REPORT OF THE FOURTH MEETING INTERNATIONAL FORESTRY QUARANTINE RESEARCH GROUP MEETING (IFQRG)
ROME, ITALY
OCTOBER 2 – 6, 2006

Participants:

Argentina

Mr. Teodoro Stadler
LISAMEN – CRICYT - CONICET
Av. Ruiz leal s/n Parque General San Martin,
cc. 131, m 5502 ira
Mendoza AR
TEL: +54 261 5244047
E-mail: **lpe@lab.cricyt.edu.ar**

Mr. Oscar Voloschin
Diamante 105,
5501 Godoy Cruz,
Mendoza – 5501 AR
TEL: +54 261 4324549
FAX: +54 261 4318703
E-mail: **laboratoriosenco@arnet.com.ar**

Mr. Carlos F. Wuilloud
P.O. Box 131
5500
Mendoza
AR
TEL: +54 2615244011
E-mail: **Wuilloud@lab.cricyt.edu.ar**

Australia

Mr. David Letham
Edmund Barton Building
Kings Ave. Barton
Canberra ACT
TEL: + 612 62725205
FAX: + 612 62723307
E-mail: **david.letham@daff.gov.au**

Belgium

Mr Harry Arijs
Europen Commission
DG SANCO
Rue Belliard 232 – 3/108
Brussels 1040
TEL: +32 2 2987645
FAX:+32 2 969399
E-mail: **harry.arijs@ec.europa.eu**

Mr Peter Grosser
USDA, APHIS, IS
Blvd. du Regent 27
Brussels 1000
TEL:+32 25082645
FAX+32 25110918
E-mail: **Peter.M.Grosser@aphis.usda.gov**

Canada

Dr. Eric Allen
Canadian Forest Service
Natural Resources Canada
Pacific Forestry Centre
506 West Burnside Road
Victoria, British Columbia V8Z 1M5
TEL,: 1 250 363 0674
FAX: 1 250 363 0775
E-mail:**eallen@nrcan.gc.ca**

Mr. Shane Sela
Room 358
506 W. Burnside Road.
Victoria, British Columbia V8Z 1M6
TEL: 1 250 363 3432
FAX: 1 250 363 0775
E-mail: **selas@inspection.gc.ca**

Dr. Adnan Uzunovic
Forintek Canada Corp.
2665 East Mall, Vancouver, B.C. V6T 1W5
TEL: 1 604 222 5729
FAX : 1 604 222 5690
E-mail: **adnan@van.forintek.ca**

Germany

Dr. Thomas Schröder
Federal Biological Research Centre for Agriculture and Forestry
Department for National and International Plant Health
Messeweg 11/12
D-38104
Braunschweig
TEL.: 49 531/299 3381
FAX: 49 531/299 3007
E-mail: **t.schroeder@bba.de**

Italy

Ms. Lucia Piazza
ABRAS SRL
Via Papini, 7
43036 Fidenza Pr
TEL : 39 0524 530313
FAX : 39 0524 335719
E-mail: **servizioclienti@abrasitalia.it** **Italy**

Mr. Luigi Rossetti
ABRAS SRL
Via Papini, 7
43036 Fidenza Pr
TEL : 39 0524 530313
FAX : 39 0524 335719
E-mail: **direzione@abrasitalia.it**

Mr. Valerio Rosito
EMITEC SRL
Via Olivetti, Zona ASI
70056 Molfetta
Bari
E-mail: **v.rosito@emitec.it**

Ms Lucia Zaza
R&D Coordinator
EMITEC SRL
Via Olivetti, Zona ASI
70056 Molfetta
Bari
TEL: +39 080 9900295
FAX: + 39 080 9900295
E-mail**: l.zaza@emitech.it**

Mr Bruno Faraglia
Technical Coordinator
Via XX Settembre, 20
00187 Roma
TEL: +39 06 46656088
FAX:+39 06 4814628
E-mail: **b.faraglia@politecheagricole.it**

Japan

Dr. Fusao Kawakami
Japan Fumigation Technology Association
1-26-6 Taito,
Taito-Ku,
Tokyo 110-0016
TEL: + 81 338336923
FAX: +81 338336925
E-mail: **Kawakami@nikkunkyo.or.jp**

Kyrgyzstan

Dr. Almaz Orozumbekov
Head of lab of Agrobiodiversity and Genetics, Kyrgyz Agrarian University
Bishkek
68.Mederov str. 720005
TEL : +996 312 54 0545
FAX : +996 312 54 0545
Email : **almaz10@yahoo.com**

Lithuania

Mr Vaclovas Kucinskas
Chief Specialist
State Plant Protection Service of Lithuania
Plant Quarantine Division
Kalvariju Str 62
Vilnius
TEL: +370 5 2754353
FAX: +370 5 2752128
E-mail: **vaatku@vaat.lt**

The Netherlands

Mr. Fons Ceelaert
Fédération Européenne des Fabricants de Palettes et Emballages en Bois (FEFPEB)
P.O.Box 90154
5000 LG Tilburg
TEL: +31 135944802
FAX: +31 135944749
E-mail: **F.Ceelaert@wispa.nl**
FEFPEB@wispa.nl

Mr. Frank Faber
Fédération Européenne des Fabricants de Palettes et Emballages en Bois (FEFPEB)
and
Stichting Markering Houten Verpakkingen (SMHV)
Postbus 90154
5000 LG Tilburg
TEL: + 31 135944303
FAX: + 31 135944749
E-mail: **smhv@wispa.nl**

Uganda

Ms Alice Ruhweza
Consultant, Environmental Requirements in Trade
Nema House – Room 315
P.O. Box 22255
Kampala
TEL: +256 752780020
FAX: +256 312271635
E-mail: **aruhweza@hotmail.com**

United Kingdom

Dr. Hugh F Evans
Head of Tree Health Division
Forest Research
Alice Holt Lodge
Farnham
Surrey GU10 4LH UK
TEL: 44 (0)1420 526231 (direct) 44 (0)1420 22255 (switchboard)
FAX: + 44 (0)1420 23650
Work mobile: +44 (0)7899960360
E-mail: **hugh.evans@forestry.gsi.gov.uk**
www.forestry.gov.uk/research

Mr. Roddie Burgess
Forestry Commission GB
Silvan House
231 Corstorphine Road
Edinburgh, Scotland, UK
EH12 7AT
TEL: +44 (0)131-314-6401
FAX: +44(0)131 314 6148
E-mail:
roddie.burgess@forestry.gsi.gov.uk

Mr. Gil Covey
Fédération Européenne des Fabricants de Palettes et Emballages en Bois (FEFPEB)
and United Pallets Limited
Bank Street,
Golborne
Warrington – WA33RN
TEL: +441942711811
FAX: +441942716491
E-mail: **g.covey@unit-pallets.co.uk**

Dr Mike Drinkall
Principal Biologist
Dow Agrosciences
Hitchin, Hertfordshire, SG 5 INH
TEL: +44 14 62457272
Mobile: +44 7802 911445
FAX:+44 1462 426605
E-mail: **mdrinkall@dow.com**

USA

Mr. Thomas Searles
American Lumber Standards Committee
PO BOX 210
Germantown, MD 20875-0210
TEL : 301-972-1700
FAX : 301-540-8004
E-mail: **tsearles@alsc.orgUSA**

Dr. Kelli Hoover
Penn State University
501ASI
University Park,
PA 16802
TEL: 0018148636369
FAX: 0018148653048
E-mail: **kxh25@psu.edu**

Mr. Ron Mack
Commodity Treatment Specialist
USDA-APHIS-PPQ
Pest Survey, Detection and Exclusion Laboratory
Building 1398, W. Truck Rd
Otis ANGB, MA 02542
TEL: +1 508 5639303
FAX: +1 508 5644398
E-mail: **ron.mack@aphis.usda.gov**

Dr. Barbara L. Illman
Director, Institute for Microbiological and Biochemical Technology
USDA Forest Service, Forest Products Laboratory
Adjunct Professor,
University of Wisconsin
One Gifford Pinchot Drive
Madison, WI 53705
TEL: +1 608 231 9231,
FAX :+1 608 231 9262
E-mail: **billman@wisc.edu**

Mr. William Aley
Regulatory Enforcement
USDA – APHIS-PPQ
4700 River Road
Unit 133,
Riverdale, 20737
USA
TEL: +1 301 734 5057
FAX: + 1 301 734 3225
E-mail: **William.D.Aley@aphis.usda.gov**

Ms Lana Bennett
Director
Forestry & Fishery Products Division
USDA Foreign Agricultural Service
1400 Independence SW
Washington D.C. -20250 – 1047
TEL: + 1 202 720 1296
FAX: + 1 202 720 8461
E-mail: **Lana.Bennett@fas.usda.gov**

Dr. Kerry Britton
USDA Forest Service – Research and Development
1601 N. Kent Street,
RPC-4
Arlington, VA 22209
USA
TEL: +1 703 605 4170
FAX : +1 703 605 5353
E-mail: **kbritton01@fs.fed.us**
kbritton01@fs.fed.us

Mr. John Janowiak
Penn State University
307 Forestry Research Laboratory
University Park, PA 16802
TEL: +1 814 8653916
FAX: + 1 814 8637193
E-mail: **jjj2@psu.edu**

Mr. John McDaniel
American Lumber Standard Committee
P.O.Box 210
Germantown,
Maryland -20875
TEL: +1 3019721700
FAX: +1 3015408004
E-mail: **jmcdaniel@alsc.org**

IPPC

Mr. Brent Larson
IPPC Secretariat
Food and Agriculture Organization of the United Nations**,**
Viale delle Terme di Caracalla
Rome, Italy
TEL: +39 06 5705 4812
FAX: +39 06 5705 6347
E-mail: **Brent.Larson@fao.org**

FAO

Dr. Gillian B. Allard
Forest Resources Division,
Food and Agriculture Organization of the United Nations**,**
Viale delle Terme di Caracalla
Rome, Italy
TEL: +39 06 5705 3373
FAX: +39 06 5705 5137
E-mail: **Gillian.Allard@fao.org**

Summary of Discussion	
Issue 1:	**Terms of Reference**
Consensus:	The terms of reference was circulated. The issue of two membership groups within IFQRG was discussed. A member raised the issue that some developing countries may have difficulty travelling to attend meetings if they are not referred to as sustaining members. The group agreed that the term observer member was not appropriate, but rather the term advisory members should be used. Additionally the text should reflect that the selection of a membership category is self-identified.
Issue 2:	**New forest quarantine economics committee**
Consensus:	Eric Allen, the Chair of IFQRG raised the concept of establishing a committee to review the impacts of economics on scientific issues related to quarantine issues. Members voiced support for this committee. Generally, the committee felt that economics is an important component of quarantine considerations (impacts to environment, impacts of measures, cost/benefit of phytosanitary measures, etc.).
Issue 3:	**Review of action items arising from the 2005 IFQRG meeting.**
Consensus:	Action items were completed. The group discussed the merits of the discussion board on the IFQRG site and this board should continue to be maintained. The members discussed the need to have individuals providing comment to the discussion board identify themselves.
Issue 4:	**Review of the relationship of IFQRG to various IPPC and other organizations.**

	Brent Larson, the Standards Officer for IPPC provided an update on the relationship of IFQRG to IPPC and details on the research/support needs of IPPC. Thomas Schröeder, the Chair of the Technical Panel of Forest Quarantine (TPFQ) summarized the meeting of the TPFQ in June 2005. Larson added that comments are sought on the draft ISPM for the approval of phytosanitary treatments. Larson indicated that the process for approval of treatments does not currently affect the status of heat treatment and methyl bromide treatment of wood packaging. Larson indicated that specific comments regarding the work of technical panels can be directed to technical panel members or to country representatives to the IPPC. Larson also reported on the plans of the Technical Panel on Diagnostic Protocols. The Panel intends to develop protocols for a number of species; notable to forest quarantine is the development of a protocol for pinewood nematode.
Consensus:	A number of members indicated the current lack of information on the status of implementation of ISPM No. 15 by countries requires rectification to ensure avoidance of trade problems. The members suggested that IFQRG should share with its members their knowledge of websites containing summary information on implementation. Hugh Evans reported on the discussions of the IUFRO Meeting in Poland during the summer of 2006. Meeting delegates were very interested in the plants for planting issues raised by Kerry Britton. Many delegates expressed concern about the potential for plants for planting to spread pests and/or diseases that are currently not identified in quarantine lists. Adnan Uzunovic reported on the International Mycological Congress. The Congress reviewed a number of biodiversity, taxonomical and environmental impacts of various mycological issues. Additionally, during the meeting a number of discussions on insect-fungal relationships were discussed. A number of the talks also focussed on phytosanitary issues. The Conference also discussed the risks associated with the movement of plants for planting.
Issue 5:	**Regional phytosanitary updates**

Consensus:	Shane Sela provided a presentation on NAPPO issues. Kerry Britton provided a presentation on *P. ramorum* in North America. Kerry Britton provided a presentation on a number of new quarantine pest detections in the U.S. Thomas Schröeder provided a review of a recent meeting regarding pinewood nematode in Portugal. Attendees discussed recent information on global issues and national surveys; morphological and molecular methods of identification of PWN; ecology and epidemiology; quarantine issues; tree physiology, resistance and histopathology; biology of PWN and relationships to its cerambycid vectors; control methods. Thomas Schröeder also provided a presentation on Asian Long Horned Beetle in Europe. Presentations on *P. ramorum* in Europe, *P. kernoviae* in Europe and in New Zealand were provided by Roddie Burgess and Hugh Evans. David Letham provided a presentation on the guava rust situation in the U.S. and Brazil and the potential risks of this disease to the Eucalyptus forests of Australia. Eric Allen provided an update on mountain pine beetle in Canada.
Issue 6:	**Review of bark information**
Consensus:	The group reviewed current pest incidence information on bark associated with marked wood packaging specifically to respond to the questions posed by the IPPC-TPFQ. The members recognized that there were a number of areas where definitive answers were not available. Members recognized that ISPM No. 15 has reduced the risks associated with the movement of pests on wood packaging moving in international trade. The members felt there were a number of areas where IFQRG could conduct additional research to augment risk information associated with wood packaging. A critical issue that requires further investigation is the need to determine how many of the pests detected are present due to treatment failure versus infestation after treatment. IFQRG produced summary document related to what is currently understood of the risks of bark on ISPM No. 15 marked wood packaging. The current information analysed by IFQRG has been reported in Attachment 1.
Issue 7:	**Additional treatment options available for inclusion in ISPM No. 15**

Consensus:	Microwave/Radio Frequency: Kelli Hoover provided a presentation on microwave testing in the U.S. In general, Hoover indicated that there exists an ability to effectively treat wood in a very short time. The information indicates that it is very likely that based on the cumulative knowledge that achieving 62-65°C measured at the surface of the wood (or through the profile of the wood) is sufficient to match existing requirements under traditional heat treatment or methyl bromide treatment. IFQRG agreed that an expert group of IFQRG should be established to develop a technical summary of the efficacy of microwaves as an additional treatment in accordance with the proposed ISPM for the submission of treatments. Fumigation: Ron Mack provided a summary presentation of the deliberations of the IFQRG fumigation group that met earlier in the week. The group agreed to review the literature available regarding the efficacy of sulfuryl fluoride as an additional treatment in ISPM No. 15. The group should develop a technical summary regarding efficacy of sulfuryl fluoride in accordance with the specifications in the proposed ISPM for the submission of treatments. The group will also be reviewing the Australian information on methyl bromide to determine if further specifications are necessary for methyl bromide. The group also was encouraged by IFQRG to review specifications on methyl bromide recovery and on combining treatments as an option for achieving efficacy sufficient for inclusion of treatments in the proposed ISPM for the submission of treatments. Chemical Impregnation: A report was not provided but IFQRG recommends that chemical impregnation studies continue. The use of chemical impregnation as a combination treatment or on its own may be applicable if supported by data.
Issue 8:	**Review of TPFQ charges to IFQRG**
Consensus:	The group agreed to undertake all of the charges in the TPFQ report. Action items were identified for a number of expert groups within IFQRG.
Issue 9:	**A review of the concerns related to the international movement of plants for planting**
Consensus:	Kerry Britton outlined the concerns related to the movement and regulation of plants for planting. Given that IPPC principles prevent the regulation of pests not clearly identified by risk analysis as being of regulatory concern, pests that may be of concern to an area are likely to be ignored. As such, the suggestion that was presented that this pathway should be regulated in a manner similar to the wood packaging standard. Essentially controlling the movement of all pests associated and known to be present on the pathway would permit better control of those pests not identified as a risk. Britton proposed that IFQRG could assist by providing technical information on the risks caused by the plants for planting pathway.
Issue 10:	**Water soaking as a potential treatment of wood and forest products**

Consensus:	Eric Allen indicated that water soaking trials done in Canada have shown that this treatment is unlikely to kill a number of pests associated with wood.
Issue 11:	**Review of the proposed changes to ISPM No. 15 revision provided by the TPFQ.**
Consensus:	Many of the proposed changes are specific regulatory issues without scientific concerns. The IFQRG group discussed these issues to some extent. These should be provided directly to the IPPC Technical Panel on Forest Quarantine (IPPC-TPFQ). These issues could also be raised via the electronic discussion board to obtain broader input that could be provided to the IPPC-TPFQ.
Issue 12:	**Heat treatment evaluation device**
Consensus:	A presentation by Teodoro Stadler on a device that could be used to evaluate the efficacy of heat treatments was presented. The device has potential for both validating the application of treatment and for verifying treatment operations. Members indicated that its greatest potential was likely in the evaluation of heat chambers.

Next Steps		
Responsible Person	**Action**	**Date**
Evans	Develop a summary of information on bark suitability over time in relation to infestation after treatment	November 15, 2006
Illman/Mack/Hoover /Ormsby/Uzunovic	Develop protocols for microwave and radio frequencies and fumigation to standardize approaches for efficacy testing	March 1, 2007
Burgess/Hoover /Emitech	Develop a technical summary of the efficacy of microwaves for inclusion in ISPM No. 15 in accordance with the proposed ISPM on the submission of treatments.	January 31, 2007
Mack/Barak/Kawakami /Drinkall/Schröeder	Develop a technical summary regarding efficacy of sulfuryl fluoride in accordance with the specifications in the proposed ISPM for the submission of treatments	January 31, 2007
Mack/Barak/Kawakami	Determine and report back to IFQRG, if further specifications are necessary for methyl bromide treatment in ISPM No. 15 based on information supplied by Australia	By next IFQRG meeting

Next Steps		
Responsible Person	**Action**	**Date**
Humble/Evans /Schröeder/Haack	Produce a document outlining scientific knowledge on the size of bark required for pests to complete their life cycle, which will help in identifying the risks from bark	January 31, 2007
Mack/Barak/Kawakami/ Schröeder **Burgess/Hoover /Emitech**	Consider the need to draft practical guidelines on best practices for ISPM No. 15 treatments (efficacy, human health and safety and environmental considerations).	March 1, 2007
Mack/Illman/Stirling	Produce a bibliography of references and some explanatory text on the efficacy of the fumigation.	By next IFQRG Meeting
Allen/Evans/Illman	Produce a bibliography of references and some explanatory text on the efficacy of the heat treatment.	March 1, 2007
Illman/Grosser/Burgess /Ruhweza/Stadler	Group to consider and develop processes for finding enabling funding for the participation of more developing countries.	March 1, 2007
Searles	Provide to the IPPC-TPFQ information on the support for standardized marking and any information on applying marks to wood of varying sizes (including to very small pieces of wood).	March 1, 2007
Britton/ Ruhweza/Evans/Callan/ Allard/Wingfield	Draft a white paper on the biological characteristics that make certain organisms more aggressive for movement on the plants for planting pathway and for establishment in new areas.	March 1, 2007
Britton/Evans/Allen /Sela/Haack	Develop a protocol for testing to determine how many of the pests detected on marked wood packaging are present due to treatment failure versus infestation after treatment.	March 1, 2007
Sela/Evans/Garrahan /Schröeder/Stadler	Produce an explanatory document on heat treatment, including how to build a heat treatment facility and how to oversee and manage it.	March 1, 2007

Next Meeting

Location:	Rome, Italy
Date:	September 10-14, 2007 (Tentative)

ATTACHMENT 1

IFQRG's Review of the Bark on Treated Wood Packaging Questions Posed by the IPPC Technical Panel on Forest Quarantine

Monday, November 22, 2010

The following responses are based on information currently provided to IFQRG. Additional studies are being conducted by other countries and agencies. This may add to the existing information.

None of these questions should be reviewed solely without consideration for the other questions in the report.

1. What is the incidence of infested bark on treated WP?

Surveys in 2006 were conducted of ISPM-15 marked WP by the U.S. and European phytosanitary authorities. These surveys used different criteria for assessing bark presence. The surveys did indicate that infestation of marked wood packaging is rare. Surveys were also undertaken by authorized agencies of the US national plant protection organization (American Lumber Standard Committee and its authorized agencies).

The U.S. port survey found 9.4% of 5945 units of ISPM-15 marked WP had bark. 1.2% of ISPM-15 marked WP with bark had live insects (in every case these non-compliances originated from a single country). Thus, 0.1% of all ISPM-15 marked WP had live insects. Insects were only found on pieces of wood with bark.

An inspection of wood packaging being produced in accredited wood packaging production facilities in the U.S. found that 20.1% of 2681 units of certified wood packaging had bark. Of this none of the wood packaging had insects in the wood and 0.2% had insects on the wood or free living nematodes associated with the wood.

The EU survey examined wood packaging with pieces of bark > 45 cm^2 and found 3.4% of 1470 units of marked WP with bark had live insects or nematodes originating from six countries.

The cumulative evidence from tests carried out in the past several years indicates that some ISPM No.15 marked wood packaging with bark does transports live organisms, including insects, fungi, and nematodes regardless of its marking with ISPM No. 15 at the time of entry inspection. This transport of pests results from:

i. Problems with treatment (either unsuccessful treatment or failure to treat).
ii. Infestation after treatment.

2. What types of organisms infest marked (treated) wood with bark?

Experiments conducted in 2004/05 on treated wood, designed to ensure that wood was exposed to pest attack, demonstrated that bark beetles and wood borers can infest wood after ISPM-15 treatment.

Surveys of wood packaging in service in 2006 found Cerambycids, Scolytids, Bostrichids, fungi and nematodes associated with bark, but these could be the result of either problems with treatment, or infestation after treatment.

3. Do insects that infest bark stay with WP?

Controlled experiments in 2004/5 by Schröeder, showed that some adult bark beetles emerge to search for new substrates up to six weeks after first boring into bark. This behaviour has been observed in many species of bark beetles. Data from 2004/5 indicate that, with sufficient sizes and shape of bark, insects can complete their life cycle in treated wood which became infested after treatment.

4. Are there different risks associated with different types of WP?

The 2006 US port survey data did not demonstrate a difference in the incidence of bark associated with the different types of marked wood inspected.

In the 2006 EU port survey, 38 out of 50 pest findings were found on marked dunnage.

5. Does the relationship of pests and marked wood packaging with bark change over time?

Suitability generally declines over time. The insects most commonly associated with wood packaging with bark, Cerambycids, Scolytids, and Buprestids, prefer fresh bark. The UK study of 2005 found treated WP was suitable for bark beetle egg laying for up to 3 months.

6. What are the risks associated with the size of bark pieces on treated wood?

The studies on temperate wood species carried out by Evans, Haack, Humble and Schröeder in 2005 indicated that pests were generally more prevalent on increasing sizes of bark on treated wood. Generally, these studies suggested that below a size of 45 cm^2 of bark, pests were less likely to be present. However, this value is subject to variations in the size and shape of the bark, principally (i.e. a narrow but long strip greater than 45 cm^2 is less likely to support infestation than a wider piece of the same area). Other factors can also affect the suitability of the bark to colonization by pests.

7. Are system failures responsible for some of the incidences of pests on wood packaging with bark?

The studies done in 2006 demonstrated rare instances of pests associated with wood packaging with bark. However, the fact that live insects were found on marked wood packaging with bark from relatively few countries and that apparently some pests were present prior to manufacture indicates failure in some cases to assure proper treatment and are representative of non-compliance.