

## TDA-Approved Mitigation and Treatment Measures for the Movement of EAB Regulated Articles from Quarantined Areas

Regulated Article	Mitigation and Treatment Measures
Firewood of all hardwood species	<ul style="list-style-type: none"> <li>• Remove bark and an additional ½ inch of wood<sup>1</sup> or</li> <li>• Kiln sterilization treatment (Table 1) or</li> <li>• Heat treatment at 140°F for 60 minutes<sup>2</sup> or</li> <li>• Fumigation treatment (Table 2) or</li> <li>• Apply another TDA approved method<sup>3</sup>.</li> </ul>
Chips and Mulch of all hardwood species	<ul style="list-style-type: none"> <li>• Chip or mulch to less than one inch in at least two dimensions or</li> <li>• Apply another TDA approved method<sup>3</sup>.</li> </ul>
Nursery Stock of <i>Fraxinus</i> spp.	<ul style="list-style-type: none"> <li>• No ash nursery stock may move into Texas from EAB quarantined areas outside of Texas.</li> <li>• Texas nurseries moving ash out of a quarantined area must be under a compliance agreement with TDA and must treat the nursery stock.</li> </ul>
Green lumber of <i>Fraxinus</i> spp.	<ul style="list-style-type: none"> <li>• Remove bark and an additional ½ inch of wood<sup>1</sup> or</li> <li>• Kiln sterilization treatment (Table 1) or</li> <li>• Fumigation treatment (Table 2) or</li> <li>• Apply another TDA approved method<sup>3</sup>.</li> </ul>
Logs of <i>Fraxinus</i> spp.	<ul style="list-style-type: none"> <li>• Remove bark and an additional ½ inch of wood<sup>1</sup> or</li> <li>• Kiln sterilization treatment for logs &lt;3" dia.(Table 1) or</li> <li>• Heat treatment at 140°F for 60 minutes<sup>2</sup> or</li> <li>• Fumigation treatment (Table 2) or</li> <li>• Apply another TDA approved method<sup>3</sup>.</li> </ul>
Other material including wood waste, living, dead, cut or falling including stumps, roots, branches of <i>Fraxinus</i> spp.	<ul style="list-style-type: none"> <li>• Chip or mulch to less than one inch in at least two dimensions or</li> <li>• Apply another TDA approved method<sup>3</sup>.</li> </ul>
Wood Packing Material <b>containing regulated green lumber, including but not limited to</b> , dunnage, crating, pallets, packing blocks, drums, cases, and skids.	<ul style="list-style-type: none"> <li>• ISPM accredited treatments or</li> <li>• Treatment/mitigations for green lumber of <i>Fraxinus</i> spp. as listed above or</li> <li>• Apply another TDA approved method<sup>3</sup>.</li> </ul>

<sup>1</sup> The bark and wood removed will be regulated separately. If intended for movement outside of the quarantined area, the removed bark and wood must be treated as described for chips and mulch.

<sup>2</sup> Heat treatment procedures may employ steam, hot water, kiln, or any other method that raises the temperature of the center of the wood to at least 140°F and maintains this temperature for at least 60 minutes.

<sup>3</sup> Consult the State Plant Regulatory Official at (512)-463-7660 for other acceptable treatment methods.

## Detailed Treatment Specifications

Table 1. Kiln Sterilization Treatment

Dry bulb temperature (°F)	Wet bulb depression (°F)	Relative humidity (%)	Moisture content (%)	Thickness of lumber (inches)	Treatment Time After Kiln Reaches Conditions (hours)
140	7	82	13.8	1	3
				2	5
				3	7
130	16	60	9.4	1	10
				2	12
				3	14
125	15	61	9.7	1	46
				2	48
				3	50

Table 2. Fumigation Treatment using Methyl Bromide at NAP tarpaulin or chamber

Temperature (°F)	Dosage Rate (lb/1,000 ft <sup>3</sup> )	Minimum Concentration Readings (ounces) at:			
		0.5hr <sup>1</sup>	2 hrs <sup>2</sup>	4 hrs <sup>3</sup>	16 hrs <sup>3</sup>
>70	3	36	30	27	25
40-69	5	60	51	46	42

<sup>1</sup> If the fumigation is conducted in a closed-door container, take the first reading at 1 hour instead of 0.5 hours.

<sup>2</sup> If the fumigation is conducted in a closed-door container, take the second reading at 2.5 hours instead of 2 hours.

<sup>3</sup> If the 4- and 16-hour readings would occur outside of normal working hours, then the fumigation may be extended to a total of 24 hours, instead of 16 hours. In that case, the 24-hr minimum concentration reading would be 25 (for the initial 3-lb dosage), or 42 (for the initial 5-lb dosage).