

## IRG DOCUMENTS 1993

### Section 1 Biology

IRG/WP 93-10001

The dry rot fungus and other fungi in houses. Part 2  
J Bech-Andersen

IRG/WP 93-10002

The true dry rot fungus *Serpula lacrymans* found in the wild in the forests of the Himalayas  
J Bech-Andersen, S A Elborne, F Goldie, J Singh, S Singh, B Walker

IRG/WP 93-10003

Log fumigation prevents enzyme-mediated sapwood discolorations in hardwoods  
E L Schmidt, T L Amburgey

IRG/WP 93-10004

Production of monoclonal antibodies to *Serpula lacrymans* and their application in immunodetection systems  
H Glancy, J W Palfreyman

IRG/WP 93-10005

Laboratory evaluation of copper naphthenate pressure treatments against the Formosan subterranean termite  
J K Grace, R T Yamamoto, P E Laks

IRG/WP 93-10006

Sequential exposure of borate treated Douglas-fir to multiple Formosan subterranean termite colonies in a 40-week field test  
J K Grace, R T Yamamoto

IRG/WP 93-10007

Ultrastructural aspects of bacterial attacks on an archaeological wood  
Y S Kim, A Singh

IRG/WP 93-10008

Iron promotes decay capacity of *Serpula lacrymans*  
L M Paajanen

IRG/WP 93-10009

Fungal defacement of water-stored softwoods  
M A Powell, R A Eaton

IRG/WP 93-10010

Distribution of the three symbiotic protozoa in Formosan subterranean termite, *Coptotermes formosanus* Shiraki (*Isoptera: Rhinotermitidae*)  
T Yoshimura, K Tsunoda, M Takahashi

IRG/WP 93-10011

Microscopic characteristics of microbial attacks of CCA-treated radiata pine wood  
A P Singh, R N Wakeling

IRG/WP 93-10012

A below-ground exposure method for determining the resistance of woody and non-woody materials to attack by subterranean termites

M Lenz

IRG/WP 93-10013

Establishing standard principles for laboratory bioassays of termiticides with subterranean termites- progress, problems and prospects

M Lenz, J W Creffield, Z Yun-hong, L R Miller

IRG/WP 93-10014

Protection of buildings, other structures and materials in ground contact from attack by subterranean termites with a physical barrier- a fine mesh of high grade stainless steel

M Lenz, S Runko

IRG/WP 93-10015

Assessment of dehydrogenase activity, fluoride content and total chromium content of soil profiles exposed to preservative treated wood within a model system

G M Smith, D C R Sinclair, A Bruce, H J Staines

IRG/WP 93-10016

Premature failure of CCA treated vineyard posts from brown rot

R N Wakeling, A P Singh

IRG/WP 93-10017

Detoxification of methylene bithiocyanate by bacteria isolated from freshly felled, anti-sapstain treated timber

R J Wallace, R A Eaton, G R Williams

IRG/WP 93-10018

Microscopic characteristics of *Pinus radiata* wood veneers weathered outdoors for one year

A P Singh, R A B Sweeney, E A Dunningham, D V Plackett

IRG/WP 93-10019

Organic nitrogen in wood: growth substrates for a sapstain fungus

L D Abraham, C Breuil

IRG/WP 93-10020

Isolation and identification of non-decay fungi affecting the performance of alkylammonium compounds

A K Doyle, J N R Ruddick

IRG/WP 93-10021

Destruction of wood and mangrove vegetation by marine borers in Goutami-Godavari estuary, east coast of India

K S Rao, L N Santhakumaran, M Balaji, V V Srinivasan

IRG/WP 93-10022

Field studies investigating the efficacy of biological treatments in preventing decay of freshly-felled pine

M W Schoeman, D J Dickinson

IRG/WP 93-10023

Computer-assisted ranking of potential biocontrol fungi based on data from laboratory screening trials

M W Schoeman, D J Dickinson

IRG/WP 93-10024

Controlling the sapstain fungus *Ceratocystis coerulescens* by metabolites obtained from *Bierkandera adusta* and *Talaromyces flavus*  
S C Croan, T L Highley

IRG/WP 93-10025

Biosynthesis of  $\beta$ -Glucan microfibrils by cellular fractions from brown-rot fungus *Postia placenta* (MAD-698 and ME-20) and White-rot fungus *Schizophyllum commune* (MAD-619)  
S C Croan, T L Highley

IRG/WP 93-10026

Aggressiveness of *Reticulitermes* species in laboratory tests  
H Hertel, S Pantos, D Rudolph

IRG/WP 93-10027

Antagonistic effect of *Trichoderma* spp. against basidiospores  
U Srinivasan, T L Highley, S C Croan, A Bruce

IRG/WP 93-10028

The role of oxalic acid in short fiber formation by the brown-rot fungus *Postia placenta*  
F Green III, J M Hackney, C A Clausen, M J Larsen, T L Highley

IRG/WP 93-10029

Influence of moisture content of rubber wood on the growth of *Botryodiplodia theobromae*  
E J M Florence, R Gnanaharan, J K Sharma

IRG/WP 93-10030

On the effectiveness of fumigants against wood-destroying insects and fungi in wooden cultural property  
W Unger, A Unger

IRG/WP 93-10031

The present classification of wood degradation factors  
J Wazny

IRG/WP 93-10032

Natural resistance of Bamboo (*Bambusa* sp) to marine wood-borers in Goa waters (India)  
L N Santhakumaran, S G Sawant

IRG/WP 93-10033

Water sprinkled pine wood: A microscope study on boards showing streaking  
G Daniel, T Elowson, T Nilsson, A Singh, K Liukko

IRG/WP 93-10034

Using image analysis to rate wood stain trials  
C M Sexton, A G Maristany, C C Brunner, J J Morrell

IRG/WP 93-10035

Blue stain in service on wood surface coatings.  
Part 3: The nutritional capability of *Aureobasidium pullulans* compared to other fungi commonly isolated from wood surface coatings  
P R Sharpe, D J Dickinson

IRG/WP 93-10036

Comparison of two laboratory methods for screening potential anti-sapstain chemicals  
S M Gray, D J Dickinson

IRG/WP 93-10037

Lignicolous marine fungi from panels of different timbers exposed along Goa coast (India)

L N Santhakumaran, S Chinnaraj, S G Sawant

IRG/WP 93-10038

The metabolism and comparative elimination of polychlorinated biphenyl congeners in termites

V S Haritos, J R J French, J T Ahokas

IRG/WP 93-10039

The Status of *Anobium punctatum* and *Hylotrupes bajulus* in buildings in the United Kingdom

R W Berry, R G Lea, D Higham

IRG/WP 93-10040

Assessment of untreated Papua New Guinea timbers against subterranean termites.

Progress Report 2

C Konabe, M Rokova

IRG/WP 93-10041

Assessment of untreated Papua New Guinea timbers against subterranean termites.

Final Report

M Rokova, C Konabe

IRG/WP 93-10042

Programme Section 1

IRG Secretariat

IRG/WP 93-10043

Methodologies for termiticide testing and standardization

N-Y Su

IRG/WP 93-10044

Wood protection by surface treatment of two borate preservatives, TIM-BOR<sup>®</sup> and BORA-CARE<sup>™</sup> for the Formosan subterranean termite and Eastern subterranean termite

M Tokoro, N-Y Su

IRG/WP 93-10045

Oral toxicity of TIM-BOR<sup>®</sup>, BORA-CARE<sup>™</sup>, boric acid and ethylene glycol against the Formosan subterranean termite and the Eastern subterranean termite

M Tokoro, N-Y Su

IRG/WP 93-10046

A collaborative test to determine the efficacy of polyurethane coatings on wood samples exposed in the marine environment. 3rd interim report

R A Eaton

IRG/WP 93-10047

Effects of some essential oils on wood destroying organisms

K Atisongkroh, C Anantachoke, P Lekuthai, S Pensook, T Kittirattrakarn

IRG/WP 93-10048

A comparison of inductively coupled plasma spectroscopy and neutron activation analysis for the determination of cation concentrations in wood

J Jellison, J Connolly, K Smith, W Shortle

IRG/WP 93-10049

Minutes of the meetings of Section 1 held at the 24th Annual Meeting in Orlando, Florida, USA, during 16-21 May 1993  
IRG Secretariat

## Section 2 Test Methodology and Assessment

IRG/WP 93-20001

Screening of wood preservatives: Comparison of the soil block, agar block and agar plate tests  
K Archer, D D Nicholas, T P Schultz

IRG/WP 93-20002

Surface retentions of PCP, TCMTB and MTC obtained during a field trial of antisapstain formulations  
D E Ferlazzo, M D Needham, M J Kennedy

IRG/WP 93-20003

Chemical evaluation of borate treated pine sapwood attacked by the subterranean termite *Coptotermes acinaciformis*  
A R Moffat, B C Peters

IRG/WP 93-20004

A comparative analysis of *Coniophora olivacea* (Fr. ex Pers.) Karst. and *Coniophora puteana* (Schum. ex Fr) Karst. test strains  
J Wazny, L J Cookson

IRG/WP 93-20005

A non-pressure method of protection based on hurdle theory to control the spectrum of internal environmental factors which affect the decay of poles in soil contact  
A A W Baecker

IRG/WP 93-20006

Natural exposure weathering tests: Their role in the assessment of wood preservative efficacy  
G R Williams, J Brown

IRG/WP 93-20007

The performance of wood preservatives in soil-bed soft rot tests  
G R Williams, S Caswell

IRG/WP 93-20008

Supercritical fluid treatment: Effects on bending strength of white spruce heartwood  
S M Smith, J J Morrell, E Sahle-Demessie, K L Levien

IRG/WP 93-20009

Relative merits of laboratory and field tests for assessing wood decay resistance  
T C Scheffer, J J Morrell

IRG/WP 93-20010

Comparison of performance of wood preservatives in laboratory and field tests of treated commodities  
M Hedley

IRG/WP 93-20011

Mapping soft rot decay distribution using image analysis  
P J Wickens, R J Murphy, G F M Watts

IRG/WP 93-20012

Work program of CEN/TC 38 (April 1993) Durability of wood and wood-based products

R Hüb

IRG/WP 93-20013

Soft rot as possible sources of odor in impregnated wood in buildings

J Bjurman, J Kristensson

IRG/WP 93-20014

Programme Section 2

IRG Secretariat

IRG/WP 93-20015

Determination of the preventive efficacy against wood destroying basidiomycetes fungi - ENV 839, CEN/TC 38 WG 9

D Dirol

IRG/WP 93-20016

Kinetic of the wood degradation produced by wood decay fungi

M T Troya, A Navarrete, A Sanchez, V Bucur

IRG/WP 93-20017

Minutes of the meetings of Section 2 held at the 24th Annual Meeting in Orlando, Florida, USA, during 16-21 May 1993

IRG Secretariat

### Section 3 Wood protecting chemicals

IRG/WP 93-30001

Preventive effectiveness of petroleum derivatives against blue-stain fungi (part II)

E Sánchez, M T Troya, A Navarrete, A Guijarro

IRG/WP 93-30002

The efficacy of preservatives into the glue-line of plywood

S Fushiki, T Saito, Y Katuzawa, Y Imamura, S Yasuf, B Subiyanto

IRG/WP 93-30003

Biocidal property of the phenolic fraction of ethanol extractives of *Hopea parviflora* heartwood

R V Krishnan, K S Theagarajan, H S Ananthapadmanabha, M N Sharma, V V Prabhu, H C Nagaveni

IRG/WP 93-30004

A laboratory bioassay on the termiticidal efficacy of a chlorothalonil formulation and a chlorothalonil plus chlorpyrifos formulation to *Mastotermes darwiniensis* Froggatt

J W Creffield, N Chew

IRG/WP 93-30005

An evaluation of the efficacy of a chlorothalonil formulation and a chlorothalonil plus chlorpyrifos formulation in the field

J W Creffield, N Chew

IRG/WP 93-30006

Elimination of alternative explanations for the effect of iron on treated wood

P I Morris, J K Ingram, D L Gent

IRG/WP 93-30007

Fungus cellar and field tests with tall oil derivatives.

Final report after 11 years' testing

J Jermer, Ö Bergman, T Nilsson

IRG/WP 93-30008

Relationship between bond strength and surface characteristics of CCA-treated Douglas-fir

K Yamamoto, J N R Ruddick

IRG/WP 93-30009

A study on the effectiveness of didecyldimethylammonium chloride to protect wood from attack by termites

J W Creffield

IRG/WP 93-30010

Compatibility of deltamethrin with wood-finishing and construction materials

E S Lepage

IRG/WP 93-30011

The effectiveness of deltamethrin against subterranean termites (final report)

P A Zanotto

IRG/WP 93-30012

Technical viability of deltamethrin as a pre-treatment wood preservative

A M F Oliveira, S Milano, J L A Bahia, F Teleginski

IRG/WP 93-30013

FTIR Studies on the weathering of didecyldimethylammonium compound (DDAC) treated wood

R Liu, J N R Ruddick

IRG/WP 93-30014

A new type of biocide suitable for use in different fields of wood preservation

V Barth, H Härtner

IRG/WP 93-30015

Thirty-four year test of on-site preservative treatments to control decay in wood above ground

T L Highley, T C Scheffer

IRG/WP 93-30016

The use of natural and synthetical tannins to improve the dimensional stability and durability of beechwood

(*Fagus sylvatica*)

H Miltz, W J Homan

IRG/WP 93-30017

Ten year field test with a copper-borate ground line treatment for poles

T L Amburgey, M H Freeman

IRG/WP 93-30018

Wood protecting chemicals for the 21st century

H M Barnes

IRG/WP 93-30019

Performance of groundline bandage remedial treatments in western U.S. species transmission poles

P G Forsyth, J J Morrell

IRG/WP 93-30020

Protection of pile tops using combinations of internal treatments and water shedding caps

P Schnieder, M A Newbill, J J Morrell

IRG/WP 93-30021

A study of the efficacy of antisapstain formulations containing triazole fungicides  
R N Wakeling, N P Maynard, R D Narayan

IRG/WP 93-30022

Evaluation of a solid remedial wood preservative containing boron and fluorine  
K J McCarthy, J W Creffield, L J Cookson, H Greaves

IRG/WP 93-30023

A simple leaching procedure for in-plant monitoring of CCA fixation  
P A Cooper, T Ung

IRG/WP 93-30024

Oxidation of wood components during CCA-C fixation  
M Kaldas, P A Cooper

IRG/WP 93-30025

Three-dimensional modeling of fumigant distribution in wood poles  
J Liu, B Goodell

IRG/WP 93-30026

The rate of redistribution and loss of leachable preservatives under service conditions  
R J Orsler, G E Holland

IRG/WP 93-30027

The performance of CCA treatment in bamboo against decay fungi  
O Sulaiman, R J Murphy

IRG/WP 93-30028

Vapour boron treatment of wood based panels: Further studies on mechanical properties  
R Hashim, R J Murphy, D J Dickinson, J M Dinwoodie

IRG/WP 93-30029

Programme Section 3  
IRG Secretariat

IRG/WP 93-30030

Microemulsion formulations for wood protection chemicals  
B Yu, L E Leightley

IRG/WP 93-30031

Compatibility of deltamethrin with wood adhesives  
A M F Oliveira

IRG/WP 93-30032

Minutes of the meetings of Section 3 held at the 24th Annual Meeting in Orlando, Florida, USA, during 16-21  
May 1993  
IRG Secretariat

#### **Section 4 Processes**

IRG/WP 93-40001

Treatment of refractory timbers  
I Dev, S Kumar

IRG/WP 93-40002

Economical schedule for boron treatment of rubber wood: Pilot plant investigations  
R Gnanaharan, T K Dhamodaran

IRG/WP 93-40003

Above ground performance of CCA-treated finger-jointed lumber  
P I Morris, G E Troughton

IRG/WP 93-40004

Performance of non-incised CCA-treated hem-fir decking  
P I Morris, J N R Ruddick

IRG/WP 93-40005

Rubberwood anatomy and its influence on gaseous permeability  
A J Pendlebury, J A Petty

IRG/WP 93-40006

Treatment application method and CCA efficacy in Corsican pine - Assessment by serial exposure and soil burial tests  
P R Newman, R J Murphy

IRG/WP 93-40007

Effect of various preservative treatments on the mechanical and physical properties of plywood  
J van Acker, M Stevens

IRG/WP 93-40008

Effect of fatty acid removal on treatability of Douglas-fir  
S Kumar, J J Morrell

IRG/WP 93-40009

A comparison between high and conventional incision densities for improving preservative treatment of Douglas-fir heartwood lumber  
S T Lebow, J J Morrell

IRG/WP 93-40010

Redistribution of boric acid in radiata pine during drying after preservative treatment  
A J Bergervoet, D R Page, J A Drysdale

IRG/WP 93-40011

Termite physical barriers: is retrofitting with Granitgard an option?  
J R J French, B Ahmed

IRG/WP 93-40012

Heat inactivation of mould fungi on wood  
J Bjurman

IRG/WP 93-40013

Programme Section 4  
IRG Secretariat

IRG/WP 93-40014

Improvement of liquid penetration of wood by precompression under appropriate conditions and recovery process  
I Iida, Y Imamura

IRG/WP 93-40015  
The improvement of wood durability by retification process  
D Dirol, R Guyonnet

IRG/WP 93-40016  
Minutes of the meetings of Section 4 held at the 24th Annual Meeting in Orlando, Florida, USA, during 16-21  
May 1993  
IRG Secretariat

### **Section 5 Environmental aspects**

IRG/WP 93-50001  
Papers presented at 2nd International Symposium "The Challenge - Safety and Environment"

IRG/WP 93-50001 addendum  
Records of the 2nd International Symposium "The Challenge - Safety and Environment"  
IRG Secretariat

IRG/WP 93-50002  
La problématique de l'évaluation environnementale des produits à partir de l'analyse de leur cycle de vie et de leur "écobilan"  
Environmental evaluation of products by life cycle analysis  
G C Landrieu

IRG/WP 93-50003  
Generic code of good practices for wood protection facilities  
G Das, V N P Mathur

IRG/WP 93-50004  
Leaching of CCA components from treated wood under acidic conditions  
J-J Kim, G-H Kim

IRG/WP 93-50005  
The results of detection on CCA components of the soil contacted with CCA treated woods  
K Suzuki, H Sonobe

IRG/WP 93-50006  
Possibility and problems of characterizing treated wood after service with regard to disposal  
A Voß, H Willeitner

IRG/WP 93-50007  
Treatment and recycle of CCA hazardous waste  
E A Pasek, C R McIntyre

IRG/WP 93-50008  
Recycling and disposal of timber treated with waterborne copper based preservatives  
J A Cornfield, S Vollam, P Fardell

IRG/WP 93-50009  
Application of the showertest. Part a: Results from CCA type C treated wood: influence of fixation process  
W J Homan, H Militz, D A Lewis

IRG/WP 93-50010  
Applications of the showertest. Part b: Results from CC and CCB treated wood: influence of fixation process  
W J Homan, H Militz

IRG/WP 93-50011

The use of preservative containing waste wood as substrate for growing greenhouse crops

W J Homan, H Militz

IRG/WP 93-50012

Detoxification of salt impregnated wood by organic acids in a pulp process

I Stephan, H H Nimz, R D Peek

IRG/WP 93- 50013

Leaching from field test stakes. Results from two different methods of analysis

F G Evans, M-L Edlund

IRG/WP 93-50014

The environmental chemistry of chromium: Science vs US law

W H Hartford

IRG/WP 93-50015

Programme Section 5

IRG Secretariat

IRG/WP 93-50016

Developments in the EEC on the regulation of wood preservatives

K Atkinson

IRG/WP 93-50017

Minutes of the meetings of Section 5 held at the 24th Annual Meeting in Orlando, Florida, USA, during 16-21

May 1993

IRG Secretariat

### **Other documents**

IRG/WP 93-60001

Members' and Sponsors' Directory 1993

IRG Secretariat

IRG/WP 93-60002

Abstracts of some papers promised for IRG 24

IRG Secretariat

IRG/WP 93-60003

IRG Documents 1993

IRG Secretariat

IRG/WP 93-60004\*

Draft economic action plan for the IRG for the period 1993-1997

P-E Dickèr

IRG/WP 93-60005\*

Agenda Finance Committee meeting

IRG Secretariat

IRG/WP 93-60006\*

Agenda Executive Council meeting

IRG Secretariat

IRG/WP 93-60007\*

Agenda Scientific Programme Committee  
IRG Secretariat

IRG/WP 93-60008

Agenda 1993 Plenary meeting  
IRG Secretariat

IRG/WP 93-60009\*

Comparison between actual income and expenditure and the budget for 1992  
IRG Secretariat

IRG/WP 93-60010

Annual report 1992  
IRG Secretariat

IRG/WP 93-60011

Budget for 1993  
IRG Secretariat

IRG/WP 93-60012

Budget for 1994  
IRG Secretariat

IRG/WP 93-60013\*

Guidelines for selecting key-note speakers  
IRG Secretariat

IRG/WP 93-60014\*

Proposed nomination procedure for officers of IRG - discussion paper for IRG-EC in Orlando (May 1993)  
A F Bravery

IRG/WP 93-60015\*

A proposal re membership criteria  
A F Preston, A F Bravery

IRG/WP 93-60016

Abstracts of some papers and posters promised for IRG 24  
IRG Secretariat

IRG/WP 93-60017\*

Minutes of the Finance Committee meeting 1993  
IRG Secretariat

IRG/WP 93-60018\*

Minutes of the Executive Council meeting 1993  
IRG Secretariat

IRG/WP 93-60019\*

Minutes of the Scientific Programme Committee meeting 1993  
IRG Secretariat

IRG/WP 93-60020

Minutes of the Plenary meeting 1993  
IRG Secretariat

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