Principles Behind Treatments Recommended in ISPM No. 15

Dr. Barbara Illman
US Forest Service
Forest Products Lab

Dr. Eric Allen
Canadian Forest Service
Natural Resources Canada

Outline

- Goal of ISPM 15 – NIMF 15
- Review of technical details of ISPM 15
- Treatments
  - Heat Treatment
  - Methyl Bromide fumigation
  - Proposed new treatments

Goal of ISPM 15

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- wide range of pests (insects, nematodes, fungi)
- all species of wood (hardwoods, softwoods)
- all sizes of wood
- wood of different moisture contents

Slow the Spread of Invasive Species

ISPM-15

Guidelines for Regulating Wood Packaging Material in International Trade

Regulated Wood Packaging Material

Included:

- pallets
- crating
- packing blocks
- drums
- cases
- load boards
- pallet collars
- skids
- dunnage

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Excluded:

- plywood
- particle board
- oriented strand board
- veneer
- veneer peeler cores
- sawdust
- wood wool
- shavings
- wood < 6 mm thick

Approved Measures

Treatments should be:
“significantly effective against most pests”

- **Proven efficacy (scientifically valid experiments)**
- **Wide range of pests (insects, fungi nematodes)**
- **Technical feasibility**

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<u>HT efficacy</u>

- **80 years of supporting data**
- **1991 study - pinewood nematode, most adult and larval stages of insects killed**
- **2002 study - wide range of decay and stain fungi**

Approved Measures – Heat Treatment

Pros

- wide range of pests
- treatment to core
- low tech
- environmentally friendly
- part of other processing systems

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Cons

- difficult with some wood species
- reinfestation possible
- lack of HT facilities

Approved Measures
Methyl Bromide Fumigation

- Methyl Bromide developed in 1940's
- widely used in agriculture, primarily soil fumigation
- ~ 6% of global use for timber fumigation
- effective against wide range of pests
  - (insects, fungi, nematodes)
- discussions ongoing related to effective schedules

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MBr recognized as ozone depleting substance

Montreal Protocol (1987) requires signatories to reduce and ultimately eliminate MBr use

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- penetration OK for most sizes of wood packaging
- widely available globally
- treat packed trade goods
- low tech

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Methyl Bromide Fumigation

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- wide range of pests
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Cons

- limited future availability – Montreal Protocol
- treatment success highly dependent on temperature, wood moisture
- reinfestation possible

Evaluation of New Measures

- **Other treatments are being considered pending scientifically sound efficacy data**
  - fumigation and modified atmosphere
  - chemical pressure impregnation
  - microwave

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- Research coordinated by International Forestry Quarantine Research Group (IFQRG)
- New treatments recommended for ICPM adoption by the IPPC Forestry Quarantine Technical Panel

Global Implementation Of ISPM-15

Further Information

- http://www.forestry-quarantine.org/ISPM15_e.html
- http://www.aphis.usda.gov/ppq/wpm/export/faq-wpm.html
- http://www.inspection.gc.ca/english/plaveg/for/cwpc/woode.shtml