International Forestry Quarantine Research Group Meeting
Feb 17-19, 2004, Rome

1. Background

In 2000, the North American Forestry Commission (NAFC), Insect and Disease Study Group formed a committee to identify critical research needs in support of NAPPO regulations, specifically the solid wood packaging standard. The efforts of this group turned to analyses of the science supporting the development of the IPPC wood packaging standard, ISPM #15, *Guidelines for wood packaging material in international trade*. The NAFC research committee served as a model for the formation of the International Forest Quarantine Research Group (IFQRG).

The Fourth Interim Commission on Phytosanitary Measures (ICPM-2002) adopted ISPM #15 with the condition that the technical data on treatment be reviewed during the year and reconsidered at the fifth session of the ICPM. At this meeting (2003) the ICPM agreed to refer data from a study on the efficacy of methyl bromide against pine wood nematode provided by the Republic of Korea and China for scientific review by IFQRG. In order to address this and other issues, the first face-to-face meeting of IFQRG was convened in Rome, February 17-19, 2004.

The purpose of the Rome meeting was to:

1. Review the terms of reference and organizational structure of the group.
2. Determine communication, document review and communication processes.
3. Establish sub-committees to coordinate IFQRG activities on special topics.
4. Plan international collaborative studies to address specific issues related to ISPM #15.

The meeting held at the FAO (Food and Agriculture Organization) headquarters was attended by 27 delegates from 12 countries (see attached list, Appendix 1).

2. Business

The key meeting outcomes were:

1. Eric Allen (Canada) was chosen as the chair and Hugh Evans (UK) was chosen as the IUFRO liaison.

2. Terms of reference were established (Appendix 2)

3. The focus of IFQRG will, in the short term, be on providing information and research necessary to support ISPM #15. Other forestry quarantine questions (Appendix 3) will be recommended for consideration by the IUFRO working group 7.03.12, *Alien invasive species in international trade*.

4. The IFQRG agreed to review technical data in order to continually improve the existing treatment measures in Annex 1 of ISPM # 15.

5. Draft guidelines for the submission of proposed new treatments under ISPM #15 are being developed including minimum criteria for approval (Appendix 4)

6. The IFQRG website (www.forestry-quarantine.org) will be the primary communication tool for the group. Public front pages will be in Spanish, French and English, providing background, membership and contact information. Confidential documents and discussion for a will be available in MS-Word and .PDF formats, in multiple languages where possible, in a password-protected zone on the website.

7. Sub-committees have been formed to address specific forestry quarantine issues (Appendix 5).

8. An international collaborative experiment was discussed to evaluate the risks associated with bark on treated wood packaging material. A number of aspects were proposed for inclusion in the experiment: reinfestation by insects and fungi after treatment, fumigant penetration through bark, and implications the presence of bark related to non-compliance with the standard. A subcommittee was established to organize this experiment.

Appendix 1 - Participants List, IFQRG Meeting 17-19 February 2004, Rome Italy

Country	Field	Name	Organization / Representing
Australia	Quarantine	Bill Magee	Biosecurity Australia
Australia	Quarantine	Doug Walsh	Biosecurity Australia
Canada	Quarantine	Gord Henry	Canadian Food Inspection Agency
Canada	Science	Eric Allen	Canadian Forest Service
Canada	Science	Hans Ottens	Canadian Forest Service
Chile	Quarantine	Marcos Beeche	Servicio Agricola y Ganadero
China	Quarantine	Wang Yuejin	General Administration of Quality Supervision and Inspection and Quarantine of People's Republic of China - Institute of Animal and Plant Quarantine
EPPO	Quarantine	Andrei Orlinski	European Plant Protection Organization
FAO	Science	Gillian Allard	Forest Resources Development Service, Food and Agriculture Organization (FAO)
Germany	Science	Thomas Schroeder	Federal Biological Research Centre for Agriculture and Forestry
IPPC	Quarantine	Brent Larson	IPPC Secretariat
IPPC	Quarantine	Hiroyuki Tanaka	IPPC Secretariat
Japan	Science	Fusao Kawakami	Yokohama Plant Protection Station, MAFF
Japan	Quarantine	Mitsusada Mizobuchi	Yokohama Plant Protection Station
Korea	Quarantine	Jeong-Eun Ahn	Korean National Plant Quarantine Service
Korea	Quarantine	Jong-Ho Lee	Korean National Plant Quarantine Service
Korea	Science	Yeong-Jin Chung	Korea Forest Research Institute
NZ	Quarantine	Peter Thomson	MAF Forest Biosecurity
UK	Industry	Frank Brooks	British Wood Preserving Association (BWPDA) and Western European Institute for Wood Preservation
UK	Quarantine	Roddie Burgess	UK Forestry Commission
UK	Science	Hugh Evans	UK Forestry Service
USA	Quarantine	Jonathan Jones	USDA Animal and Plant Health Inspection Service
USA	Science	Paul Dunn	USDA Forest Service
USA	Science	Robert Haack	USDA Forest Service
USA	Science	Tom Hofacker	USDA Forest Service
USA	Science	Barbara Illman	USDA Forest Service
USA	Science	Vic Mastro	USDA Animal and Plant Health Inspection Service

Appendix 2. International Forestry Quarantine Research Group
Terms of Reference

1. Mission
The mission of the International Forestry Quarantine Research Group is to provide a mechanism where critical forestry quarantine issues can be addressed through discussion and collaborative research. It serves to bring together scientists and phytosanitary officials to foster multi-disciplinary approaches to forest quarantine-related problems of global significance.

2. Function
The International Forestry Quarantine Research Group serves several main functions:

- Advisory body to the Interim Commission on Phytosanitary Measures (ICPM), Regional Plant Protection Organizations (RPPO), and National Plant Protection Organizations (NPPO) providing scientific analysis and review of global phytosanitary issues and new information
- Forum for the discussion and clarification of key issues related to the phytosanitary implications of global trade.
- Identify and undertake collaborative scientific research aimed at high priority forestry quarantine questions.
- To encourage multilateral discussion about forestry quarantine issues

3. Structure
The International Forestry Quarantine Research Group draws its membership from both the science and phytosanitary regulatory communities around the world. It is endorsed by the ICPM and links to RPPOs through the ICPM. The group is closely affiliated with the IUFRO (International Union of Forest Research Organizations) Alien Invasive Pests Working Group WG 7.03.12.

4. Membership
Membership is open to all interested parties.

5. Decision making
Recommendations on the technical aspects of treatments will be forward to the ICPM for final approval, these recommendations will be reached through consensus and ICPM decisions making procedures will be followed if consensus is unattainable.

6. Coordinating roles and sub-committees

- Chair: The main function of the chair is to provide overall guidance and coordinate the work of the sub-committee chairs.
- IUFRO Liaison will coordinate the interface between IFQRG and the International Union of Forest Research Organizations (IUFRO).
- Sub-committee chairs and members: Several sub-committees were formed to coordinate the work of IFQRG. The sub-committee chairs will oversee the work of the sub-committee and coordinate with the IFQRG chair. Sub-committee members will be experts in their field and carry out the tasks assigned to their sub-committee.

7. Meetings

The International Forestry Quarantine Research Group will meet on an annual basis at FAO headquarters in Rome, Italy. The next meeting is tentatively set for 15 – 17 February 2005.

Appendix 3.

Forestry – Quarantine issues future consideration

- Live plant material /propagative plant material
- Pathway analysis
- Metabolic stress
- Phytosanitary risk analysis
- Monitoring systems for the pest organisms
- Reinfestation

Appendix 4.

Draft Guidelines for the review and acceptance of treatment methods as approved measures under ISPM #15
(currently under review by the Criteria subcommittee)

I. Background

The stated objective of ISPM #15 is to:
"describe(s) globally accepted measures that are approved and that may be applied to wood packaging material by all countries to practically eliminate the risk for most quarantine pests and significantly reduce the risk from a number of other pests that may be associated with that material."

Approved measures are described in the standard as:

> "Any treatment, process, or a combination of these that is significantly effective against most pests should be considered effective in mitigating pest risks associated with wood packaging material used in transport. The choice of a measure for wood packaging material is based on consideration of:
>
> - the range of pests that may be affected
> - the efficacy of the measure
> - the technical and/or commercial feasibility."

Central to these excerpts from ISPM #15 is the concept that a treatment should be "**significantly effective**" against "**most**" pests in order to reduce the risk of introduction and/or spread of quarantine pests associated with wood packaging material (including dunnage), made of coniferous and non-coniferous raw wood, in use in international trade.

The following guidelines should be considered in the development of treatments. Specific requirements might be needed for specific treatments.

1. Range of pests

Although the standard does not provide specific lists of pests, it is implied that approved treatments must control pests of quarantine concern including insects, fungi, nematodes or any other harmful micro-organisms. Treatments must demonstrate control of multiple life stages of wood pests such as eggs, larvae, pupae or adult insects. Consideration should also be made for organisms such as fungi or nematodes that may produce structures that could be resistant to treatment.

2. Efficacy

Approved treatments need to demonstrate through statistically sound methods that undesirable organisms are killed or altered such that they will not reproduce. Efficacy trials for treatments should be carried out in a range of densities in both softwood and hardwood genera in a variety of dimensions (up to 100 mm in diameter) used in international trade. Treatments must demonstrate efficacy against organisms living on or under the bark (e.g. bark beetles, some stain fungi) as well as those living deep in the wood (e.g. ambrosia beetles, wood boring beetles, Siricid wasps, decay fungi, nematodes). Given the broad range of organisms for which data is needed and the time and expense in undertaking efficacy tests, some flexibility must be allowed in accepting test results. Extrapolation across similar groups might be considered.

3. Technical and/or commercial feasibility

It is important that approved treatments be technically and commercially feasible in both developing and developed countries. Treatments should recognize human health and environmental implications and input should be sought from appropriate national and international organizations regarding potential restrictions that could be placed on packing materials treated in certain ways.

Appendix 5. IFQRG Sub-committees

ISPM #15

Review of approved measures:

1. **Heat treatment** (**Hugh Evans (UK)**, Eric Allen (Canada), Barbra Illman (USA), Bill Simpson (USA), Peter Garahn (Canada), Jeong-Eun Ahn (Korea))

2. **Methyl Bromide** (**Al Barak (USA)**,Vic Mastro (USA), Gord Henry (Canada), Wang Yuejin (China), Jong-Ho Lee (Korea), Roddie Burgess (UK), Bill Magee (Australia), Mitsusada Mizobuchi (Japan))

Review of proposed measures, new technologies and information:

1. **Developing criteria for submitting and evaluating proposals for treatments to be included in ISPM No. 15** (**Doug Walsh (Australia)**, Eric Allen (Canada), Hugh Evans (UK))

2. **Chemical Impregnation** (**Frank Brooks (UK),** Wang Yuejin (China), Jeff Morrell, Paul Cooper (Canada), Ron Mack (USA), Doug Walsh (Australia), Thomas Schroeder (Germany), Joran Jermer (Sweden)

3. **Radiation, Microwave** (**Thomas Schroeder (Germany)**, Wang Yuejin (China), Doug Walsh (Australia), Ron Mack (USA), Mary Flemming, (IAEA)

4. **Fumigation and modified atmosphere** (**Vic Mastro (USA)**, Gord Henry (Canada), Wang Yuejin (China), Jong-Ho Lee (Korea), Roddie Burgess (UK), Bill Magee (Australia), Mitsusada Mizobuchi (Japan), Fusao Kawakami (Japan), Al Barak (USA)

5. **Global interception database and information sharing** (**Gord Henry (Canada),** Eric Allen (Canada), Hugh Evans (UK), Bob Haack (USA), Doug Walsh (Australia), Thomas Schroeder (Germany)

6. **Bark infestation experiment** (**Lee Humble (Canada),** Eric Allen (Canada), Hugh Evans (UK), Bob Haack (USA), Doug Walsh (Australia), Thomas Schroeder (Germany), Shane Sela (Canada)

Standard Interpretation

1. **ISPM #15 Interpretation and implementation:** (**Roddie Burgess (UK),** Gordon Henry (Canada), Doug Walsh (Australia), Peter Thomson (New Zealand), Andrei Orlinski (EPPO), Kyu-Ock Yim (Korea) Marcos Beeche (Chile)

   Topics for discussion:
   - Terms: recycle-remanufatcure
   - Re-treatment, recertification