

## Idaho Big Tree Program Measurement Directions

The Idaho Big Tree Program follows the procedures used by American Forests, the organization which keeps the National Records of Big Trees. Any tree that comes to our attention which may qualify for national record status will be submitted to American Forests under the name of the nominator, as we want to have as many Idaho trees recognized on the national list as possible.

We require validation of identification. For many trees positive identification requires fruits, or less commonly flowers, in addition to the usual branches with leaves. Please send pressed, dried specimens to us with your completed nomination form.

**HOW TO MEASURE:** Both the Idaho and American Forests programs require three measurements; from these a point total is calculated and the tree with the highest point total holds the record. Record trees within 5 points of each other are declared Co-champs. The formula is: circumference (inches) + height (feet) +  $\frac{1}{4}$  average crown diameter (feet) = total points. Measurements must be taken by someone familiar with tree measurement techniques and having the proper instruments. We will refer requests for precise measurements to local foresters. Please email or call for recommendations. Please see the *American Forests Champion Trees Measuring Guidelines Handbook* for more complicated situations – the manual can be found online at: [http://www.americanforests.org/wp-content/uploads/2014/12/AF-Tree-Measuring-Guidelines\\_LR.pdf](http://www.americanforests.org/wp-content/uploads/2014/12/AF-Tree-Measuring-Guidelines_LR.pdf)

- CIRCUMFERENCE is taken at 4½' above average ground level (DBH). If the tree is on a slope, use the average of two measurements (Figure 1). Use a diameter tape, non-stretching cloth tape, or flexible steel tape. If tree is branched at or below 4½', then take the smallest circumference below 4½' and note this height on the nomination form.
- HEIGHT. The critical feature is length of the stem (bole), but with most trees this equals height for practical purposes. Height is taken to the top of the tree, *whether it is dead or alive*. Use a clinometer, Abney, Haga altimeter, transit, or similar instrument. The average of several measurements should be taken. Stem length is difficult to measure on severely leaning trees. Some simple trigonometry is needed to calculate the stem length in these instances.
- CROWN DIAMETER - on the ground, measure the vertical projection of the widest crown width plus the crown width perpendicular to this measurement; divide by 2 for the average crown width. Use a steel or non-stretching cloth tape and a clinometer or Abney to make sure you are directly below the crown line.

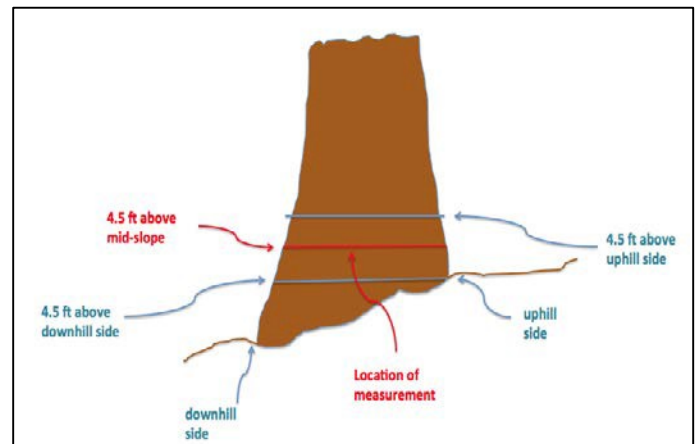


Figure 1. How to measure circumference of a tree on sloping ground.

**DATA RECORDING.** Use the form on page two. Be sure to complete all of the sections.

**PHOTOS.** Please include color photographs – digital photos are preferred. Include one or more people or some other familiar object in the picture to add scale. Please identify any people in the pictures.

Scientific name:		Common name:	
DBH (inches):	Circumference (inches):	Measuring device:	
<i>Indicate height above ground level where circumference was measured IF NOT at DBH:</i>			
Height (feet):		Measuring device:	
Crown spread (average width in feet):		Date measured:	
Measured by:		Identify verified:	
Circle one: Native/Naturalized/Cultivated	COUNTY:	Circle one: Public/Private	
Legal location:    ¼ section + section    T.    R.    B.M.	GPS Coordinates:		
Additional locators (include map):			
Owner(s) Name(s), surface mail address(s), email address(s) & phone number:			
Photo Filenames:			
Condition of tree:			
Nominator(s) Name(s), surface mail address(s), email address(s) & phone number:			
Additional remarks:			

**OFFICE USE ONLY**

<b>Circumference (in.) + height (ft.) + ¼ crown (ft.) = TOTAL PTS.</b> _____ + _____ + _____ = _____	<b>NATIONAL STATUS (Year):</b> <b>STATE STATUS (Year):</b>
<b>NOTES:</b>	<b>Owner/nominator(s) notified:</b> <b>American Forest notified:</b> <b>Certificates sent:</b> <b>Protection &amp; signs:</b>

Yvonne Barkley, Director  
 Idaho Big Tree Program  
 875 Perimeter Dr. MS 1140  
 University of Idaho, Moscow, ID 83844-1140  
 Email: [yvonnec@uidaho.edu](mailto:yvonnec@uidaho.edu); TEL: (208) 885-7718  
<http://www.uidaho.edu/extension/forestry/big-trees>