



# ***Attack of the Killer Bugs!***

A Perspective from a Multi-National Enterprise



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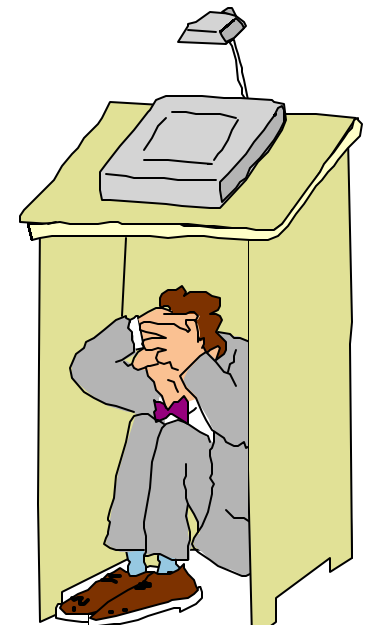
"It is not the strongest nor quickest of the species that survives, but that which is most adaptable to change".

-- Charles Darwin





- Recent history of global pest regulations
- The realities of global logistics
- A look at compliance methods, markings
- Alternative "non-wood" Materials
- Secondary Environmental Impacts
- Key Take Away Messages





# Recent History of Wood Regulations

Exports TO	Imported FROM	Effect. DATE	"Green" Untreated Conifers Softwood	"Green" Untreated Non-Conif. Hardwood	Heat Treated Solid Wood	Fumigated Solid Wood	MWPM or Non-Wood Alternatives	Target Pests*
Australia, N.Zealand	All Imports	1970's	NO	NO	OK	OK	OK?	All Pests
US, UK, Canada	China	12/1998	NO	NO	OK	OK	OK	ALB
China	US, Japan	4/1999	NO	OK	OK	NO	OK	PWN
Brazil	China, Japan, Korea, US, Mex	11/1999	NO	NO	NO	OK	OK	ALB
Finland	China, Japan, Korea, Taiwan, US, Can, Mex	6/2000	NO	OK	OK	OK	OK	PWN
Entire EU, 15 nations	China, Japan, US, Canada	10/2001	NO	OK	OK	OK	OK	PWN
All Exports (Proposed)	All Imports (Proposed)	3/2002?	NO	NO	OK	OK	OK	All Pests

\* ALB = Asian Longhorned Beetle (affects Hardwoods)

\* PWN = Pinewood Nematode (affects Softwoods)



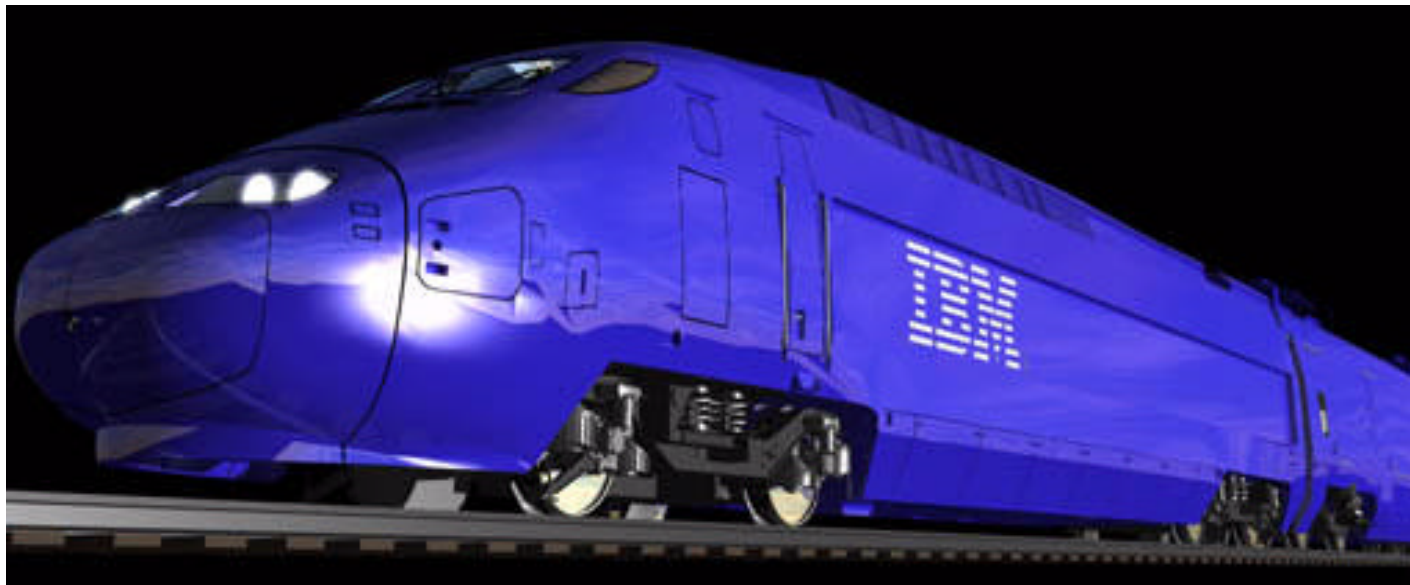


- Recent history of global pest regulations
- The realities of global logistics





- You're global if your customer is global...
- Speed and communication is of the essence
- Simplicity Matters: i.e. "Less is More"
- There is little tolerance for cost increases
- Transit delays also cannot be tolerated





- Use intuitive graphic symbology vs. words

包装材を廃棄する際に分別の参考にして下さい。

本製品に使用される プラスチック製包装材の材質表示	
	緩衝材： >PS<
	すべてのポリ袋： >PE<
	画面保護シート： >PET<

Do you know what this means?

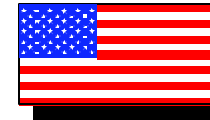
These are words to someone out there.



- Recent history of global pest regulations
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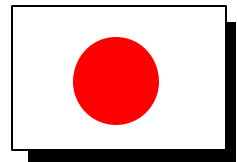


What It's SUPPOSED to look like...



**CPI/C** AUSTIN PALLETS  
TX 75061 US

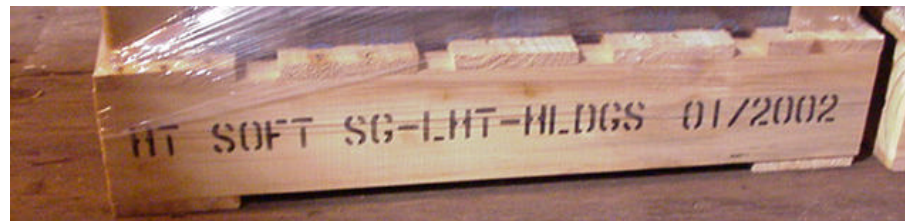
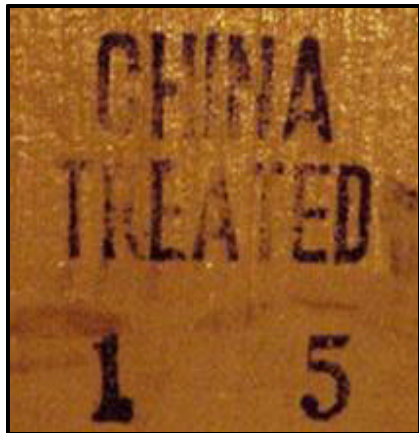
**F** ABC Fumigation  
MD 12345 US

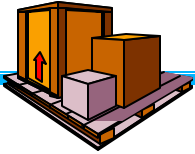


These are just 4 countries. Imagine what 113 will look like?



## What It REALLY looks like...





What It SHOULD look like...

Internationally Accepted Compliance Symbol

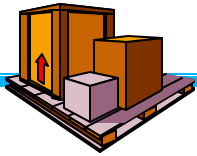
Country of Origin from ISO-3166

Facility Code



Treatment Method

Auditing Agency Logo



# Potential Expansion of Intl. Compliance Markings

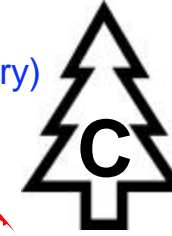
Intl. Compliance Symbol (= "Go")

*Universal "Bug Free" Symbol to Identify Materials Allowable for Export (e.g. "green light" = GO!).*



Species Symbols

(only if laws vary)



( Non-Coniferous ) ( Coniferous )

"No Go" Symbols?



( No Export )

Mandatory Audit Markings

N  
M  
W  
P



**US-000**

**HT** [Ag logo]

Usage Controlled By: Govt. Authorized Grading Agency



**US-000**

**MB** [Ag logo]

Usage Controlled By: Govt. Authorized Fumigation Assoc. (only if FUM is permanent)

HT Symbol?



**56C/30**

**71C/75?**



O  
T  
H  
E  
R

Potential Allowable Markings? (compliant but not regulated)



All PLASTICS: (ref. current SPI symbol and codes)



All PAPER based Materials: (control AFPA)



**MWP**

(or)



**PW**

Usage Controlled By: APA / Engineered Lumber Assoc.



**FIE** (iron)



Usage Controlled By: Steel / Aluminum Industries



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- **Alternative Materials**



**Not Inherently Compliant**

**Inherently Compliant**



~\$8

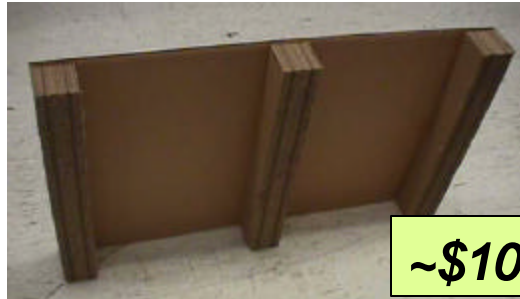
**BAU: Wood, Stringer Style**



~\$9\*

\*HT Price in UK

**BAU: Wood, Block Style**



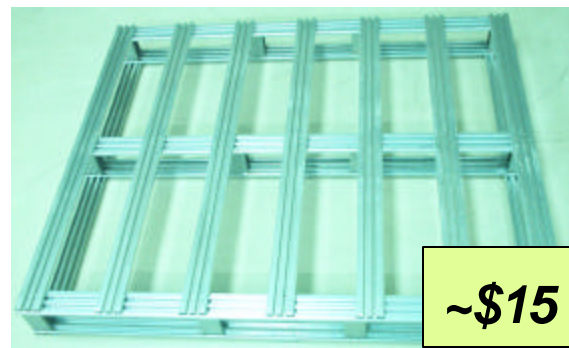
~\$10

**100% Paper, Rackable**



**Slipsheets vs. Pallets**

~\$2



~\$15

**Metals (Steel, Aluminum)**



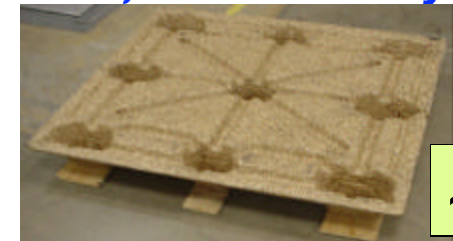
~\$27

**Plywood, Block Style**



~\$40

**Plastic, Cruciform Style**



~\$11

**Presswood, Nestable**









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- Alternative Materials
- **Secondary Environmental Impacts**



Mitigation Method	Pros:	Cons:
<b>Fumigation with Methyl Bromide</b>  <i>Not Approved by IBM</i>	<ul style="list-style-type: none"> <li>• It is an effective "last resort"</li> <li>• It is widely available</li> <li>• Relatively inexpensive (&lt; \$1 per pallet)</li> </ul>	<ul style="list-style-type: none"> <li>• MB is an <u>Ozone Depleter</u></li> <li>• MB is <u>toxic</u> to humans/animals</li> <li>• Trained professionals required</li> <li>• Temp / humidity can affect it</li> <li>• Can add delays of 24 to 48 hours</li> <li>• <u>Govt. Certificate Required</u></li> </ul>
<b>Heat Treatment</b> <i>Achieve minimum core temperature of 56C (133F) for 30 minutes.</i>	<ul style="list-style-type: none"> <li>• No chemicals needed</li> <li>• Reduces the weight</li> <li>• Improves appearance and workability of softwoods</li> <li>• Cost Impact +15%</li> </ul>	<ul style="list-style-type: none"> <li>• Facilities (kilns) are scarce WW</li> <li>• Heat can damage hardwoods</li> <li>• <u>High energy consumption</u></li> <li>• Accepted as permanent but may not be truly permanent.</li> <li>• <u>Govt. Certificate Required</u></li> </ul>
<b>Chemical Pressure Impregnation (CPI)</b> <i>Not Approved by IBM</i>	<ul style="list-style-type: none"> <li>• CPI treatment is permanent (ref: used for Deck Lumber)</li> </ul>	<ul style="list-style-type: none"> <li>• <u>Cannot recycle it or burn it</u></li> <li>• <u>Copper Chromated Arsenate</u></li> <li>• <u>Govt. Certificate Required</u></li> </ul>
<b>Use Non-Solid Wood Packing Materials</b> <i>First Choice if Economically and Environmentally Sound</i>	<ul style="list-style-type: none"> <li>• Materials are naturally inert or become bug free when made.</li> <li>• <b>NO Govt. / APHIS Certificate Req'd!</b></li> </ul>	<ul style="list-style-type: none"> <li>• Costs are <u>+20% to +500%</u></li> <li>• cheaper matls are 1-way only.</li> <li>• Some matls. may be difficult to recycle (ref. OSB, Plywood, Plastics, metals, etc.).</li> </ul>



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**Bottom Line: The medicine tastes really bad!!**



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- Any Change affects the Entire Supply Chain
- "Pipeline" delays for ANY reason are critical
- You're global if your customer is global
- Think Globally, Act Locally (Suppliers & Govt)
- Use symbols to communicate vs. language(s)
- Secondary Env. Impacts are important too
- A globally consistent approach is essential
- Govt. and industry must cooperate to ensure mutual success. This is not Industry vs. Govt.



Thanks for  
your kind  
Attention!



Any Questions?