Getting Started

Recorded Values
All recorded measurements should be rounded down to the nearest whole number (i.e. 48.9 feet is recorded as 48 feet, or 132.6 inches is recorded as 132 inches).

One Tree or Two (or More?)
In practice, it must be determined whether a tree has a single trunk or whether it represents two or more stems growing very close to one another. Trunks that have clear separation or included bark at or near the ground line should be considered separate trees; trunks of different species should also be considered separate stems, no matter how closely aligned. When following the circumference rules below, if the point below the lowest fork places the measurement at the ground line, the stems should be considered separate.

Circumference

General Rule: Diameter at Breast Height or DBH is recorded at 4.5 feet up from the ground.

Record the smallest trunk circumference between the DBH point and the ground, but below the lowest fork. Also record the height above the ground, in inches, where measurement was taken. (Examples A & B)

Determining DBH Point

Tree on Slope: Measure up 4.5 feet along the axis of the trunk on high and low sides; DBH point is midway between these two planes. (Example C)

Leaning Tree: Measure 4.5 feet along both the top and undersides of the trunk; DBH point is midway between these two planes. (Example D)

Low Branches: When determining where on the trunk to measure circumference, ignore portions that do not form part of the tree’s crown, such as dead branches or forks, and epicormic sprouts, ones that grow from the trunk or branches.

Obstruction at DBH: If there is a bump, burl, branch, or other obstruction at the DBH point, measure circumference above and below the obstruction and record the smaller value. A buttress that forms between trunk and root system as a natural feature of the species (e.g.— baldcypress, water tupelo) should not be considered an obstruction.
Height

**General Rule:** Find the vertical distance between the ground line and the tallest part of the live crown, in feet. Record the measurement in feet. Also record the method used to determine this value.

(Choices include: direct measurement [telescoping pole, climbing], clinometer, hypsometer, relascope, laser rangefinder [w/ or w/o internal clinometer], stick method, pencil method, comparison, and wild guess.)

**Pencil Method**

One person stands near the trunk of the tree and the second person stands at a distance where both Person 1 and the top of the tree are visible.

Person 2 holds a ruler (or pencil) upright at arm’s length and (carefully!) walks forward or backward until the entire length of their ruler covers the tree from base to top. (Example E)

Still holding the ruler at arm’s length, Person 2 turns their wrist right or left so that the ruler is now horizontal, with one end even with the base of the tree.

Now Person 2 instructs Person 1 to move away from the trunk in the direction the ruler is pointed (at a 90 degree angle) until they are standing where the end of the ruler points. (Example F)

Person 1 is now standing roughly the same distance from the trunk, as the tree is tall. Use a tape measure to record this distance, in feet.

Crown Spread

**General Rule:** Along the drip line of the tree (Example G), two measurements of the crown width are taken and recorded, in feet, at right angles to one another.

Drip Line: the outline on the ground of the outermost leaves of the crown. (Example G) Only live portions of the crown are included.

Measurement 1 is the widest crown spread (Example H), which is the greatest distance between any two points along the drip line.

For Measurement 2, turn the axis of measurement 90 degrees from Measurement 1’s line in this plane. (Example I)

Then, average the two perpendicular crown spread measurements.