# **Import Inspection of WPM** New experiences More feasible detection methods used for the Control of WPM

Federal Forest Office – Plant Protection Organization

**Hannes Krehan & Christof Schweiger** 

Austria



# Commission Implementing Decision 2013/92/EU came into force on 1<sup>st</sup> April 2013 amended per Commission Implementing Decision 2015/474/EU

- ➤ This Decision lays down plant health checks and measures to be taken on wood packaging material in use in the transport of certain specified stone commodities originating in China before customs release.
- The aim is to prevent the introduction and spread of harmful organisms, in particular *Anoplophora glabripennis* (Motschulsky).
- only a very few EU Member-States reported interceptions and non compliances
- Austrian inspectors notified about 10% of the inspected consignments
- > Different ways and precision of inspection ???



# Import Checks at approved Places of Inspection

- Austria has no EU first entry point -> all inspections have to be carried out at approved places of inspection
- Strong requirements:
  - Walk in space for inspection
  - Adequate light for inspection
  - Availability of a fork-lift truck with an experienced driver
  - ➤ Adequate space for storage of unloaded pallets
  - Availability of authorized person for opening the container according custom regulations
  - Adequate Space for fumigation treatment in case of non compliance



# WPM Inspections acc. Impl.Dec 2013/92/EU (Periode April - September 2014 CN 6802) all EU-MS

EU Member State	No. of incoming consignments	Inspected Consignments	Harmful Organism + correct ISPM Mark	Missing ISM Mark without harmful organism	Total No. of inspected consignments with non- compliant WPM	Total No. of inspected consignments with compliant WPM	% Inspected (Frequency = 15 % according to 2013/92/EU)
Austria	758	167	16	3	19	148	22
Belgium*	1865	420	0	2	2	418	23
Bulgaria	242	98	0	3	3	95	40
Cyprus	84	20	0	0	0	20	24
Czech Republic	249	61	1	0	1	60	24
Germany	3829	1596	6	7	13	1583	42
Denmark	13	3	0	1	1	2	23
Estonia	29	29	1	4	5	24	100
Spain***	1666	250	0	4	4	228	15
Finland	127	35	0	0	0	35	28
France	567	170	16	2	18	152	30
Greece	No REPORT						
Croatia	58	24	0	2	2	22	41
Hungary	0						
Ireland	451	71	1	0	1	70	16
Italy	731	571	0	4	4	567	78
Lithuania	136	136	0	3	3	133	100
Latvia	23	23	0	2	2	21	100
Luxembourg	6	0					0
Malta	7	5	0	0	0	5	71
The Netherlands	1773	403	5	4	9	394	23
Poland	1173	519	0	0	0	519	44
Portugal	17	4	0	0	0	4	24
Romania	13	13	0	0	0	13	100
Sweden	99	21	0	1	1	20	21
Slovenia**	532	78	0	0	0	78	15
Slovakia	0	17	0	0	0	17	100
United Kingdom	1333	313	0	7	7	306	23
TOTAL	15781	5047	46	49	95	4934	32



# WPM Inspections acc. Impl.Dec 2013/92/EU (Periode April - September 2014 CN 6801) all EU-MS

EU Member State	No. of incoming consignments	Inspected Consignments	Harmful Organism + correct ISPM Mark	Missing ISM Mark without harmful organism	inspected consignments with non-compliant WPM	Total No. of inspected consignments with compliant WPM	% Inspected (Frequency = 15 % according to 2013/92/EU)
Austria	135	31	1	0	1	30	23
Belgium	649	135	0	1	1	134	21
Bulgaria	0						
Cyprus	0						
Czech Republic	22	14	1	0	1	13	64
Germany	2313	928	9	5	14	914	40
Denmark	31	4	0	0	0	4	13
Estonia	39	39	0	1	1	38	100
Spain*	153	23	0	0	0	23	15
Finland	141	48	2	0	2	46	34
France	398	103	6	1	7	96	26
Greece	no REPORT						
Croatia	0						
Hungary	0						
Ireland	84	17	0	0	0	17	20
Italy	116	65	0	3	3	62	56
Lithuania	8	8	0	0	0	8	100
Latvia	0						
Luxembourg	0						
Malta	0						
The Netherland	1233	304	10	8	18	286	25
Poland	43	12	0	0	0	12	28
Portugal	1	1	0	1	1	0	100
Romania	0						
Sweden	253	43	1	0	1	42	17
Slovenia	33	7	0	0	0	7	21
Slovakia	0						
United Kingdom	623	241	0	1	1	240	39
TOTAL Bungesamt für waig	6275	2023	30	21	51	1972	32



List of living stages of wood boring insects detected in WPM from China, in the period 1. 4. 2013 till 31.03.2015 by inspectors of the Austrian Plant Protection Service

Pest	Number
Anoplophora glabripennis (ALB)	10
Trichoferus sp.	16
Apriona germari	2
Callidiini	2
Clytini	1
Aromia sp.	1
Phoracantha sp.	1
Batocera lineolata	1
Unknown species of Cerambycidae	8
Total Cerambycidae	42
Scolytinae / Scolytus sp. (bark beetles, ambrosia beetles)	12
Lyctidae	9
Anobidae	1
Bostrichidae	2
Platipodidae	2
Total wood boring small beetles	26
Buprestidae	1
Cossidae	3
Ciricides (wood wash)	1
Siricidae (wood wasp)	1



#### Apriona germari

Mulberry Longhorn Beetle



Origin: China, India, South-East-Asia

#### Introduction:

2008, 2009 Netherland with WPM????

2012-2014 Austria: several times in WPM

#### Host spectrum:

very polyphagous (70 species), mostly trees, but also herbaceous plants

Morus (Mulberry), Populus, Salix, Malus, Ficus, Ulmus, Betula



#### Apriona germari





Larva: up to 5-6 cm long, without legs, radial black grain on prothorax, produces bigger saw dust and galleries than ALB

Beetle: 3-4 cm, ochre-greenish coloured with black spots (granulates) on the wing basis, striped antennae







# Trichoferus campestris



# Trichoferus campestris

- Origin: China, Korea, Russia
- Introductions:
- 2002, 2006 Kanada: Quebec
- 2008 Kanada: Montreal
- 2009 USA: Illinois
- 2013 Austria: several times in Chin. WPM
- Host spectrum:
- prefers fruit trees, but also wide range of ornamental and forest trees,
- able to develop in very dry wood
- Pest of building timber
- Larva: 3 pairs of short stub legs, whitish torus on the prothorax
- Beetle: 1,3-1,5 cm, brown













cf. Apriona germari



# Apriona germari Mulberry Longhorn Beetle

Further species: *A. japonica A. cinerea* 

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larva and pupa of ALB



Cerambycidae: Trichoferus campestris



Typical symptoms:

- gallery close to the surface, the residual wood layer is thin like a skin
- gallery densely filled with fine saw dust





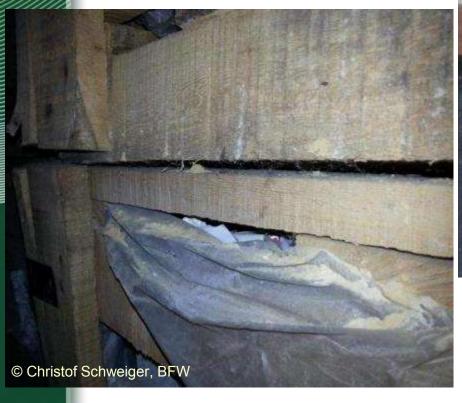
Mostly the middle pole is of less quality and often shows symptoms.

The middle pole can be removed easily for further investigation. The unit will not become unstable.



also Bostrichidae possible

• Sinoxylon sp. Powder post beetles









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also Bostrichidae possible

Sinoxylon sp.





also Bostrichidae possible

 Lyctus africanus









also Bostrichidae possible

Lyctus africanus





also Bostrichidae possible

Lyctus africanus



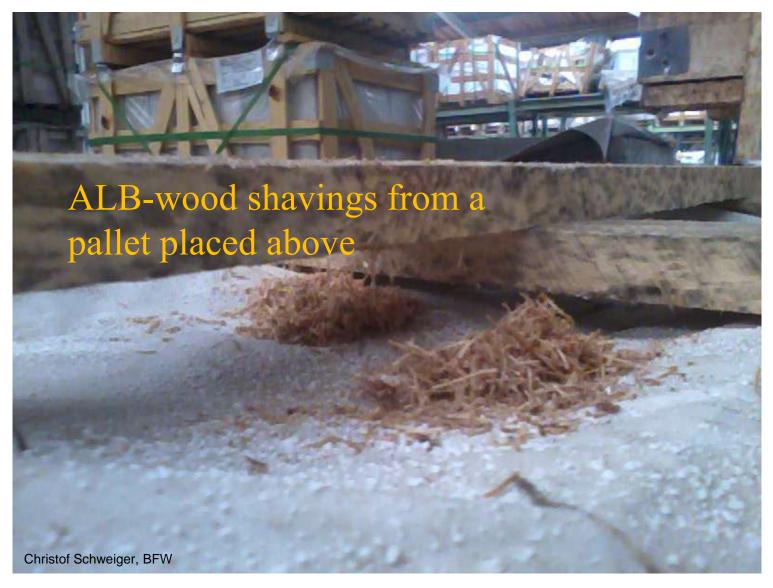


#### OTHER THREATS AND RISKS

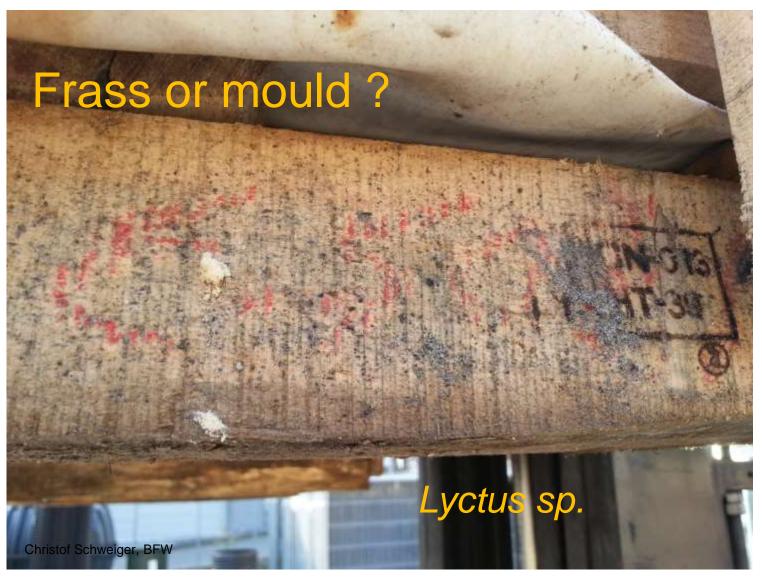
- WPM made of coniferous species from North America and Eastern Asia -> Pine Wood Nematode (Bursaphelenchus xylophilus)
- Problem: no visual symptoms except blue stain fungus if no galleries of Monochamus (vector) present
- blank samples for PWN extraction necessary



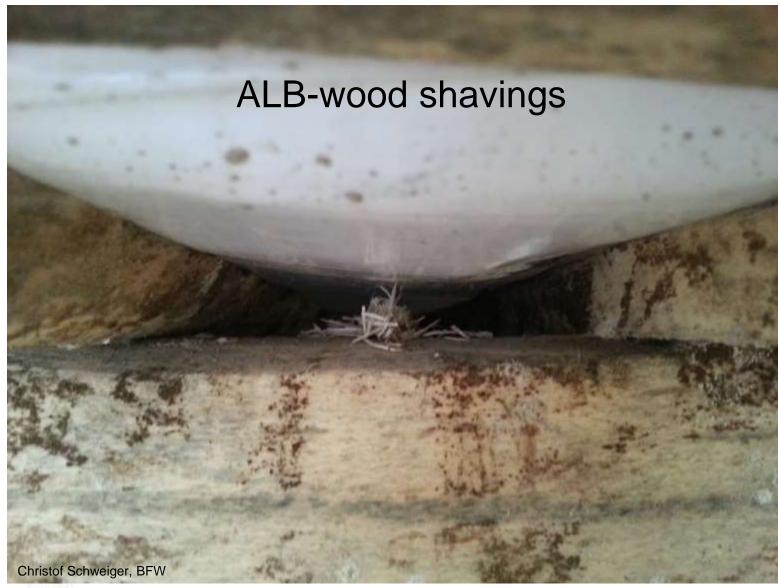




















Lepidoptera: Larvae of a species feeding in decaying wood







Trichoferus campestris







Frass of *Apriona germari* 





Galleries and pupal chamber of Apriona germari







## **Principles**

 The cheaper the consignment the worse the quality of the wood of the pallet

- Increasing price competition
- insufficient or missing treatment of wood
- High risk of introduction of harmful organism



## **Principles**

- Missing knowledge of WPM Producer in China
  - Despite of repeated notifications of non compliances no reaction (improvement)
  - In 90% of cases WPM was marked
  - suspicion: forged IPPC-marking



### **Principles**

- Origin of risk consignments
  - In the first year 2013 mainly from North China (Qingdao, Yantai, Tianjinxingang, Shandong)
  - since 2014 also 30% from South China (Xiamen, Wuhan)



# How to detect risk consignments

- Bill of Lading
- Packing list
- Fumigation certificate



## How to detect risk consignments

- Packing List
  - Wall Panel (Material Code): G359, G654, G603, G350
  - Floor tiles (Material): Bluestone
  - Building stones (MC): G350, G359
  - Border stones (MC): G341, G359, G375
  - Palisade square (MC): G341



# How to detect risk consignments

### IPPC-Marking

- Strong requirements in ISPM 15 standard
- Old marking
- Chinese provinces (33, 35 a.o. South China; 12, 37, 41 a.o. North China)
- New Chinese Marking: CN-37096-HT
  - Hyphen between ISO two letter code and registration number of treating company





#### More feasible detection methods



### Import Inspection

- Special requirements for inspection places
- Use of special trained detection dogs



### Inspection procedure

- ➤ Before opening the container residual gas-measurement (Inspector or representatives of inspection place) e.g. with Dräger Accuro Pump has to be done
- If gas (Methyl bromide) is detected -> container will not be inspected -> warning sticker is placed on the container door





## Danger because of gas inside the container





### Inspection procedure

Every pallet, every WPM unit has to be unloaded and inspected. When the number of cases of non compliance has reached the critical limit, unloading is stopped and a appropriate treatment has to be done.

➤ If inspection is done with detection dogs at least one third of the WPM units has to be unloaded, because dogs are sniffing inside

the container





### **Import-Inspection of WPM**





After residual gas-measurement without positive result the customs seal is broken and the container opened

### **Import-Inspection of WPM**



 Unit by unit is unloaded with fork-lift trucks and presented to the inspector, often 2 fork-lift trucks are working alternating



### Inspection of WPM



The inspector looks carefully at every side and also at the top and to the bottom. The driver of the fork-lift truck lifts the unit to the appropriate height.



### Inspection of WPM





checking of WPM already in the container with detection dogs, if possible (if no residual Methyl Bromide fumigant is present!)



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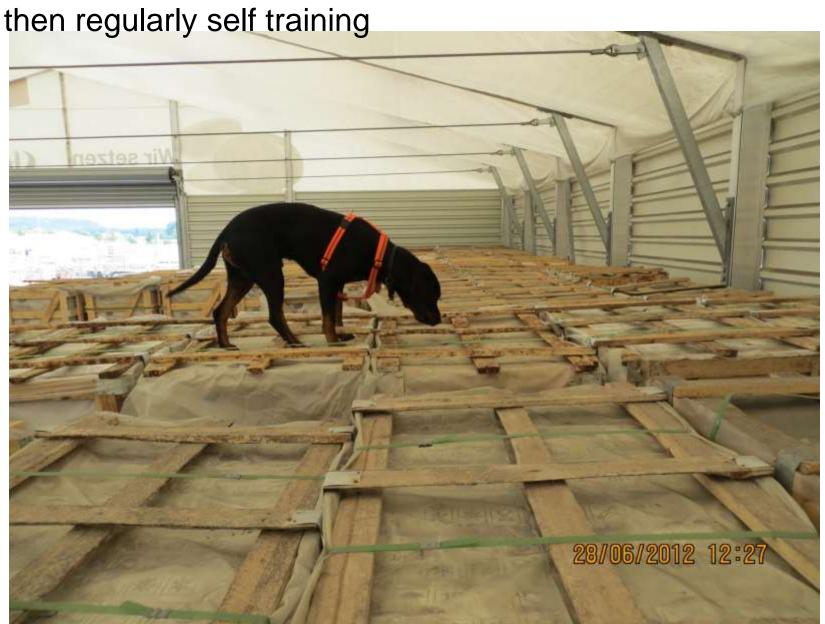
### Anoplophora sniffing dogs monitoring Wood Packaging Material from Asia





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Training of the dogs: two weeks in special training courses;





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