



# Collecting and Exhibiting Tree Leaves

## 4-H Members Guide

Oklahoma Cooperative Extension Service • Division of Agricultural Sciences and Natural Resources • Oklahoma State University

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When you have learned the correct identity of the tree(s) from which a leaf was taken and exactly what defines a complete leaf, you are ready to make a collection and prepare an exhibit.

### Collecting the Leaves

Generally, the best leaf collection time is during the months of June and July. Leaves damaged by insects or disease should not be used due to discoloration or other defects.

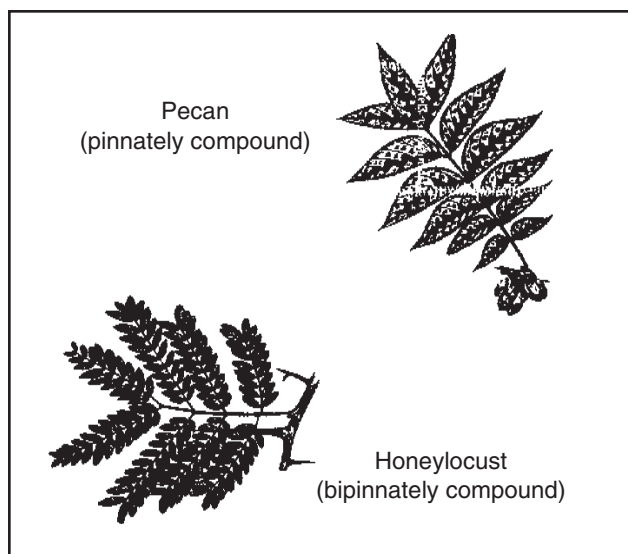
Leaves for a collection should be the same size and shape as a majority of the leaves on the tree. Leaves growing in the shade are sometimes much larger than those receiving adequate sunlight. Additionally, leaves growing on young trees or from sprouts may not be normal in size or shape. Consult the official reference book, **Forest Trees of Oklahoma** by E.L. Little, Jr., for examples of typical leaf size, shape, and types (simple, palmately compound, pinnately compound, bipinnately compound, and needle, scale, or awl).

Complete leaves must be collected for the exhibit. Leaflets such as those found on pecan, hickory, and ash trees or other trees with pinnately or bipinnately compound leaves (See figures 1 and 3) will not be accepted as full leaves. **Additionally, part of the twig with a lateral or terminal bud must be collected.**

All collected leaves must be handled carefully before being placed in a leaf press (or other pressing technique) for final drying. Leaf specimens can be protected while collecting in the field by placing them between the pages of a magazine. A light-weight, easily handled field press can be constructed using 2 pieces of stiff cardboard and several layers of newspaper held together with large rubber bands. Place specimens between the sheets of newspaper with the cardboard on the outside for flatness and stability.

### Pressing Leaves

Before leaves can be used for an exhibit, they must undergo a final drying process. All specimens should be



**Figure 1. Pinnately or bipinnately compound leaves must be used, not just a leaflet.**

removed from the temporary field press as soon as possible. A 'low cost' method which requires no special equipment is outlined below.

- Select a flat area (floor, desk, tabletop) in a room with good air circulation.
- Place wax paper or foil on the surface for protection.
- Add 6-8 sheets of unwrinkled newspaper, placing one sheet neatly on top of the others.
- Place the fresh leaf specimen to be pressed on the top sheet of paper. Be careful not to let leaves overlap or wrinkle by overcrowding; simply use additional layers of paper.
- Place 6-8 additional sheets of newspaper on top of leaves.
- Alternate layers of paper and leaves until all leaves collected for the exhibit are in the stack.
- Cover the top layer of newspaper with stiff cardboard or plywood, which has been cut to the same size as the paper.
- Place sufficient weight (books, bricks, etc.) on top of the plywood/cardboard to press leaves flat and hold them in position.

If desired, a portable leaf press can be constructed from wood strips or plywood, sheets of absorbent paper, and two webbing straps or heavy elastic bands. Please refer to 4-H Forestry Fact Sheet #237; Leaf Presses and Collecting Hints for detailed construction plans.

As long as the initial specimens are undisturbed, additional leaves may be added to the collection by simply increasing the height of the stack. Where there is good ventilation, leaves will be dry enough to handle in 3-6 weeks. Recently collected or partially dried leaves often wrinkle or mold when used in an exhibit. This affects the overall attractiveness of the exhibit.

## Mounting Leaves on the Exhibit

Dried leaves are brittle and do not withstand repeated handling or rough treatment. Therefore, it is recommended that leaves remain in the press until time to mount them on the exhibit board.

To preserve the beauty of the collection and add strength to the leaves, a clear plastic or acrylic spray finish may be to them. These acrylic or plastic spray coatings should be applied outside on a windless day or inside a well-ventilated garage or workshop. Be certain spray does not drift onto non-targeted items.

- Place leaves flat on a piece of newspaper or 'butcher paper.'
- Apply the spray in a thin coat to the leaf surface.
- Allow leaves to dry completely between coats and before handling.
- Turn leaves over and apply a thin coat of acrylic spray to underside of leaf.
- Handle sprayed leaves only after they have dried completely.

Brown, cracked, and/or frayed leaves are evidence of old or previously used leaves or of rough treatment after the drying process. Exhibits with these characteristics are not graded as highly in competition; therefore, only well-formed, insect and disease-free, properly dried leaves should be exhibited.

The final mounting of the leaves to the exhibit board should be carefully planned. No two exhibits will look exactly alike due to specimen size or shape. The leaves should be placed on the exhibit in a manner that uses the recommended space most effectively. Only after the exhibitor is satisfied with the arrangement of his/her leaves, should they be permanently attached to the board.

Leaves can be permanently mounted to the exhibit board by using one of several methods outlined below:

### Method 1:

- Apply several drops of clear-drying glue to the back of the leaf (a thin coat of glue-water mixture also works well).
- Turn the leaf over and immediately place specimen on exhibit board.
- Press the leaf firmly onto exhibit board by placing a weight on the leaf (small sandbags make ideal weights as they put pressure on the entire leaf surface).

This is a very attractive method of mounting the specimens to the exhibit as the leaf surface is not covered.

## Other Methods

- Apply cellophane tape carefully to leaf surface (generally, this type of tape works well, but yellows with age).
- Apply library or bookbinding tape to leaf specimen (it has a clear finish and does not darken with age). Using narrow strips of tape generally produces a more attractive exhibit than full leaf-width strips.

Make certain the leaf specimen is held flat to exhibit board when positioning permanently.

## Leaf Exhibit Requirements

Any 4-H member enrolled in a forestry project may prepare and enter a leaf exhibit in his or her appropriate class.

**Class I Exhibit:** Ages 9-11 years.

- **Number of Leaf Specimens: 10** (native Oklahoma species only - no introduced species). **One specimen** must be from a native evergreen-pine or juniper. Include a twig and buds with each broadleaf specimen.
- **Exhibit Board:** Can be made of poster board, plywood, masonite, or similar material. Exhibit board must have a **white** finish. Since bending causes mounted leaves to come loose or be broken, exhibits made on poster board may need to frame or stiff cardboard glued to the back for additional support. Dimensions of the exhibit board must be 22-inches wide by 28-inches tall.
- **Labels** may be printed or typed in **black** letters on white paper.
- **Title: "4-H FORESTRY I"** 1-inch tall black letters, ALL CAPS, centered on exhibit board 1-inch from top of page.
- **Tree ID Labels:** Should measure  $\frac{1}{2}$ -inch wide by  $2\frac{1}{4}$ -inches long, a white label with black lettering. Include the **complete** name of the specimen: Examples-**sugar maple** not **maple**; **blackjack oak** not **oak**; **shortleaf pine** not **pine**. Letters should be a 12 or 14 font (if using a computer) or pica sized type (10 letters per inch) if using a typewriter. **Only proper names should be capitalized!** Examples-American elm, Shumard oak, hackberry.
- **Exhibitor ID Label:** Should measure  $1\frac{1}{2}$ -inches high by 3-inches long and be a white label with black lettering. It should be placed in the lower right-hand corner of exhibit board and should include:

Name  
Complete Address  
County & Age  
4-H Club Name

**Class II Exhibit:** Ages 12-15 years. (See Figure 2.)

- **Number of Leaf Specimens: 15** (native Oklahoma tree species only - no introduced species). **Two specimens** must be from a native awl or scale-leaf evergreen-pine or juniper. Species of pine not native to Oklahoma are acceptable only if they have been introduced for planting windbreaks and shelterbelts. Include a twig with buds with each broadleaf specimen exhibited. **At least three of the five basic leaf types must be represented** on the exhibit.

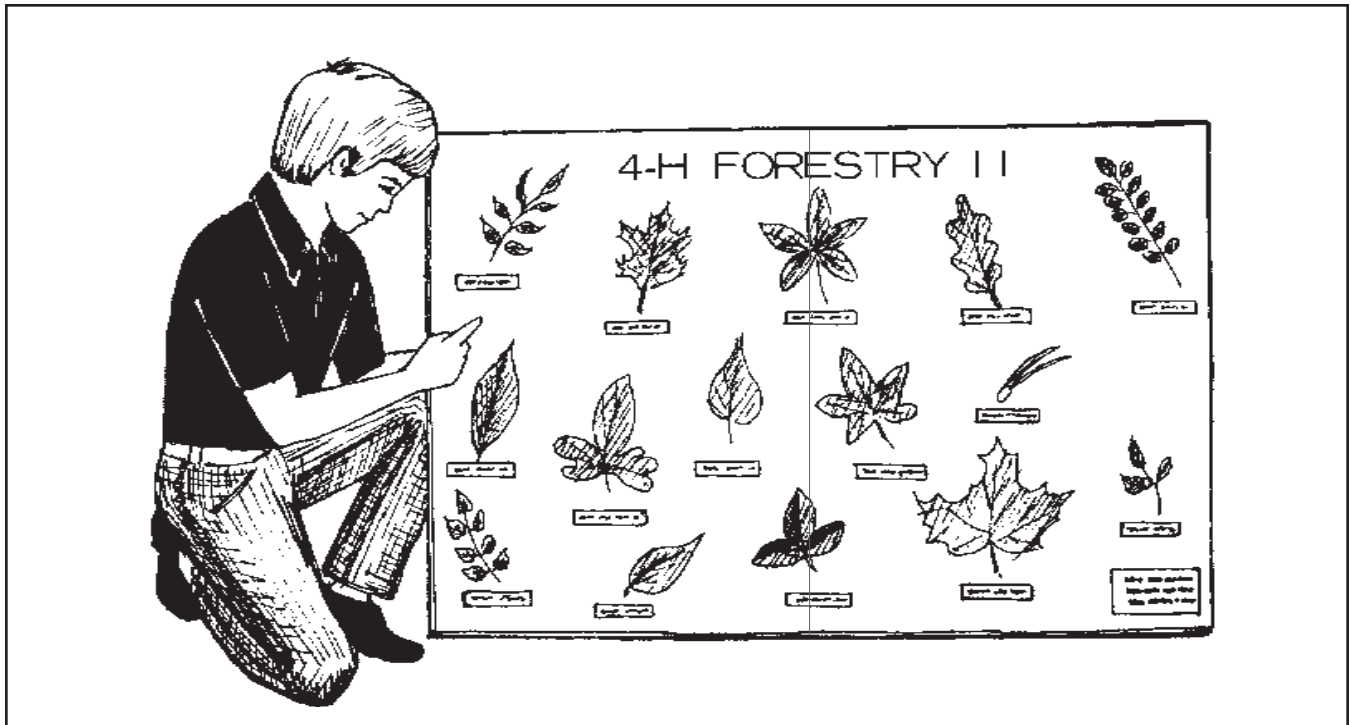


Figure 2. Class II Exhibit.

- **Exhibit Board:** Can be poster board, plywood, masonite, or similar material. Exhibit board must have a **white** finish. Dimensions must be 28-inches tall by 44-inches wide. Generally, two 28- by 22-inch boards, hinged in the middle are more portable.
- **Labeling:** Labels may be printed or typed in **black** letters on white paper.
- **Title:** “4-H FORESTRY II” 1-inch tall black letters, ALL CAPS, centered on exhibit board 1-inch from top edge.
- **Tree ID Labels:** Should measure  $\frac{3}{4}$ -inch wide by 3-inches long (white with black lettering) and will consist of two lines. Type or print the complete common name of the specimen on the top line and the Latin name on the second line. The scientific name will always include two Latin words: 1) the genus always begins with a capital letter; 2) the species always begins with a small letter. The scientific name should either be underlined or typed in italics. Only proper names should be capitalized.  
**Example:** chinkapin oak,  
*Quercus muehlenbergii*, or  
*Quercus muehlenbergii*
- **Exhibitor ID:** Same as for Class I Exhibits

**Class III Exhibit:** Ages 16 years or older.

- **Number of Leaf Specimens: 20** (native Oklahoma trees only). **Three** specimens must be from needle, scale, or awl-leaf evergreens. Species of pine not native to Oklahoma are acceptable if they have been introduced for planting in windbreaks and shelterbelts. **Four of the five basic leaf types must be represented.** The palmate (See

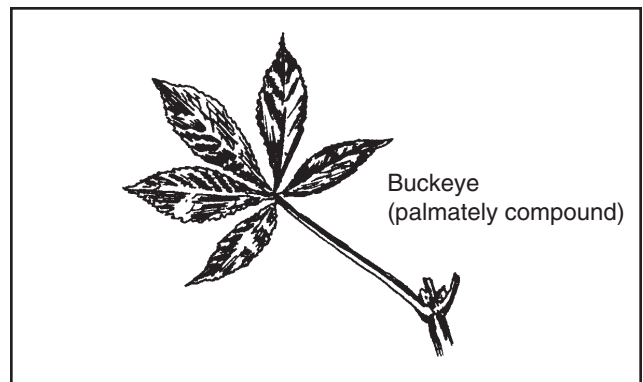


Figure 3. A palmately leaf example.

figure 3) leaf sample must come from a native Oklahoma species.

- **Exhibit Board:** The board may be made of any material or color treatment desired. The exhibit should be of high artistic quality, suitable for decorative display in home, office, or other place of business. Dimensions are the same as for the Class II Exhibit.
- **Labeling:** Labels must be printed or typed, but exhibitor may use a background choice other than white, and generally, may be more creative with exhibit labeling.
- **Title:** “4-H FORESTRY III” use same lettering size, etc., as Class II Exhibit.
- **Tree ID:** Use same size labels with same basic information as in Class II. Accuracy of identification, correct spelling, and capitalization outweigh any artistic treatment in labeling.
- **Exhibitor ID:** Use same dimensions and include information listed as for Class I exhibit.

## **Suggested References:**

**Forest Trees of Oklahoma**—Dr. E.L. Little, Jr. Order from Oklahoma Dept. of Agriculture, Forestry Services Division, 2800 N. Lincoln Blvd., Oklahoma City, OK 73105-4298 (cost: \$4.00).

**Trees of the Eastern and Central United States and Canada**—Dr. William M. Harlow. Order from Dover Publications, Inc., 180 Varick Street, Dept. NS, New York, NY.

**Important Trees of Eastern Forests**—USDA Forest Service publication FS-466, October, 1991.

## **For additional information about 4-H Forestry exhibits and preparation, consult:**

Leaf Presses and Collecting Hints: 4-H Fact Sheet No. 237

4-H Forestry Wood Sample Exhibits: 4-H Fact Sheet No. 238

Forestry Self-Determined Project: 4-H Fact Sheet No. 239

4-H web site: [www.clover.okstate.edu/fourh](http://www.clover.okstate.edu/fourh)

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