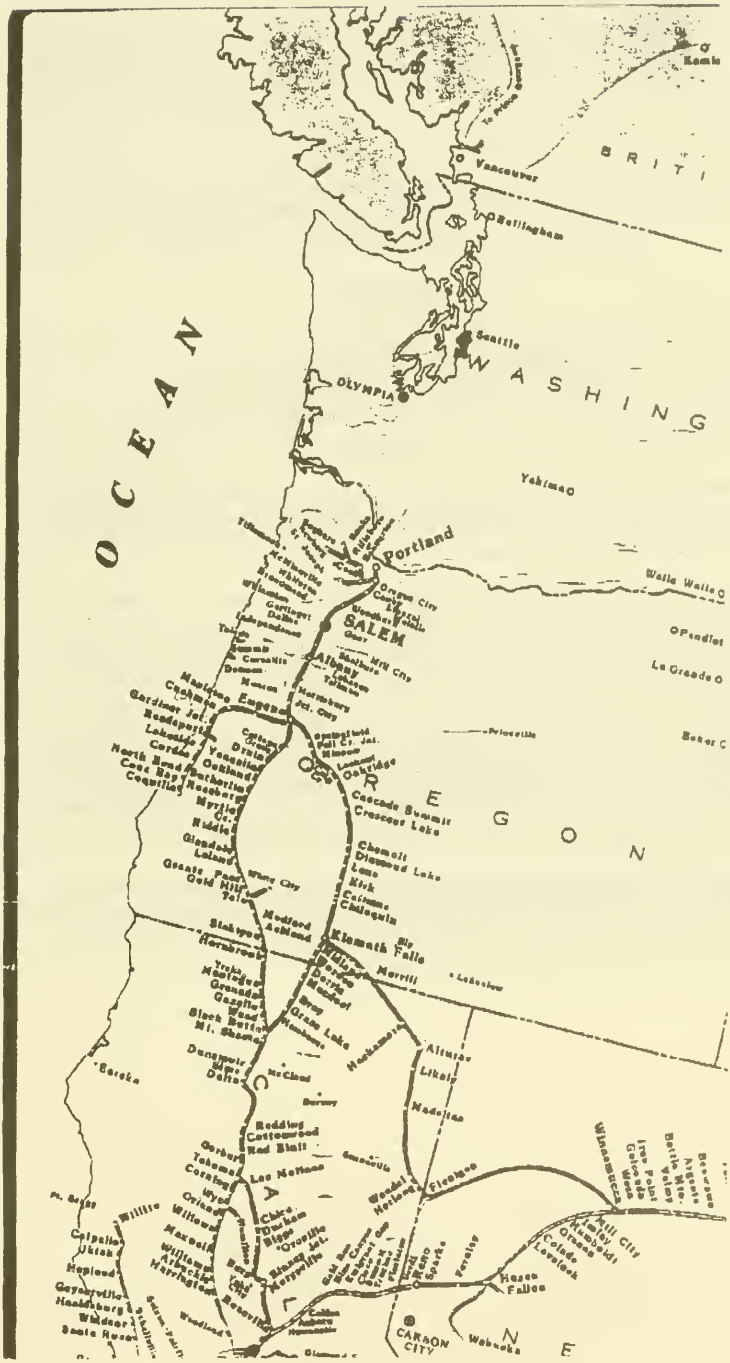
If you have any questions, please give me a call at my office (503) 776-6601. Mrs. Gault would be happy to answer any questions about the railroad system that you may have. Her office number if on her letter.

Thank you for your consideration in this matter.

Sincerely,

for John Grimm
Log Buyer

JG:vm
enclosure
cc: File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Gardiner Jct.
Reedsport
Lakeside
North Bend
Coos Bay
Coquille
Oakland
Yoncalla
Drain
Cottage Grove
Oakridge
Cascade Summit
Crescent Lake
Chemult
Diamond Lake
Kirk
Chiloquin
OREGON
Roseburg
Myrtle Cr.
Riddle
Glendale
Leland
Grants Pass
Gold Hill
White City
Medford
Ashland
Klamath Falls
Merrill
Lakeview
Hornbrook
Yreka
Montague
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Gazelle
Weed
Black Butte
Mt. Shasta
Dunsmuir
Delta
McCloud
Eureka
Grass Lake
Alturas
Likely
Madeline
Redding
Cottonwood
Red Bluff
Gerber
Tehama
Corning
Los Molinos
Orland
Willows
Chico
Durham
Biggs
Oroville
Maxwell
Williams
Arbuckle
Marysville
Yuba City
Roseville
Woodland
Willits
Ukiah
Hopland
Geyserville
Healdsburg
Windsor
Santa Rosa
Colfax
Auburn
Reno
Sparks
Hazen
Fallon
Wabuska
Lovelock
Oreana
Humboldt
Imlay
Mill City
Winnemucca
Iron Point
Golconda
Battle Mtn.
Valmy
Argenta
Beowawe
CARSON CITY
NE

Natural Resources
Defense Council

1350 New York Ave., N.W.
Washington, DC 20005
202 783-7800
Fax 202 783-5917

Testimony of the
Natural Resources Defense Council
Regarding
Introductions of Exotic Pests of North American Tree Species

Prepared by
Faith Thompson Campbell, Ph.D.

Submitted to the
Subcommittee on Specialty Crops and Natural Resources
Committee on Agriculture
U.S. House of Representatives

29 June, 1994

The Natural Resources Defense Council (NRDC) congratulates the Subcommittee on Specialty Crops and Natural Resources for holding hearings on the significant threat to North America's forest resources posed by the potential introduction of exotic pests of North American tree species. We ask that this additional material be included in the record of these hearings.

NRDC is a public interest environmental organization with 170,000 members and supporters Nation-wide. We have studied the impacts of exotic tree pests on the economic and ecological values of our forests since 1991. We attach a copy of a recent report, Fading Forests, which summarizes the damage caused by past introductions and the threat posed by new or potential invasive organisms. We ask that, if possible, this report be included in the record.

To date, the damage has been most serious in the East. More than 60% of the 165 million forested acres in the Northeast have been seriously damaged by introduced insects or pathogens (Burkman, *et al.* 1992.). The American chestnut and American elm are now virtually absent from that forest. Butternut, flowering dogwood, and Canadian hemlock are dead in much of their range. In parts of their ranges, oaks and American beech have also suffered reduced populations. Serious ecological impacts are probable from the loss of wildlife food (nuts, berries, and high-calcium leaves), stream-side shade, and soil building properties of these trees.

In the West, the trees suffering the most damage have included some of the white pine group (*Pinus*, subgenus *Strobus*) and the Port-Orford-cedar. Eighty to ninety per cent of the whitebark pine trees in Glacier National Park and the Bob Marshall Wilderness are infected by white pine blister rust (Kendall and Arno 1989.). Whitebark pine seeds are a major food source for the grizzly and black bears, red squirrel, and Clark's nutcracker.

According to Ledig (1992), "Introduction of exotic diseases, insects, mammalian herbivores, and competing vegetation has had the best-documented effects on genetic diversity [of forest ecosystems], reducing both species diversity and intraspecific diversity." Their impact has been greater than that of other, more widely recognized, human-caused factors, including forest fragmentation, changed demographic structure, altered habitat, pollution, and favoring of certain "domesticated" species of trees.

Timber Losses Due to Alien Pests

In the U.S. and Canada, $2 billion in timber revenues has been lost due to tree mortality or morbidity as result of exotic pest infestations (Pimentel 1986). Trees virtually eliminated as timber supplies: chestnut, American elm, butternut or white walnut.

Other Losses

Timber supplies are not the only values associated with trees. The American elm was once the primary ornamental tree in eastern and midwestern cities. The removal of elms killed by Dutch elm disease has cost cities up to an estimated $100 million per year nationwide (Mazzone and Peacock 1985). Nursery owners in the 1950s lost almost $1 million in Port-Orford-cedar nursery stock due to spread of the fungal root disease, not including loss of future sales (Zobel *et al.* 1985). Fraser fir is increasingly popular as a Christmas tree. This species, along with balsam fir and Douglas-fir, make up about thirty-five percent of national market -- which sold more than 35 million trees in 1993 (Grimsley).

Annual sales of maple syrup (made from the sap of the sugar maple) equals nearly $35 million (Anonymous).

Mitigation Costs

Agencies of the U.S. Department of Agriculture spend between $20 and $25 million annually to eradicate or suppress exotic pests or to mitigate their impacts. Port-Orford-cedar has been severely reduced and the U.S. Forest Service is now spending $100,000 per year to manage continued harvests. In 1989, Port-Orford-cedar brought an average price of over $2,600 per thousand board feet (compared to $530 per thousand board feet for Douglas-fir). The value of Expensive pest control, tree improvement breeding, silvicultural controls, and other programs have also been needed to maintain harvest levels of red pine, white pines, and the oaks. These funds are inadequate; threatened trees native to North Carolina which receive little or no funding include the American chestnut, Fraser fir, and Canadian hemlock. The Forest Service is funding a program on butternut, another valuable timber and nut tree almost eliminated from the forests of North Carolina.

In years when new outbreaks are discovered -- such as the discovery of the Asian gypsy moth near Pacific coast port cities in FY1992, funding levels can double (McGovern).

Potential Future Introductions

The losses enumerated above are likely to increase rapidly as a result of additional pest introductions. Such introductions are, unfortunately, likely to occur if American firms greatly increase imports of logs or rough-cut lumber from other temperate regions. Even the rather cursory risk assessments already completed (for Siberia, New Zealand, and Chile) was the best) estimated losses to commercial timber in the west at between $25 million and $58 billion (USDA Forest Service 1991; USDA Forest Service 1992). None of these estimates includes costs associated with loss of jobs, recreational amenities, or ecological values; or losses in parts of the country east of the Rocky Mountains.

RECOMMENDATIONS

The most efficient method of preventing new costly pest introductions -- although never completely effective -- is exclusion: preventing the organism from entering the country. That task belongs to the Animal and Plant Health Inspection Service (APHIS). Quarantines are especially important to forestry because the long period before trees reach maturity slows development of disease-resistant strains (Boyce 1961).

APHIS is now considering promulgation of regulations governing raw wood imports in order to improve control efforts.[1] Unfortunately, the draft regulations are far from adequate. New Zealand provides a model for a more effective exclusion program.

First, the draft regulations would impose few new controls for wood imports from areas other than Siberia. This approach is inadequate because the threat is global: damaging pests can arrive on wood or horticultural products from anywhere, certainly any temperate region. Examples of damaging pests introduced from Europe include Dutch elm disease, the common (or larger) pine shoot beetle (Kucera 1992.), the spruce beetle, and Asian and hybrid gypsy moths.

Second, APHIS must give greater attention to fungi and other pathogens, which appear to pose a greater threat than do most insects.[2]

Third, as one risk assessment makes clear, bark-inhabiting insects often persist on "de-barked" logs, and pests are often transported on dunnage, crates, or pallets (USDA Forest Service 1993).

---

[1]See Federal Register Vol. 59, No. 13 (January 20, 1994).

[2]Examples of introduced diseases which have or are now causing serious decline of species include: Chestnut blight *Crypphonectria parasitica* (Murrill); "Dutch" elm disease *Ceratostomella ulmi* (Buisman); White pine blister rust *Cronartium ribicola* (Fischer); Scleroderris canker *Ascocalyx abietina* (Lagerberg); Dogwood anthracnose *Discula destructiva* (Redlin); beech bark disease *Nectria coccinea* var. *faginata* (Lohman, Watson & Ayers), butternut canker *Sirococcus clavigignenti-juglandacearum*, Port-Orford-Cedar root rot *Phytophthora lateralis* (Tucker & Milbrath). Truly damaging exotic insects do occur; examples include the balsam woolly adelgid, hemlock woolly adelgid, and probably the Asian strain of gypsy moth.

APHIS' draft regulations do not take adequate steps to ensure that pests so transported are found and killed before they can spread to our forests or landscape plantings.

APHIS relies far too much on importers' declarations rather than on inspection and certification by trained phytosanitary officers in the country of origin and in U.S. ports.

Finally, APHIS should institute user fees to cover the cost of implementing these necessary precautions. Introduction of additional damaging tree pests will harm the interests of all who use the forest. Private as well as public forests will be affected. Those who profit from importing raw wood and other materials which may transport forest pests should contribute to the necessary costs of protecting our irreplaceable forests from further harm.

Nor is adequate regulation of raw wood imports sufficient to prevent the introduction of costly pests. The table below lists damaging pests known or suspected to have been introduced on horticultural stock.

EXOTIC PESTS OF TREES PROBABLY INTRODUCED ON NURSERY STOCK

larch casebearer	*Coleophora laricella* (Huebner)
winter moth	*Operophtera brumata* (L.)
beech bark scale	*Cryptococcus fagisuga* Lindinger
balsam woolly adelgid	*Adelges piceae* (Ratzeburg)
chestnut blight	*Cryphonectria parasitica* (Murr.) Barr (= *Endothia parasitica* (Murr.) And. & And.)
white pine blister rust	*Cronartium ribicola* J.C. Fisch.
Port-Orford-Cedar root disease	*Phytophthora lateralis* Tucker & Milbrath
dogwood anthracnose	*Discula destructiva* Redlin

An effective program to curtail imports of new forest pests would include studies by APHIS and Forest Service personnel of virulent diseases and arthropods in their native countries so that they could apply that knowledge to erect barriers to those pests' introduction. Such knowledge would also allow scientists to devise more effective strategies to combat pests when they evade exclusion programs and are introduced (Boyce 1961).

Furthermore, scientists must have sufficient knowledge to respond to those pests which are not considered to be serious problems in the native habitat but which prove devastating once introduced. For example, the Asian fungi that have virtually eliminated the American chestnut and the American elm and are seriously depleting flowering dogwood cause relatively minor damage to the Asian species which are their natural hosts (Lattin; APHIS 1994; dogwood based on oral comment by U.S. nurseryman).

Scientists must also be able to respond when pest organisms evolve more virulent strains. Examples include Dutch elm disease (Burkman, *et al.*; USDA Forest Service 1991), Asian and hybrid gypsy moths, and the pear thrips.

The Natural Resources Defense Council appreciates the interest of the Subcommittee on Specialty Crops and Natural Resources in this important issue which affects all who use or appreciate our forests and tree crops. We look forward to working with the Subcommittee on developing more effective pest-control programs within the Department of Agriculture.

Literature Cited

Anonymous. "Sugar Maples of Northeast Die, the Victims of Years of Acid Rain." The Sunday Oregonian, May 19, 1991. p. A22.

Boyce, J.S. 1961. Forest Pathology, Third Edition, McGraw-Hill Book Company, Inc. New York.

Burkman, W. Q. Chavez, R. Cooke, S. Cox, S. DeLost, T. Luther, M. Mielke, M. Miller-Weeks, F. Peterson, M. Roberts, P. Seve, and D. Twardus. 1993. Northeastern Area Forest Health Report. NA-TP-03-93. United States Department of Agriculture, Forest Service. Northeastern Area State and Private Forestry, Radnor, Pa.

Burkman, William, personal communication to Faith T. Campbell of NRDC.

Grimsley, K.D. They Can't Sell the Forest for the Trees. The Washington Post. December 1994.

Kendall, K.C. and S.F. Arno. 1989. Whitebark pine - an important but endangered wildlife species. In Proceedings - Symposium on Whitebark Pine Ecosystem: Ecology and Management of a High-Mountain Resource. Bozeman, Mt. March 29-31, 1989. Schmidt, W.C. and K.J. McDonald, Compilers. pp. 264-273.

Kucera, D.R. 1992. New introduction, Common pine shoot beetle. Pest Alert, United States Department of Agriculture, Forest Service, Northeastern Area, NA-PR-??-92.

Lattin, J.D. Oregon State University Department of Entomology. Personal communications to F.T. Campbell, July 29 and October 9, 1992.

Ledig, F.T. 1992. Human Impacts on Genetic Diversity in Forest Ecosystems. Oikos 63: 87-108. Copenhagen 1992.

Mazzone, H.M. and J.W. Peacock. 1985. Prospects for control of Dutch elm disease - biological considerations. J. Arboriculture 11: 285-292.

McGovern, T. Operations Officer, Domestic and Emergency Operations. United States Department of Agriculture, Animal and Plant Health Inspection Service. Hyattsville, MD. Personal communication to F.T. Campbell.

Pimentel, D. 1986. "Biological Invasions of Plants and Animals in Agriculture and Forestry". In Mooney, H.A. and J.A. Drake (eds.). Ecology of Biological Invasions of North America and Hawaii. Springer-Verlag. New York.

United States Department of Agriculture, Forest Service. 1991. Pest Risk Assessment of the Importation of Larch from Siberia and the Soviet Far East, Miscellaneous Publication No. 1495, September, 1991.

United States Department of Agriculture, Forest Service. 1992. Pest Risk Assessment of the Importation of *Pinus radiata* and Douglas-fir Logs from New Zealand, Miscellaneous Publication No. 1508, October 1992.

United States Department of Agriculture, Forest Service. 1993. Pest Risk Assessment of the Importation of *Pinus radiata*, *Nothofagus dombeyi*, and *Laurelia philippiana* Logs from Chile. Miscellaneous Publication No. 1517. September 1993. 248 pages.

Zobel, D.B., L.F. Roth, and G.M. Hawk, 1985. Ecology, Pathology, and Management of Port-Orford-Cedar (*Chamaecyparis lawsoniana*). United States Department of Agriculture Forest Service. Pacific Northwest, General Technical Report, PNW-184.

Appendix A

SUMMARY OF STATUTES (LAWS AND TREATIES) GOVERNING INTRODUCTIONS OF ALIEN SPECIES WHICH MAY ATTACK NATIVE TREE SPECIES

APHIS

International Plant Protection Convention (IPPC) (1951)
[Article 14 of the Constitution of the Food and Agriculture Organization of the United Nations] establishes international system under which inspections and quarantines are implemented to prevent dissemination of pests affecting plant resources

Federal Plant Pest Act (1957) [7 U.S.C. §§ 150aa - 150jj]
prohibits knowing importation or interstate transportation (except with a permit issued by the Secretary of Agriculture) of any plant "pest"; "pest" is defined as any living stage of invertebrates, bacteria, fungi, parasitic plants, viruses, infectious substances, etc., "which can directly or indirectly injure or cause disease or damage in <u>any</u> plants or parts thereof, or any processed, manufactured, or other products of plants." [emphasis added]

Organic Act (1944) [7 U.S.C. §§ 147a - 147e]
authorizes the Secretary of Agriculture, alone or in cooperation with the states or local jurisdictions, farmers' associations, governments of Western Hemisphere countries, and international organizations, to detect, eradicate, control, or retard the spread of plant "pests". (See definition of "pest" under the Federal Plant Pest Act, above.)

Plant Quarantine Act (1912) [7 U.S.C. §§ 151 - 164a, 167]
authorizes the Secretary of Agriculture to regulate imports or interstate shipments of nursery stock or other plants and plant parts and propagules when necessary to prevent introduction of injurious plant diseases and insect pests;

Agricultural Quarantine Enforcement Act (1989)
prohibits the shipping of any plant, fruit, vegetable or other matter quarantined by the Department of Agriculture via first-class mail; search warrants required to open packages

FOREST SERVICE

Forest & Rangeland Renewable Resources Research Act (1978) [16 U.S.C. § 1642]
authorizes the Secretary of Agriculture to conduct research and experiments to obtain, analyze, develop, demonstrate, and disseminate scientific information about protecting and managing forests for a multitude of purposes; § 1642(a)(3) specifies protecting vegetation, forest, and rangeland resources from insects, diseases, noxious plants, animals, air pollutants, and other agents

§ 1642(b) requires the Secretary to maintain a current comprehensive survey of the "present and prospective conditions of and requirements for renewable resources of the forests and rangelands . . . and means needed to balance the demand for and supply of these renewable resources, benefits, and uses in meeting the needs of the people of the United States. . . ."

Cooperative Forestry Assistance Act (1978) [16 U.S.C. §§ 2101, 2102, 2104]
§ 2101(a) recognizes that "efforts to prevent and control . . . insects and diseases often require coordinated action by both Federal and non-Federal land managers; . . ."

§ 2102(b) authorizes the Secretary of Agriculture to provide assistance to state foresters to develop and distribute genetically improved tree seeds and to improve management techniques aimed at increasing production of a variety of forest products, including wildlife habitat and water

§ 2104 authorizes the Secretary to protect from insects and diseases trees and wood products in use on National forests or, in cooperation with others, on other lands in the U.S.; such assistance may include surveys and determination and organization of control methods. Programs on non-federal lands can be instituted only with the consent of, and with a contribution of resources from, the owner. The Secretary may also prescribe other conditions for such cooperative efforts.

Executive Order 11987 (1977)
directs federal agencies to restrict the introduction of exotic species into natural ecosystems under their jurisdiction and to encourage states to do the same; directs the Secretaries of Interior and Agriculture to restrict the introduction into any natural system of animals or plants designated as injurious or noxious under the Lacey Act and Federal Noxious Weed Act

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24 June 1994

Representative Charlie Rose, Chairman
Subcommittee on Specialty Crops and
Natural Resources
Room 1301,
Longworth House Office Building,
Washington, DC 20515

Dear Chairman Rose:

I write in regard to APHIS-USDA's proposed regulations governing importation of unprocessed timber.

The proposed regulations are inadequate for the following reasons:

1) They permit logs to leave the port of export carrying disease fungi. Debarking and/or fumigation will not kill fungi inside the logs.

2) They permit logs to be trucked or shipped by rail any distance from the port of import. Instead, they must require wood to be processed within a short distance (e.g. one mile) of port of entry.

3) They permit unprocessed logs to be trucked or shipped by rail through the most vulnerable forests. Currently, logs are being trucked through Coast Range and Cascade Range forests. Regulations must ban shipment of unprocessed logs through forests.

4) They permit unprocessed logs to be shipped uncovered and unprotected. Currently, logs are being trucked uncovered, but coated with fungicide and/or insecticide. However, proposed regulations require neither cover nor protectant.

If unprocessed logs must be imported, they should be heat treated, either immediately prior to departure from the exporting port or immediately upon arrival. All other proposed measures are inadequate to protect our forests from fungal diseases such as those that have destroyed major timber resources in the past.

Clearly, the most prudent action your subcommittee could recommend would be a total ban on the importation of all unprocessed softwood logs.

Sincerely,

William C. Denison,
Prof. Emeritus

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