

## Hints for data collection

The following are some hints for recording tree data into TreeWorks.

### Species

Only **record species**, e.g. green ash, black ash, sugar maple. Do not try to determine cultivar. The book *Trees for South Dakota* can be used to identify tree species. If you are not sure of the species, record it as unknown and we will go back out and determine the species. NO guessing, please!

### Measurements



**Record diameter** in inches using the Biltmore scale on the cruiser stick. A Biltmore stick is a straight stick graduated for direct measurement of tree diameter. The stick is held horizontally against the trunk (at 4.5 feet above the ground) but at 25 inches from the eye. One end of the stick is lined up with the trunk's edge by eye and the other edge of the trunk is used for the diameter. The Biltmore scale is identified on the cruiser stick. If you need to measure 4.5 feet, the ruler in inches is on the slanted side of the stick.



**Height** is measured to the nearest 5 feet using the Hypsometer. The hypsometer scale is also on the cruiser stick. The user stands 66 feet away (about 12 to 14 paces for the average person) from the tree and *holding the stick in a vertical position*, matching the base of the stick to the base of the tree.

Continuing to hold the stick in the same position, the height is taken by lining up the top of the tree with the stick and reading off the scale. The stick records in logs – 16 ft to a log – so 1 log is 16 feet, 2 logs equal 32 feet. A scale in feet is provided for you with tape.

Estimate **spread** by walking the from the edge of the canopy to the trunk – count your paces and a pace will be about 5 feet – take this number and multiple by two for canopy spread.

A **trunk is two stems** (or more) if it forks below 4 feet from the ground.

## Condition



**Excellent** – a full canopy without any dead limbs (branches directly attached to the trunk) or branches

**Good** – a few dead branches in the canopy that are less than 4 feet long. No more than 10% canopy decline.



**Fair** – less than 5 dead branches no more than 6 to 8 feet long, no more than one dead limb. No more than 20% canopy decline



**Poor** – several dead limbs, but no more than 40% canopy decline.

**Very poor** – numerous dead limbs, more than 50% canopy decline.

**Dead**