

BARK BEETLES AND BORERS

EXTERNAL SIGNS AND SYMPTOMS

***PITCH OR SAP FLOW**

Coagulated into “pitch tubes” or “pitch masses” (irregular and rough)
Nodules (smooth balls of pitch or sap)

Dripping or moist patches of bark

- *BORING DUST (note the color: is it dark like bark or light like wood?)
- *WOODPECKERING (bark removed or flakes of bark on ground/snow)
- *DISCOLORED FOLIAGE (may not turn color until well after attack)
- *EXIT HOLES (appear after the insects have left the tree)

INTERNAL SIGNS AND SYMPTOMS

***GALLERIES OR TUNNELS OF LARVAE**

(Note any patterns, orientation of main galleries horizontal or vertical?, do they fork?, are the main galleries packed with frass or relatively clean?, do they leave the inner bark and enter the wood?)

***STAINING OF THE WOOD NEAR THE GALLERIES**

(Present/absent, color)

***LIFE STAGES OF THE INSECTS**

(Which life stage(s) is present?)

RECOMMENDATIONS TO PREVENT BARK BEETLE/BORERS

***MAINTAIN TREE VIGOR**

***AVOID WOUNDING**

***AVOID ROOT DAMAGE**

***DO NOT ALTER SOIL GRADES NEAR TREES EXCESSIVELY**

***DO NOT PERFORM PRUNING DURING THE WARM MONTHS**

***INSPECT STOCK FOR INFESTATION PRIOR TO PLANTING**

***PREVENTIVELY SPRAY SUSCEPTIBLE PLANTS ON TIME**

***DO NOT PLACE INFESTED WOOD NEAR SUSCEPTIBLE PLANTS**

***PLANT NATIVES IF THERE IS NO GOOD REASON FOR EXOTICS**

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