

Pacific madrone (*Arbutus menziesii*) survey

Assessment guide

p. 1 of 3

Tree condition

Height:

- 1 < 10' (3m) (<1 story building)
- 2 10' to 30' (3-9m) (1-3 story building)
- 3 30' to 75' (9-23m)(3-7 story building)
- 4 > 75' (>23m) (>7 story building)

Width:

Measure 4.5 feet up from the highest point of ground at the tree's base.

If multiple trunks, estimate the average width of all trunks

- 1 small <12" (30 cm) (less than a ruler wide)
- 2 medium 12" to 24" (30-60 cm) (1 to 2 rulers wide)
- 3 large 24" to 36" (60 - 90 cm) (2 rulers to 1 yard stick wide)
- 4 extra >36" (90 cm) (wider than a yard stick)

% Crown

Estimate the height at which the branches begin to grow on the tree trunk

Estimate from the base of the tree.

- 1 < 10' (3m) (<1 story building)
- 2 10' to 30' (3-9m) (1-3 story building)
- 3 30' to 75' (9-23m)(3-7 story building)
- 4 > 75' (>23m) (>7 story building)

New foliage

- 0 None
- 1 Bud swell
- 2 New, immature foliage

Other vegetative characteristics

- 1 Flowers
- 2 Berries
- 3 Newly emerging shoots around base of tree
- 4 Other (describe or photograph)

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Tree health

Overall impression of tree health

- H Healthy
- U Unhealthy

What percentage of the tree crown looks unhealthy or appears damaged?

- 1 < 10%
- 2 10% - 20%
- 3 20% - 50%
- 4 50% - 75%
- 5 > 75%

Foliar symptoms

- 0 None
- 1 Wilting leaves
- 2 Defoliation
- 3 Leaf spots (Necrotic reddish/brown spots)
- 4 Rust (Orange spots/bumps on underside of leaf)
- 5 Leaf blight (Whole leaf appears dry and dead, brown in color)
- 6 Botryosphaeria blight (Leaves that appear grey/black or "burnt")
- 7 Shoot Tip Dieback
- 8 Other (describe or photograph)

Foliage disease severity

If leaf blight is present, how bad is it?

- 1 <25% of foliage
- 2 25-50%
- 3 51-75%
- 4 >75%

Stem and branch symptoms

- 0 None
- 1 Dark, smooth, discolored lesions
- 2 Raised bumpy cankers
- 3 Wood decay
- 4 Other (describe or photograph)

Stem canker severity

- 1 0-5 cankers
- 2 5-10 cankers
- 3 > 10 cankers or large cankers covering most of the stem

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Insects

- 1 Wood borers
- 2 Termites
- 3 Leaf miner (white "trails" in leaf tissue)
- 4 Shield bearer (holes punched out of leaf)
- 5 Webbing in branches
- 6 Chewing on leaves
- 7 Other (describe or photograph)

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Wildlife

- 1 Bird activity including feeding and nesting
- 2 Burrowing varmint holes
- 3 Foliage browse
- 4 Chewing on bark
- 5 Other (describe or photograph)

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Site information

Check all that apply

Site Name or number		Date		
Location Describe or provide coordinates:				
Latitude _____				
Longitude _____				
Elevation _____				
Slope:		Aspect:		
Horizontal (0% - 2%) _____		NW	N	NE
Very flat (2% - 5%) _____		W	X	E
Gently sloping (5% - 10%) _____		SW	S	SE
Moderate (10% - 30%) _____		Compass direction the slope faces		
Steep (> 30%) _____		Or provide compass bearing:		
		Signs of previous site disturbance:		
		None _____		
Stand characteristics:		Fire _____		
Open canopy _____		Recent development _____		
Closed canopy _____		Landslide _____		
Single tree _____		Flooding _____		
Pure madrone _____		Other (describe) _____		
Mixed (what other species are present?) _____				

Scan and return to

melliott2@wsu.edu

Or mail to

Marianne Elliott
 WSU Puyallup
 2606 West Pioneer
 Puyallup, WA, USA
 98371-4998

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Tree information **Check all that apply**

Site Name or number	Date

Number of stems larger than 5" (12 cm) diameter

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Height:

<input type="text"/>	< 10' (3m) (<1 story building)
<input type="text"/>	10' to 30' (3-9m) (1-3 story building)
<input type="text"/>	30' to 75' (9-23m)(3-7 story building)
<input type="text"/>	> 75' (>23m) (>7 story building)

Width:

Measure 4.5 feet (1.4 m) up from the tree's base.

If multiple trunks, estimate the average width of all trunks > 5" (12 cm) in diameter

<input type="text"/>	small	<12" (30 cm) (less than a ruler wide)
<input type="text"/>	medium	12" to 24" (30-60 cm) (1 to 2 rulers wide)
<input type="text"/>	large	24" to 36" (60 - 90 cm) (2 rulers to 1 yard stick wide)
<input type="text"/>	extra	>36" (90 cm) (wider than a yard stick)

% Crown

Estimate the height at which the branches begin to grow on the tree trunk

Estimate from the base of the tree.

<input type="text"/>	< 10' (3m) (<1 story building)
<input type="text"/>	10' to 30' (3-9m) (1-3 story building)
<input type="text"/>	30' to 75' (9-23m)(3-7 story building)
<input type="text"/>	> 75' (>23m) (>7 story building)

What percentage of the tree crown looks unhealthy or appears damaged?

<input type="text"/>	< 10%
<input type="text"/>	10% - 20%
<input type="text"/>	20% - 50%
<input type="text"/>	50% - 75%
<input type="text"/>	> 75%

New foliage

<input type="text"/>	None
<input type="text"/>	Bud swell
<input type="text"/>	New, immature foliage

Other vegetative characteristics

<input type="text"/>	Flowers
<input type="text"/>	Berries
<input type="text"/>	Newly emerging shoots around base of tree
<input type="text"/>	Other (describe or photograph)

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Tree health

Check all that apply

Site Name or number	Date

Tree health

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Overall impression of tree health

<input type="checkbox"/>	Healthy
<input type="checkbox"/>	Unhealthy

What percentage of the tree crown looks unhealthy or appears damaged?

<input type="checkbox"/>	< 10%
<input type="checkbox"/>	10% - 20%
<input type="checkbox"/>	20% - 50%
<input type="checkbox"/>	50% - 75%
<input type="checkbox"/>	> 75%

Foliar symptoms

<input type="checkbox"/>	None
<input type="checkbox"/>	Wilting leaves
<input type="checkbox"/>	Defoliation
<input type="checkbox"/>	Leaf spots (Necrotic reddish/brown spots)
<input type="checkbox"/>	Rust (Orange spots/bumps on underside of leaf)
<input type="checkbox"/>	Leaf blight (Whole leaf appears dry and dead, brown in color)
<input type="checkbox"/>	Botryosphaeria blight (Leaves that appear grey/black or "burnt")
<input type="checkbox"/>	Shoot Tip Dieback
<input type="checkbox"/>	Other (describe or photograph)

Foliage disease severity

If leaf blight is present, how bad is it?

<input type="checkbox"/>	<25% of foliage
<input type="checkbox"/>	25-50%
<input type="checkbox"/>	51-75%
<input type="checkbox"/>	>75%

Stem and branch symptoms

<input type="checkbox"/>	None
<input type="checkbox"/>	Dark, smooth, discolored lesions
<input type="checkbox"/>	Raised bumpy cankers
<input type="checkbox"/>	Wood decay
<input type="checkbox"/>	Other (describe or photograph)

Stem canker severity

Cankers on the main stem and larger branches that affect water movement in the tree.

<input type="checkbox"/>	0-5 cankers
<input type="checkbox"/>	5-10 cankers
<input type="checkbox"/>	> 10 cankers or large cankers covering most of the stem

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Tree health

Check all that apply

Site Name or number	Date

Insects

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<input type="checkbox"/>	Wood borers
<input type="checkbox"/>	Termites
<input type="checkbox"/>	Leaf miner (white "trails" in leaf tissue)
<input type="checkbox"/>	Shield bearer (holes punched out of leaf)
<input type="checkbox"/>	Webbing in branches
<input type="checkbox"/>	Chewing on leaves
<input type="checkbox"/>	Other (describe or photograph)

Wildlife

<input type="checkbox"/>	Bird activity including feeding and nesting
<input type="checkbox"/>	Burrowing varmint holes
<input type="checkbox"/>	Foliage browse
<input type="checkbox"/>	Chewing on bark
<input type="checkbox"/>	Other (describe or photograph)

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Tree information

Site Name or number		Date				
Tree #	Height	Width	%Crown	New foliage	Vegetative characteristics	Other
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

For each tree, enter the measurement or number code of the characteristic in the assessment guide

Tree #	Health	% dead	Foliage	Foliage severity	Stem/ branch type	Stem/ branch severity	Insects	Wildlife
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								

For each tree, enter the measurement or number code of the characteristic in the assessment guide

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