

HERITAGE TREE PROGRAM



CHAMPION TREE PROGRAM

- Started by American Forests in 1940
- Competition to find the largest trees of their species in the nation
- Engage the public in forestry activities
- National register recognizes 561 species total

LET'S FIND AND SAVE THE BIGGEST TREES

By JOSEPH L. STEARNS

ONE OF THE most tragic stories in the history of American forests is now in the making. It hasn't been written in its final form, but our children will live to see that day unless something is done. I refer to the gradual disappearance of our most magnificent remaining tree specimens. The giants I have in mind are not necessarily the big redwoods of the West Coast; nor are they the well known famous and historic trees. Such trees are in the main well protected. I refer to the giants scattered throughout our remaining virgin forest stands, most of which are now inaccessible to the public because they are in private ownership.

At this moment I can think of several unusually large oaks, gums, sycamores, and pines that should be given special protection. In one restricted location in southeast Georgia I came across a mill that is, to my knowledge, now cutting the last original growth red bay trees in the United States. When logging operations have been completed there will be no red bays in the country worthy of classification above shrubs. Shall we sit idly by while this is being done? I believe that a few of our biggest specimens of each tree species should be singled out, marked, plotted on timber maps, and preserved. All lumber company employees should be notified that such trees are not to be cut, damaged by felling adjacent trees, or scarred by careless axmen. Railings should be erected around them; the ground should be cleared of fire hazards for a reasonable distance in every direction, and, when possible, a plowed strip of ground should be maintained as a further fire protective measure. This done, many of our finest specimens could be preserved for their natural lives. Then future generations would be able to see matured specimens of each tree species. If things go on as they are now this will never be possible.

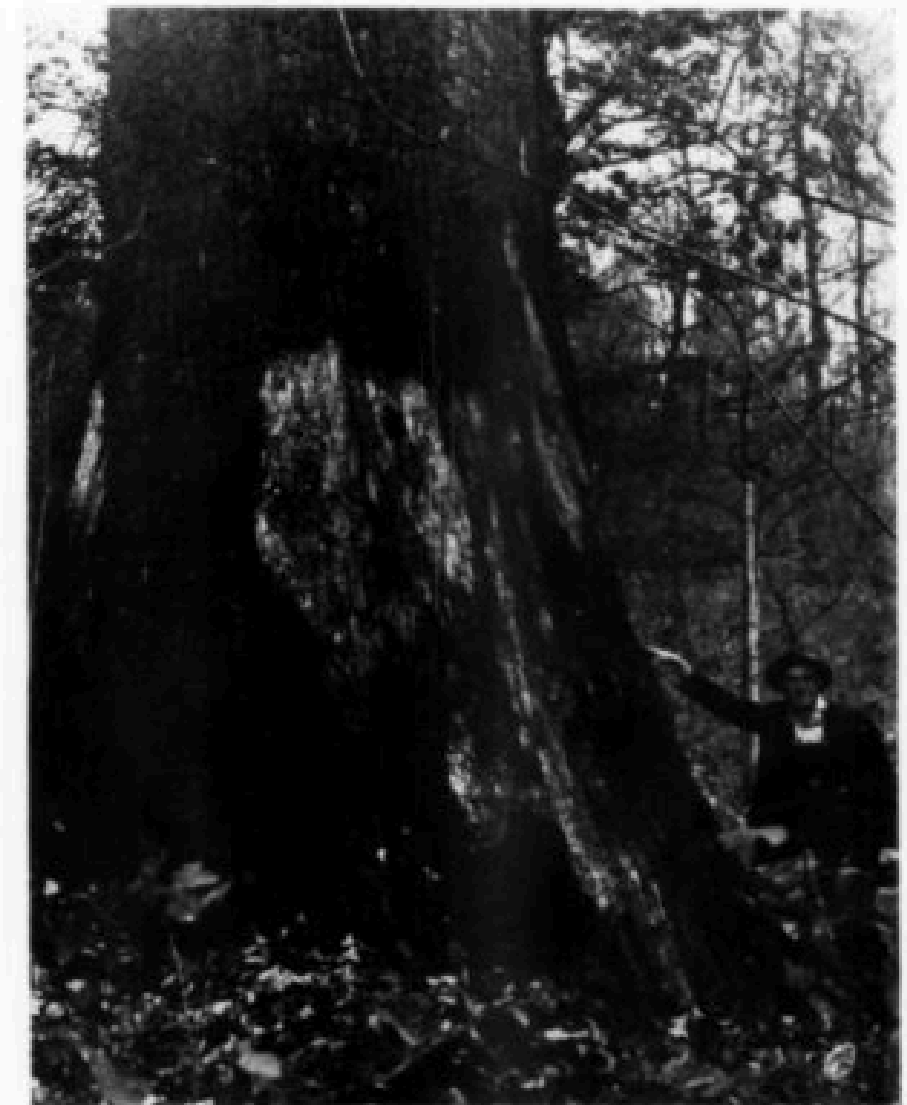
Let me relate the story of a grand old tulip, or yellow poplar tree that fought for its existence for hundreds of years and, finally, through the carelessness of man, crashed to the ground in a fiery blaze one night in 1934.

Back in 1792, when the first settlers made their way into western North Carolina, the mountains were covered with an endless jungle of massive hardwood trees. The principal occupations at first, of course, were clearing land and making homes. But soon the sawmills came—small, crude affairs in those early days. Transportation of logs was by oxen, and the strength of these beasts, contrary to the popular expression, "strong as an ox," was pitiful in comparison to a mod-

ern tractor. For this reason the largest trees were left standing. Equipment then could not handle the big logs. As time went on larger mills made their appearance. These operations brought in overhead skidders and donkey engines, and most of the hardwoods up to six feet in diameter were easy prey.

But up on the steep slopes of Craggy Mountain, fifteen miles northeast of Asheville, there was one lordly yellow poplar that towered above all the great trees around it. No sawmill in the South could have handled such a log without blasting it in quarters, for its trunk was more than twelve feet in diameter, breast high, and not a limb emerged from its straight, massive shaft for a hundred feet above the ground.

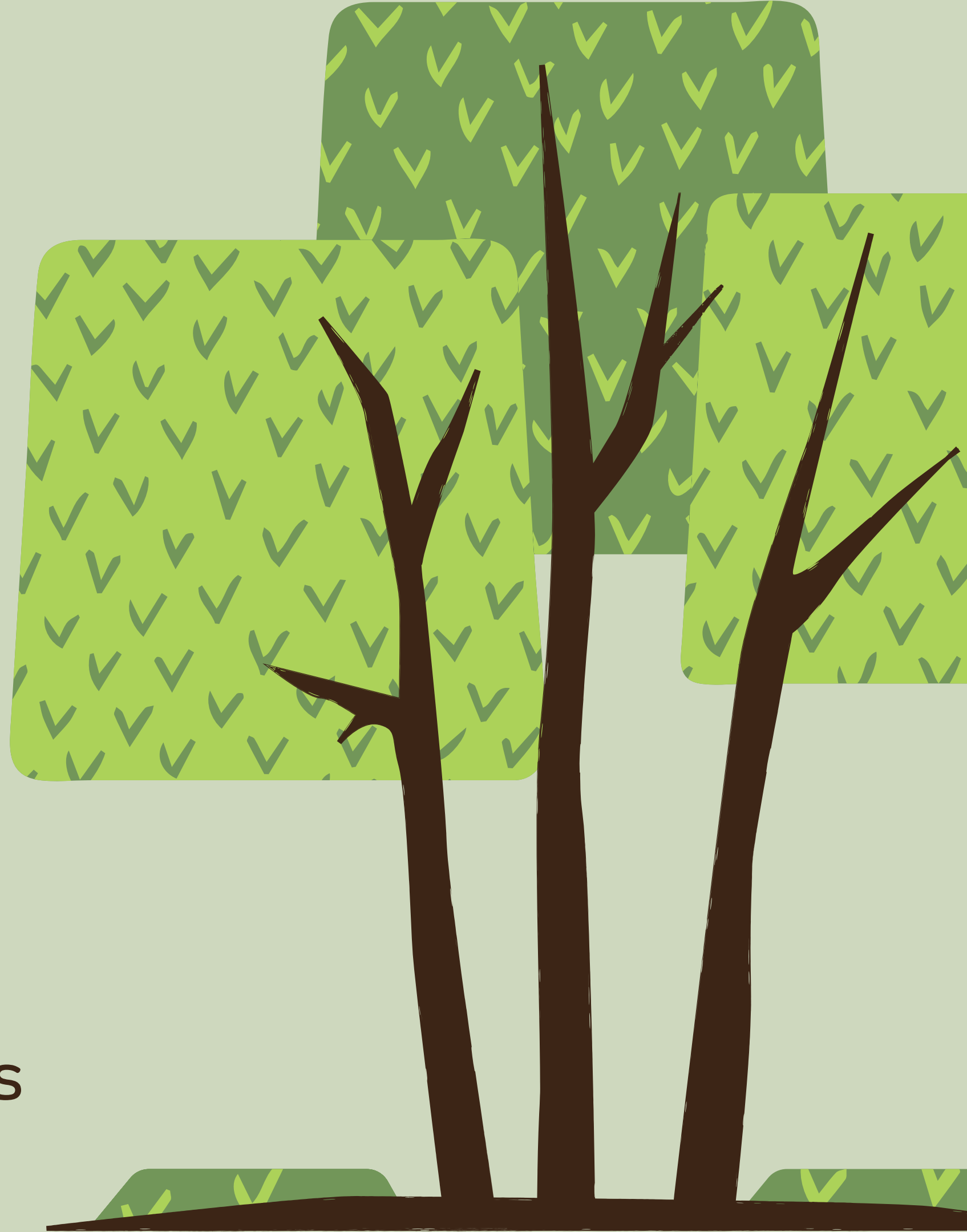
Lumbermen in the early days passed this tree by because it was too big to handle. Those in later years would no doubt have cut it, even though they would have found it necessary to *(Continuing on page 416)*



All that remains of the world's largest tulip, or yellow poplar. Located near Weaverville, North Carolina, it was killed by fire in 1934

LEGACY TREE PROGRAM

- 2024- moved to the School of Natural Resources at the University of Tennessee Institute of Agriculture
- Largest, most interesting, historical origins, unique and significant importance growing within the state of Massachusetts



ECOSYSTEM SERVICES



HISTORY



SCIENCE



PRESERVATION



FUN



FUTURE STEWARDS



HERITAGE TREE PROGRAM

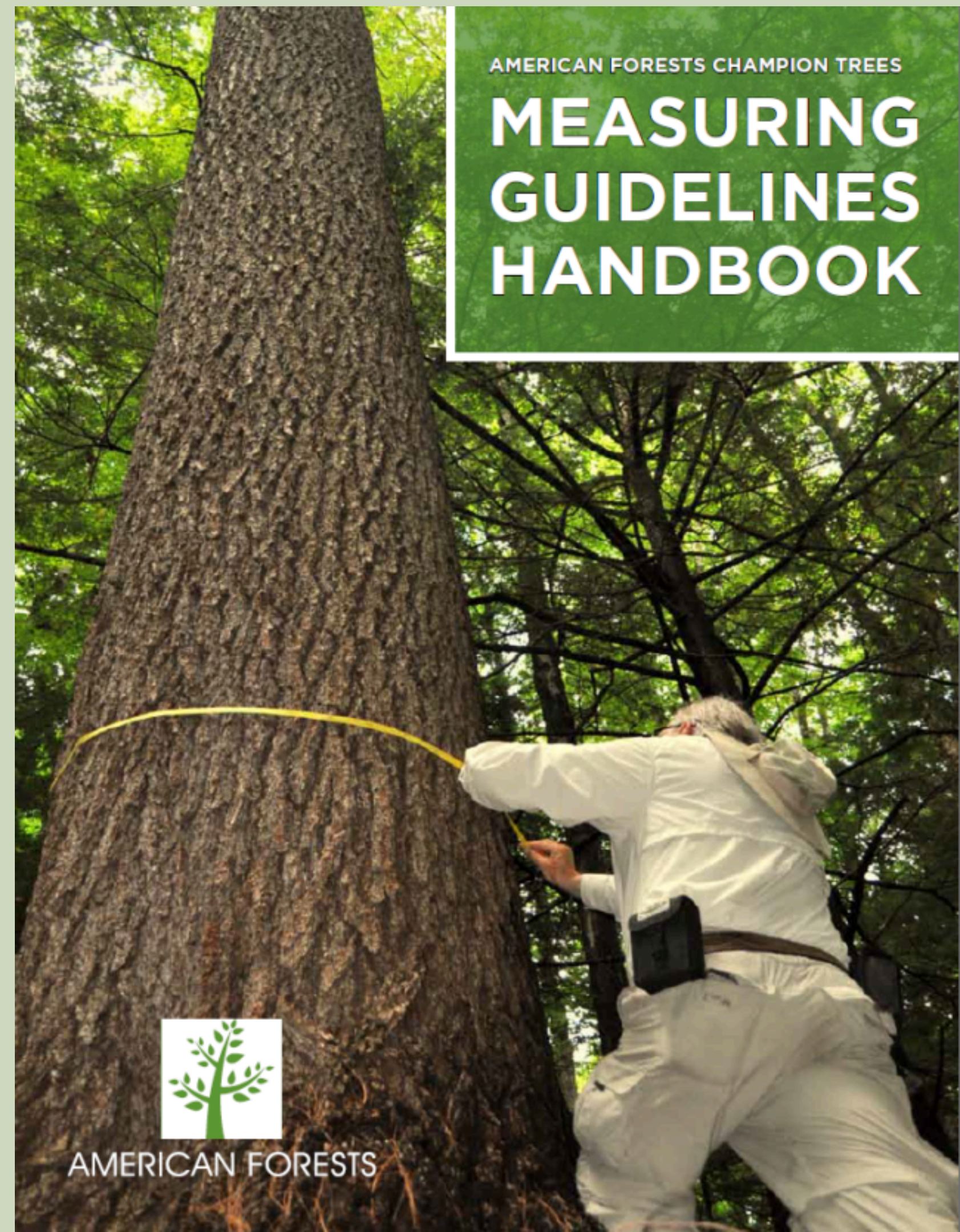
- T3C owned and managed land
- Trail outings May (2) and June (2)
- Collect and record data
- Creation of our own official registry to be updated every year

AMERICAN FORESTS CHAMPION TREES

MEASURING GUIDELINES HANDBOOK



AMERICAN FORESTS



Common name: _____

Circumference (inches): _____

Height (feet): _____

Crown spread (feet): L_1 _____ L_2 _____ $L_1 + L_2$ _____ $/2$ _____

Tree age: $C =$ _____ $D =$ _____ $GF =$ _____ $D \times GF =$ _____

Condition: Excellent Good Fair

common name



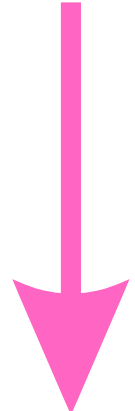
white oak

Fagaceae

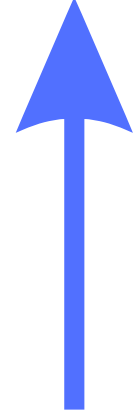
Quercus alba

L. (native)

botanical authority



scientific name



ecological status



Common name: white oak

Circumference (inches): _____

Height (feet): _____

Crown spread (feet): L_1 _____ L_2 _____ $L_1 + L_2$ _____ $/2$ _____

Tree age: $C =$ _____ $D =$ _____ $GF =$ _____ $D \times GF =$ _____

Condition: Excellent Good Fair

Common name: Fagaceae Quercus alba

Circumference (inches): _____

Height (feet): _____

Crown spread (feet): L_1 _____ L_2 _____ $L_1 + L_2$ _____ $/2$ _____

Tree age: $C =$ _____ $D =$ _____ $GF =$ _____ $D \times GF =$ _____

Condition: Excellent Good Fair

Common name: _____

Circumference (inches): _____

Height (feet): _____

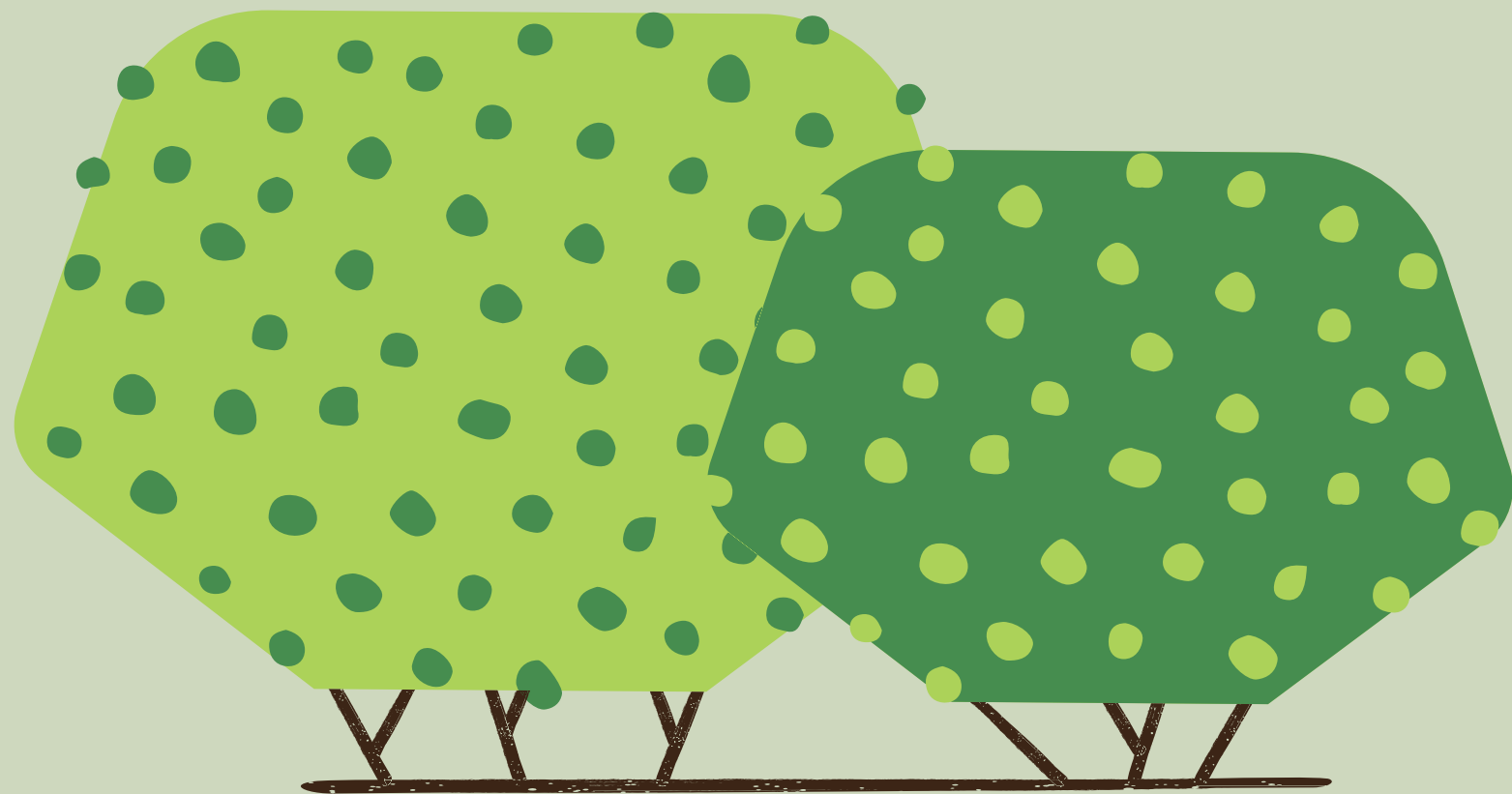
Crown spread (feet): L_1 _____ L_2 _____ $L_1 + L_2$ _____ $/2$ _____

Tree age: $C =$ _____ $D =$ _____ $GF =$ _____ $D \times GF =$ _____

Condition: Excellent Good Fair

CIRCUMFERENCE/GIRTH

- Inches
- Measuring tape
- DBH



Common name: _____

Circumference (inches): _____

Height (feet): _____

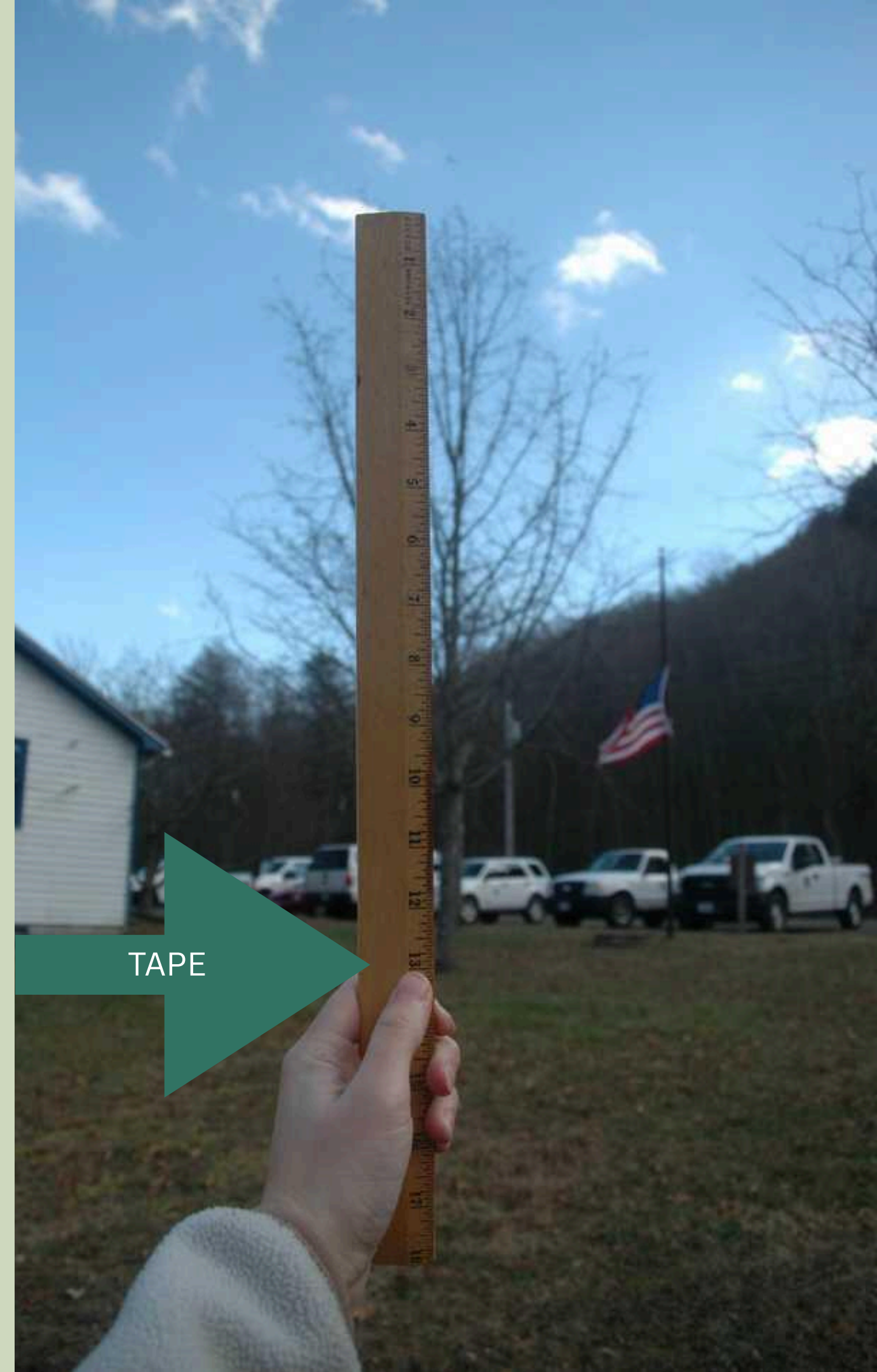
Crown spread (feet): L_1 _____ L_2 _____ $L_1 + L_2$ _____ $/2$ _____

Tree age: $C =$ _____ $D =$ _____ $GF =$ _____ $D \times GF =$ _____

Condition: Excellent Good Fair

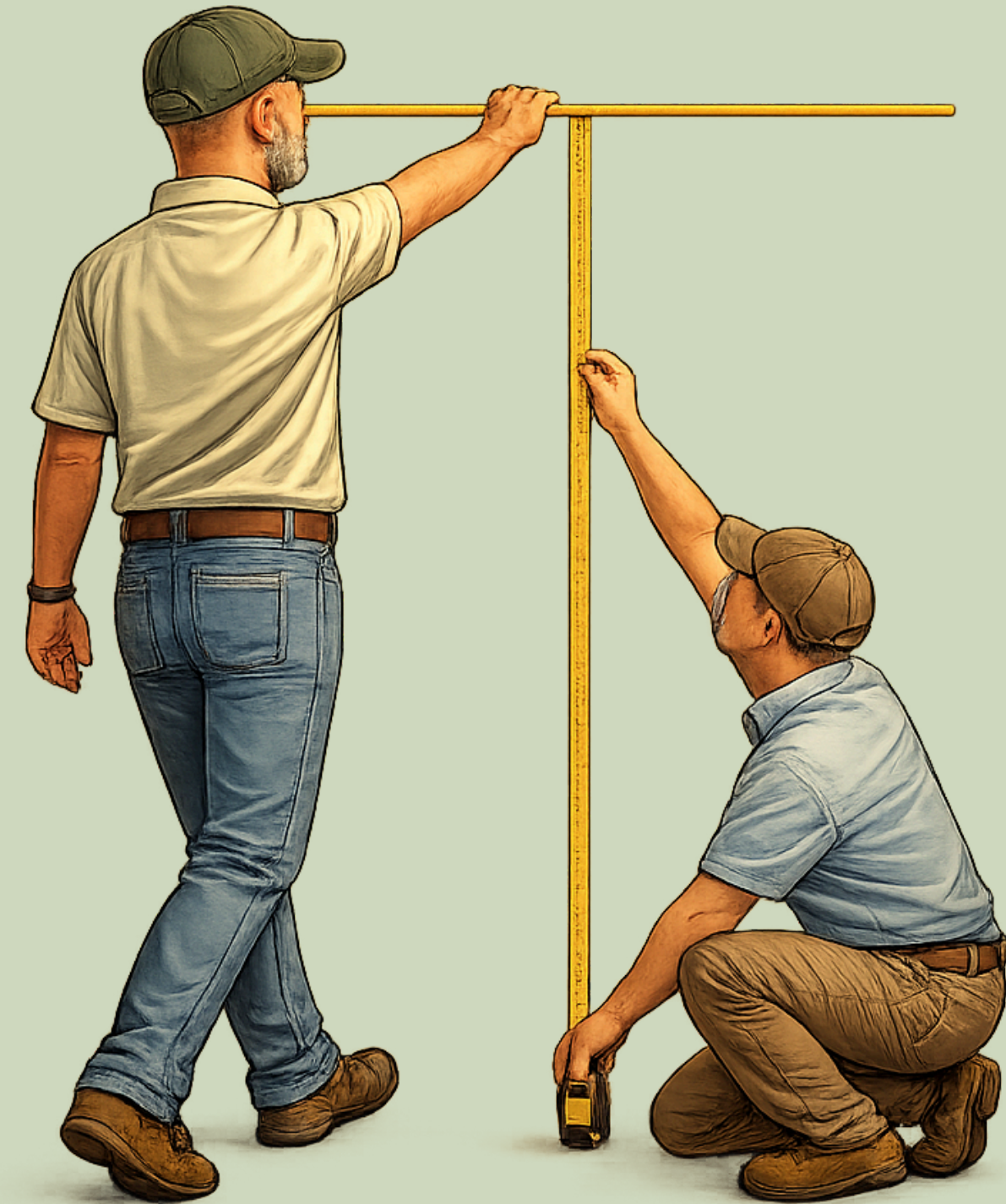
HEIGHT

- Feet
- Stick method
- Stick/pole and measuring tape



HEIGHT

1. Hold stick horizontal against your cheekbone.
2. Have a partner measure your height from the ground to your cheekbone. Write that down.
3. Straighten out your arm and put a piece of tape at the tip of your finger.



HEIGHT

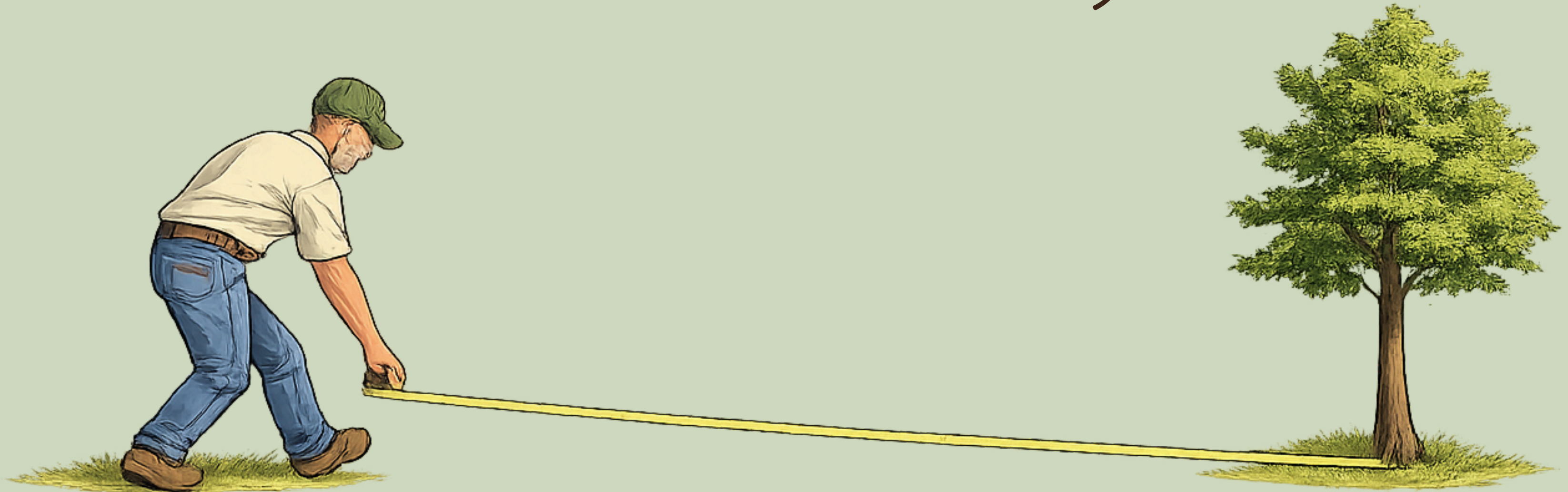
4. Flip the stick vertically and walk backwards until the stick lines up with the tree.
5. The base of the tree should line up with your tape and the top of the tree should not be taller than your stick.



HEIGHT

6. Have a partner use the measuring tape to measure the distance between you and the tree.

7. Add that number to the first measurement you took.



Common name: _____

Circumference (inches): _____

Height (feet): _____

Crown spread (feet): L_1 _____ L_2 _____ $L_1 + L_2$ _____ $/2$ _____

Tree age: $C =$ _____ $D =$ _____ $GF =$ _____ $D \times GF =$ _____

Condition: Excellent Good Fair

CROWN SPREAD

- Distance between the farthest point of the tree canopy on one side to the farthest point on the other side

- Feet

- Axis method

- Measuring tape

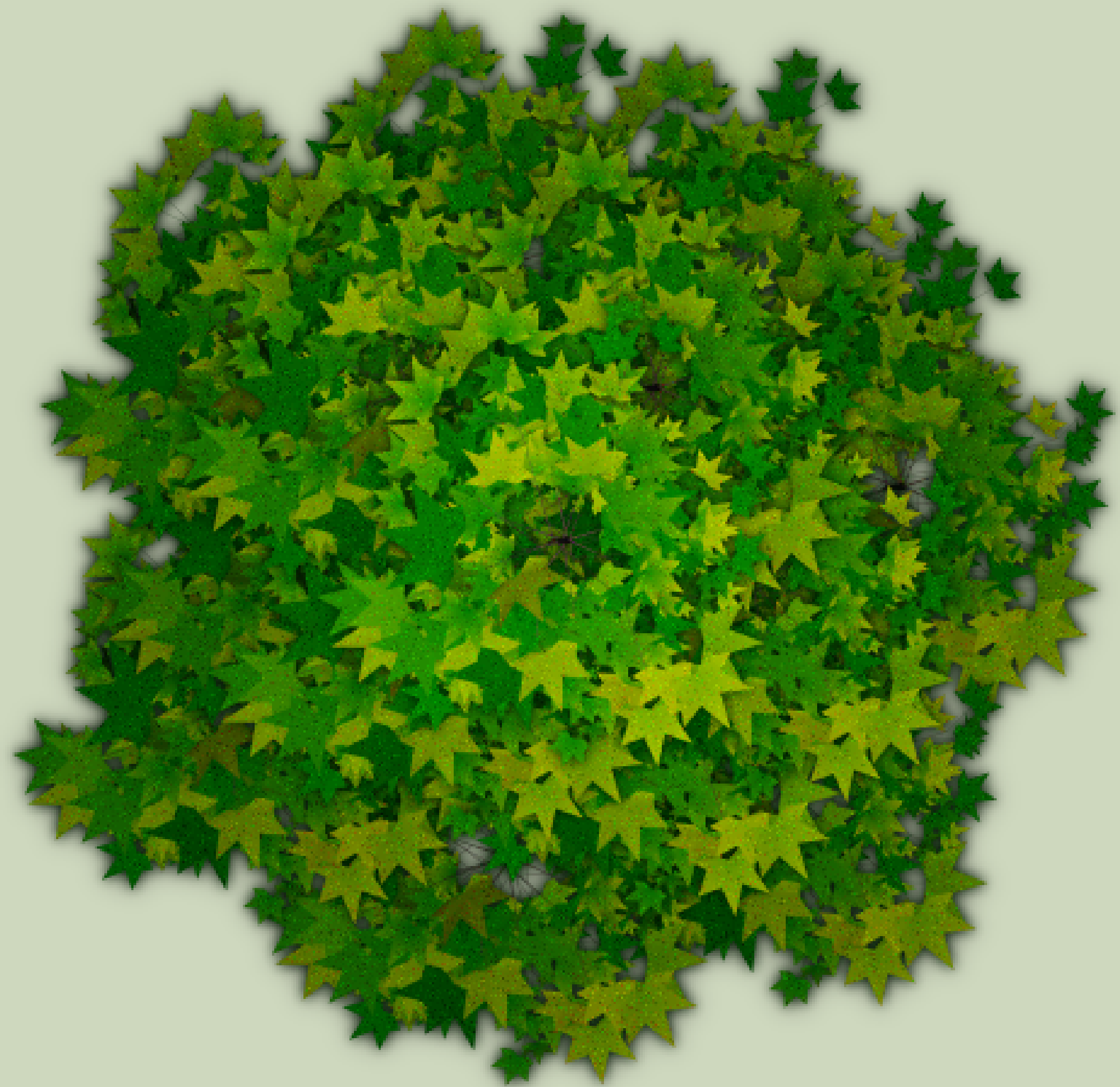


Tree Drip Line

vs.

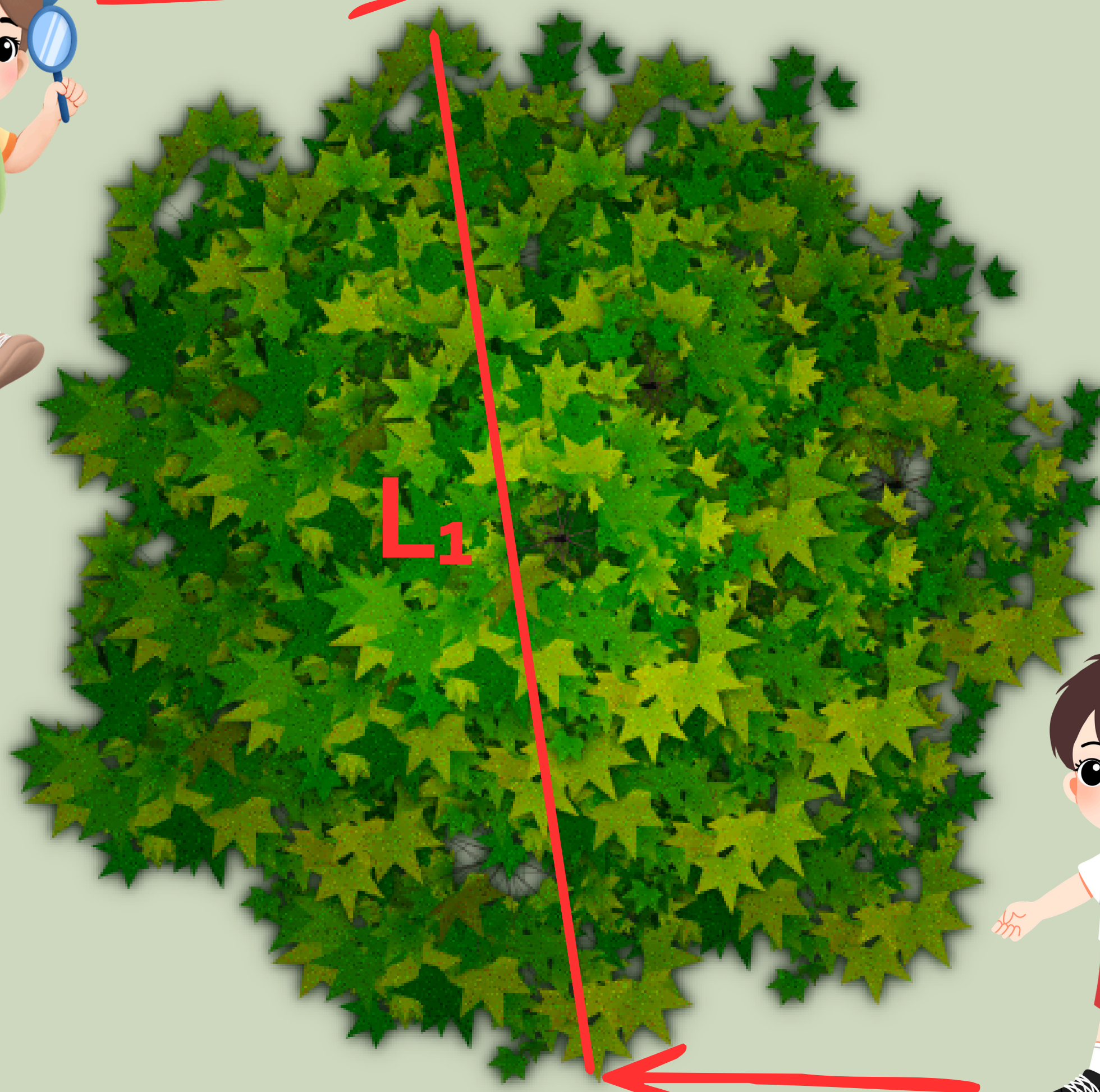


Umbrella Drip Line



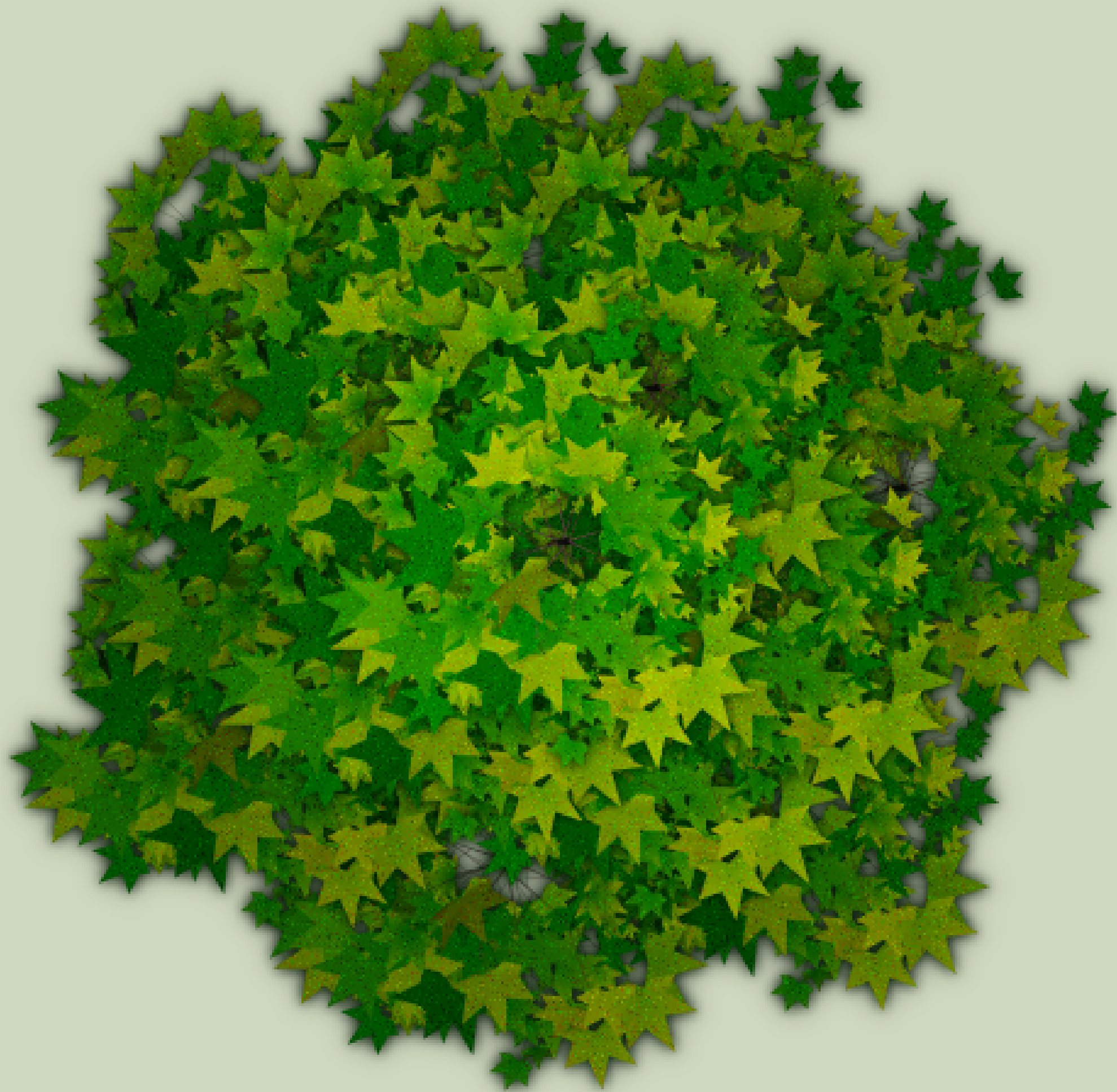


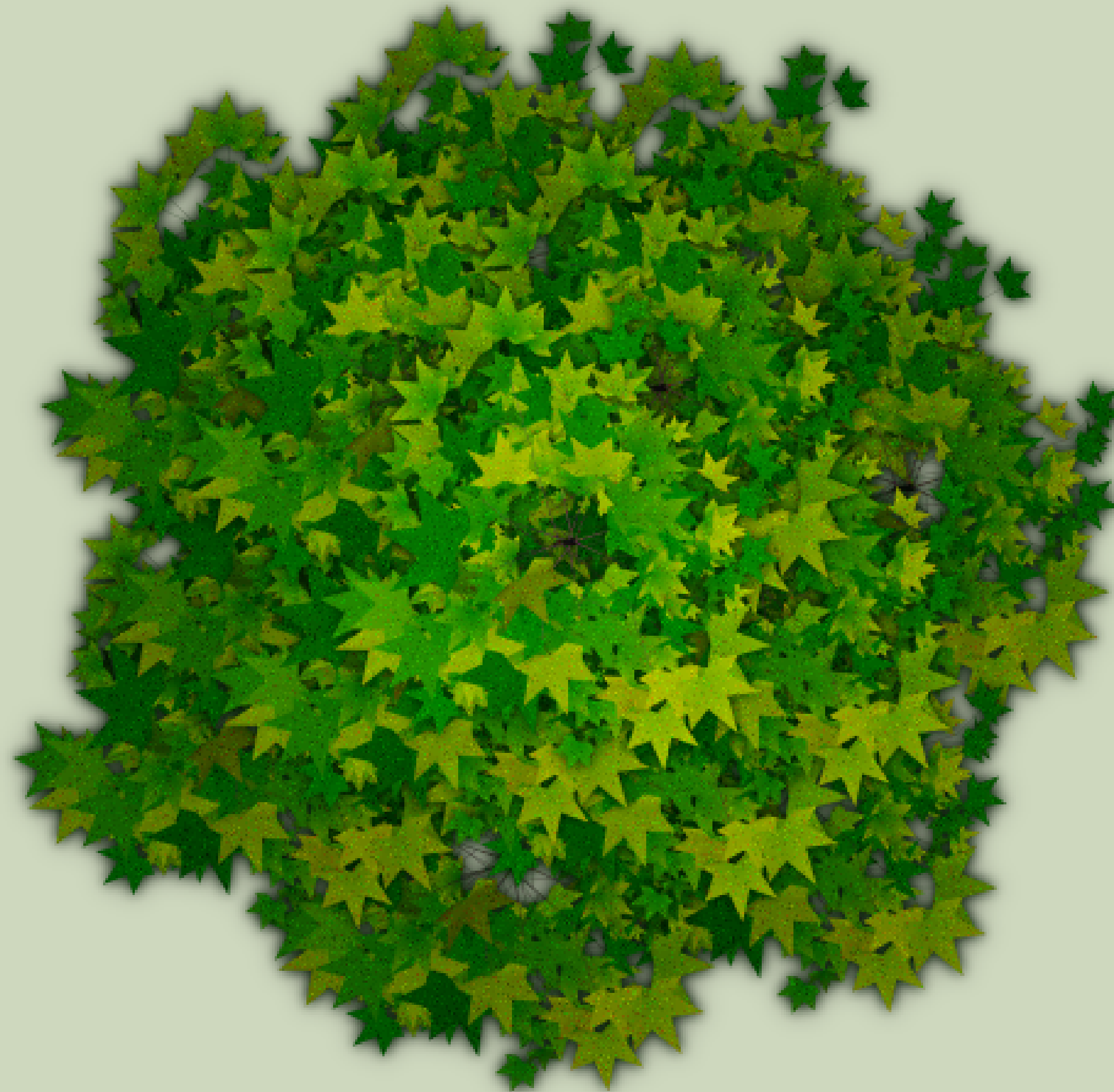


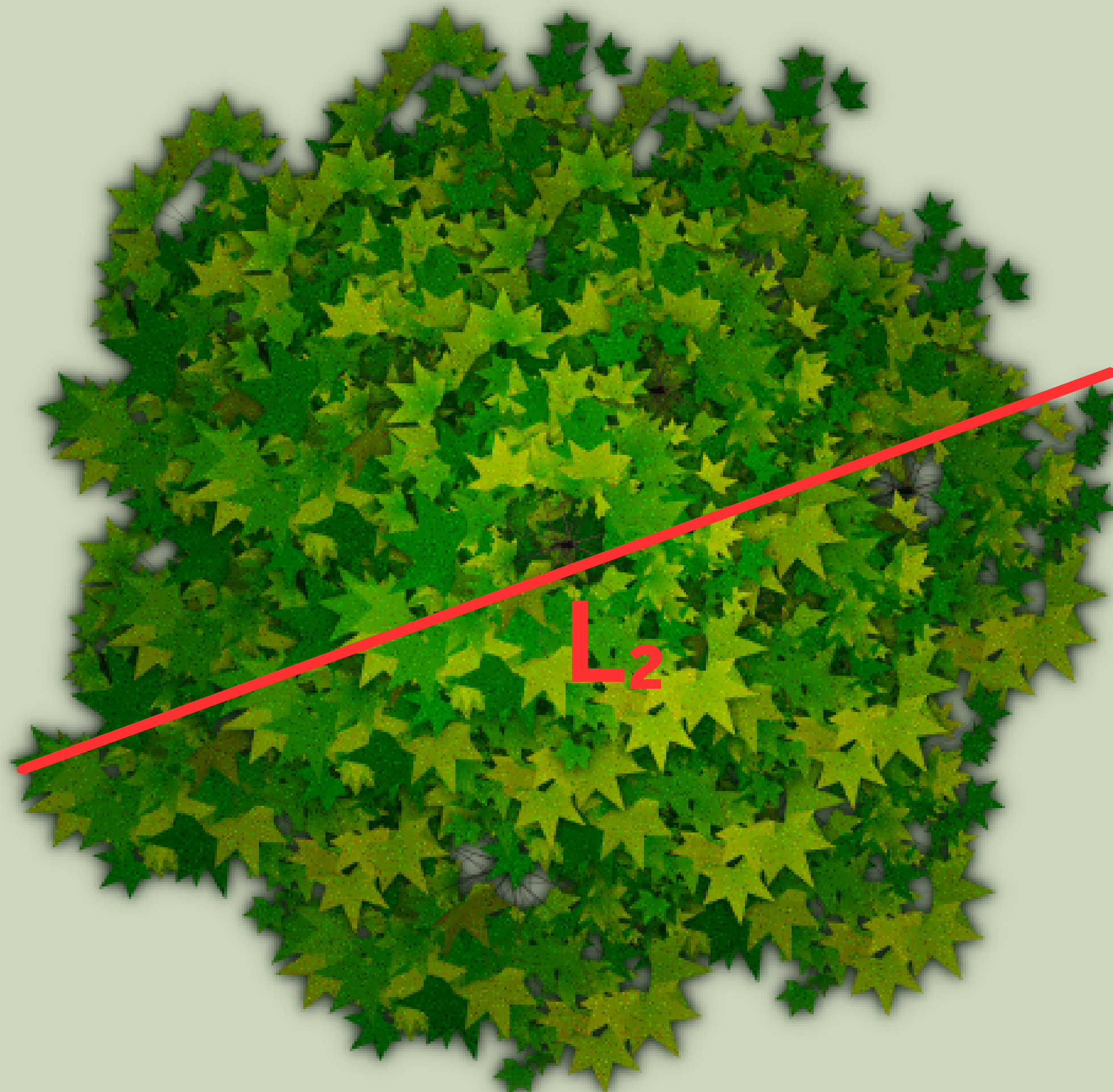


L₁









CROWN SPREAD FORMULA

$$\frac{L_1 + L_2}{2}$$

Common name: _____

Circumference (inches): _____

Height (feet): _____

Crown spread (feet): L_1 _____ L_2 _____ $L_1 + L_2$ _____ $/2$ _____

Tree age: $C =$ _____ $D =$ _____ $GF =$ _____ $D \times GF =$ _____


Condition: Excellent Good Fair


TREE AGE

- Find circumference
- Calculate diameter: divide the circumference by pi
- Find growth factor using key card
- Calculate age: multiply the diameter by the growth factor

TREE AGE FORMULA

$$\frac{C}{\pi} \times GF$$

$$\text{Tree age} = \frac{C}{\pi} \times GF$$


$$\text{Tree age} = \frac{60}{3.14} \times GF$$


$$\text{Tree age} = 19 \times 5$$


$$\text{Tree age} = \sim 95$$

Common name: _____

Circumference (inches): _____

Height (feet): _____

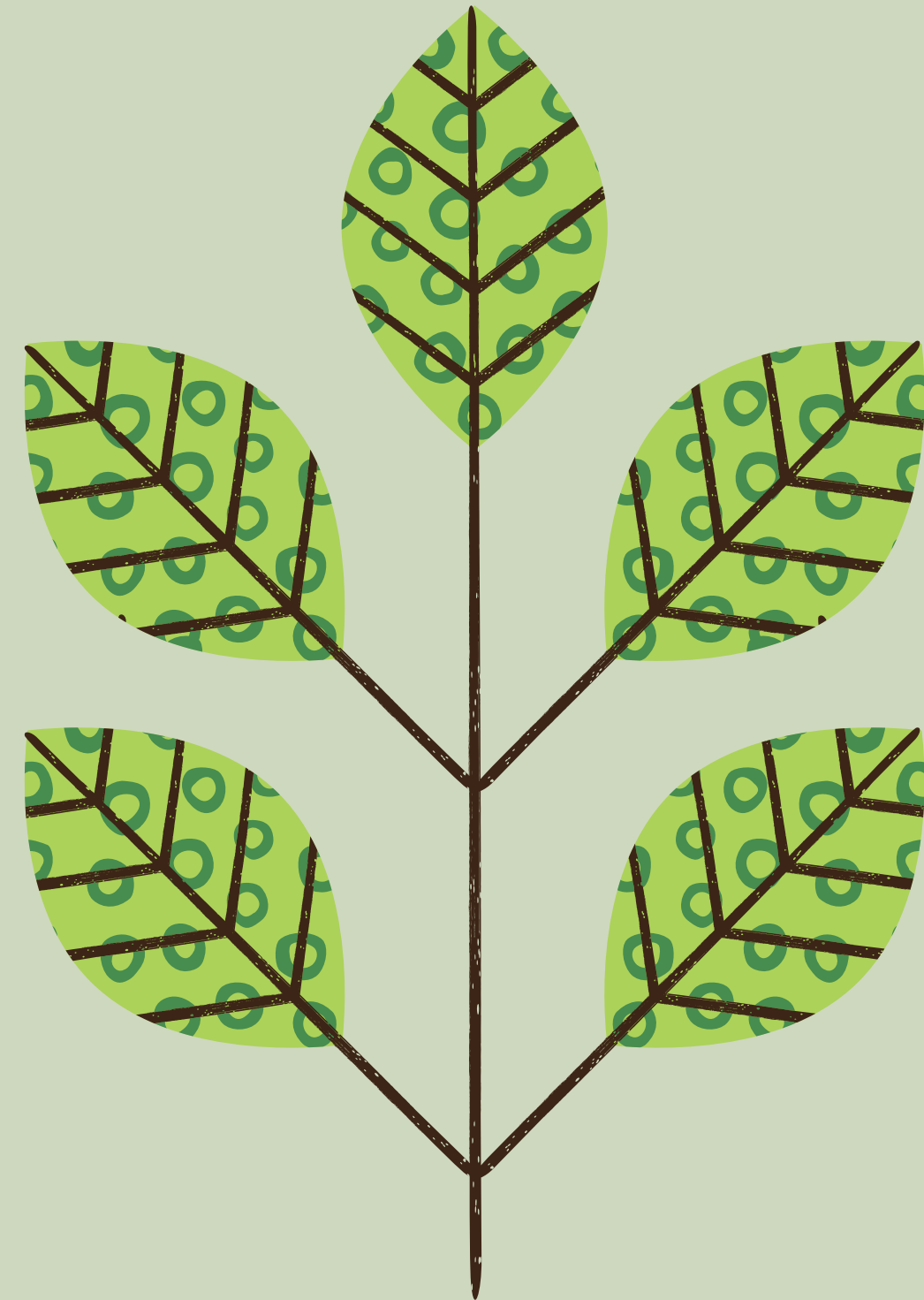
Crown spread (feet): L_1 _____ L_2 _____ $L_1 + L_2$ _____ $/2$ _____

Tree age: $C =$ _____ $D =$ _____ $GF =$ _____ $D \times GF =$ _____

Condition: Excellent Good Fair

EXCELLENT

- **Form:** excellent vigor (physical strength and good health)
- **Crown:** well-balanced
- **Trunk:** sound and solid
- **Pest:** no apparent problems
- **Growth:** normal to exceeding shoot length
- **Leaf:** normal size and color



GOOD



- **Form:** lacks natural symmetry
- **Crown:** imperfect canopy density in 10% or less of the tree
- **Pest:** few issues or damage, and controllable if present
- **Growth:** healthy, normal branch and stem development
- **Leaf:** less than half the normal growth rate and minor deficiency in leaf development

FAIR



- **Form:** poor overall symmetry
- **Crown:** decline and dieback up to 30% of canopy
- **Trunk:** some decay areas found in the main stem and branches
- **Pest:** obvious signs of problems
- **Growth:** shoot extensions indicate some stunting and stressed conditions
- **Leaf:** size smaller and color somewhat chlorotic

Excellent



Good



Fair



WHAT'S NEXT?

LOCATION: Goodwill Park

WHEN: May??

REFERENCES

“Champion Trees.” American Forests, www.americanforests.org/champion-trees/. Accessed 17 Feb. 2026.

“Massachusetts Legacy Tree Program.” Mass.gov, Commonwealth of Massachusetts, www.mass.gov/guides/massachusetts-legacy-tree-program. Accessed 17 Feb. 2026.

“National Champion Tree Program.” National Champion Tree Program, www.nationalchampiontree.org/. Accessed 17 Feb. 2026.

