



OSU EXTENSION
4-H YOUTH DEVELOPMENT

Wood Sample Exhibits

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

Craig McKinley

Extension Forestry Specialist

Our forests are one of our most important natural resources. They provide the basic raw material for the manufacture of thousands of products we see and use every day. Trees not only provide us with products which make life more enjoyable, but they produce many things necessary for life itself. Each of us use numerous wood products which bear no resemblance to wood, and we are probably not even aware that they are made from wood. Some wood products look like wood, such as wooden houses, furniture, lumber, doors, cabinets, fence posts, shingles, shovel handles, toothpicks, and railroad ties. Other things made from wood, which do not look like wood, include many kinds of paper, some plastics, gunpowder, turpentine, charcoal, photographic film, and ingredients in some foods and medicines. In fact, more than 5,000 different kinds of products are made from wood.

It is important to select the proper kind of wood for each specific use because not all kinds will serve every purpose equally well. For example, black walnut is used for gunstocks because it is strong, less likely to warp or crack after it is dry, has a very interesting grain pattern, and it takes a beautiful finish. Southern pine is also strong, but its other qualities make it more desirable for construction uses and less desirable for gunstocks.

As a 4-H member, you will have many experiences where a knowledge of wood will be of great benefit to you. Recognizing some of the more common types of wood will prove to be an asset. This knowledge will be helpful when selecting the proper type of wood for handicraft projects, as well as when buying lumber for a dog house, bird house, or other construction project. You should also know about wood when selecting furniture and other furnishings, or when deciding which material to use for cabinets or interior trim. Paneling is very popular today, and the color, grain, and texture of the wood paneling selected will determine the entire atmosphere of the room. When selecting the best wood for any purpose, it must be selected according to its own particular characteristics.

The 4-H forestry wood sample exhibits are intended to help you acquire skill in recognizing different woods and becoming familiar with their best uses. These exhibits are interesting to make, and your involvement in making them will prove to be an educational experience. Even though they are eligible for entry in fairs, this type of competition is really of

secondary importance. The primary purpose for making the exhibit should be the knowledge you will gain through actually working with the wood. Many adults will be interested in your collection, and you may have the opportunity to set up a display of wood identification and proper use as a special 4-H activity.

Girls as well as boys will benefit from an increased knowledge of wood. Actually working with wood is the best way to develop a deeper appreciation for its versatility.

What to Do

You can usually find scraps of lumber at your local lumber dealer, cabinet shop, or where buildings are under construction. Your lumber dealer or builder will probably help you with identification, tell you where the trees grow naturally, and explain some of their more important uses. Another source of help is the booklet "Forest Trees of Oklahoma." It is available from the Oklahoma Forestry Services at the Agriculture Building, 2800 North Lincoln, Oklahoma City, OK 73105. The cost is currently \$4.00, which includes shipping. You may also wish to purchase wood samples from commercial dealers.

Who may Enter

The wood sample exhibits are divided into three classes. Class I is designed for girls and boys ages 9 to 11 only. Class II is designed for girls and boys ages 12 to 15, and Class III is for girls and boys ages 16 and older.

Making the Exhibits

Class I (9 to 11 years of age)

Materials Needed

1. Plywood — one piece - 1/4 inch by 20 inches by 22 inches.
2. White posterboard — six pieces - 2 inches by 3 inches; one piece - 1 1/2 inches by 3 inches; and one piece - 2 inches by 12 inches.
3. Wood samples — three pieces of *hardwood* - 3/4 inch by 3 inches by 4 inches; three pieces of *softwood* - 3/4 inch by 3 inches by 4 inches.

Note: So-called "one-inch" lumber you buy in the lumber yard is actually only 3/4 inch thick. Hardwood lumber comes from deciduous trees (trees that shed their leaves each fall) and softwood lumber comes from evergreen trees. The terms really do not refer to how hard the lumber is. For example,

cottonwood, which is a hardwood, is actually softer than southern yellow pine, which is a softwood.

Completing the Project

The plywood backboard and wood samples must be cut to the proper size and sanded to a smooth surface. Samples must be solid wood. Do not use plywood veneer.

Print "4-H FORESTRY I" in block letters one inch high on the 2" by 12" posterboard and glue to the top and center of the plywood. Print or type the information called for on each label. Size and spacing instructions are detailed in the Class I drawing. Be neat and follow instructions carefully.

Mount *three sanded hardwood samples in the top row*, such as red oak, white oak, as, cherry, walnut, gum, etc. Mount *three sanded softwood samples in the bottom row*, such as southern yellow pine, eastern redcedar, redwood, spruce, etc.

Class II (12 to 15 years of age)

Materials Needed

1. Plywood — one piece - 1/4 inch by 20 inches by 22 inches.
2. White posterboard — eight pieces - 2 inches by 3 inches; one piece - 1 1/2 inches by 3 inches; and one piece - 2 inches by 12 inches.
3. Wood samples — four pieces of hardwood - 3/4 inch by 3 inches by 4 inches; four pieces of softwood - 3/4 inch by 3 inches by 4 inches.

Completing the Project

The plywood backboard and wood samples must be cut to the proper size, sanded, and finished with varnish, shellac, lacquer, or wax. Samples must be solid wood. Do not use plywood veneer.

Print "4-H FORESTRY II" in block letters one inch high on the 2" by 12" posterboard and glue to the top and center of the plywood. Print or type the information called for on each label. Size and spacing instructions are detailed on the Class II drawing. Be neat and follow instructions carefully.

Mount *four finished hardwood samples in the top row*, such as red oak, white oak, ash, cherry, black, walnut, cottonwood, gum, etc. Mount *four finished softwood samples in the bottom row*, such as southern yellow pine, eastern redcedar, western redcedar, redwood, spruce, Douglas fir, etc.

Class III (16 years of age and older)

Materials Needed

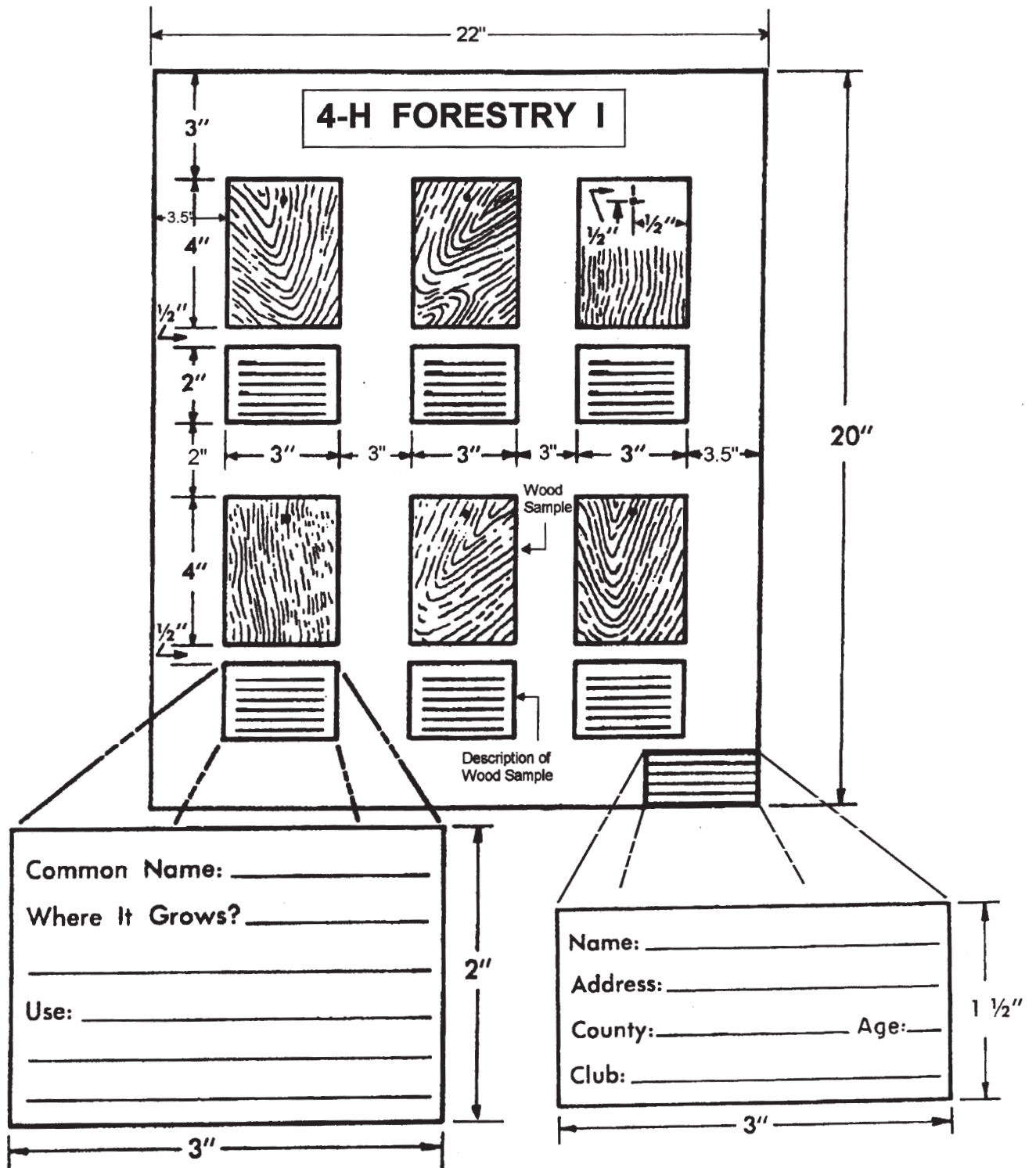
1. Plywood — one piece - 1/4 inch by 20 inches by 22 inches.
2. White posterboard — eight pieces - 2 inches by 2 3/4 inches; one piece - 1 1/2 inches by 3 inches; and one piece - 2 inches by 12 inches.
3. Wood samples — four pieces of hardwood and four pieces of softwood - 3/4 inch by 2 inches by 3 inches; edge grain view - 3/4 inch by 3/4 inch by 3 inches; and end grain view - 3/4 inch by 3/4 inch by 2 inches for each sample.

Completing the Project

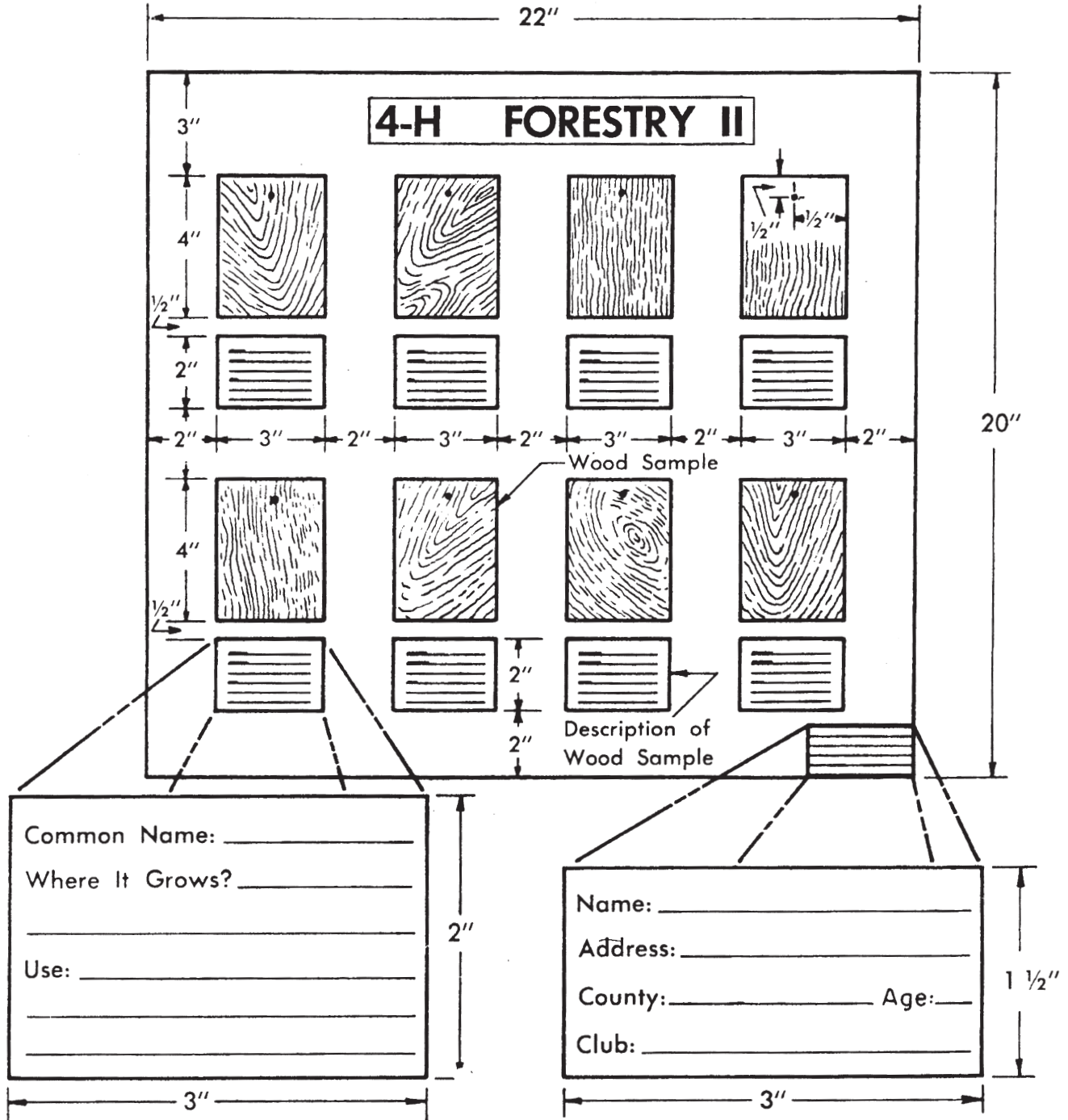
Print "4-H FORESTRY III" in block letters one inch high on the 2" by 12" posterboard and glue to the top and center of the plywood. Print or type the information called for on each label card. Size and spacing instructions are detailed on the Class III drawing. Be neat and follow instructions carefully.

The samples must be cut to the proper size, sanded, and finished with varnish, shellac, lacquer, or wax. You should glue the edge grain view to the right side of the 2 by 3 inch flat grain sample and then glue the end grain view to the bottom of the flat grain sample. Care must be taken to keep the surfaces even and smooth. You can get a smooth front display surface by turning the samples face down on glass or wax paper when gluing them together. White glue is easy to work with and will hold exceptionally well. Be alert to keep it off the surface of the wood to reduce the amount of sanding necessary to get a good finish. To increase the attractiveness of your collection, select species which show prominent differences in the grain between the separate views.

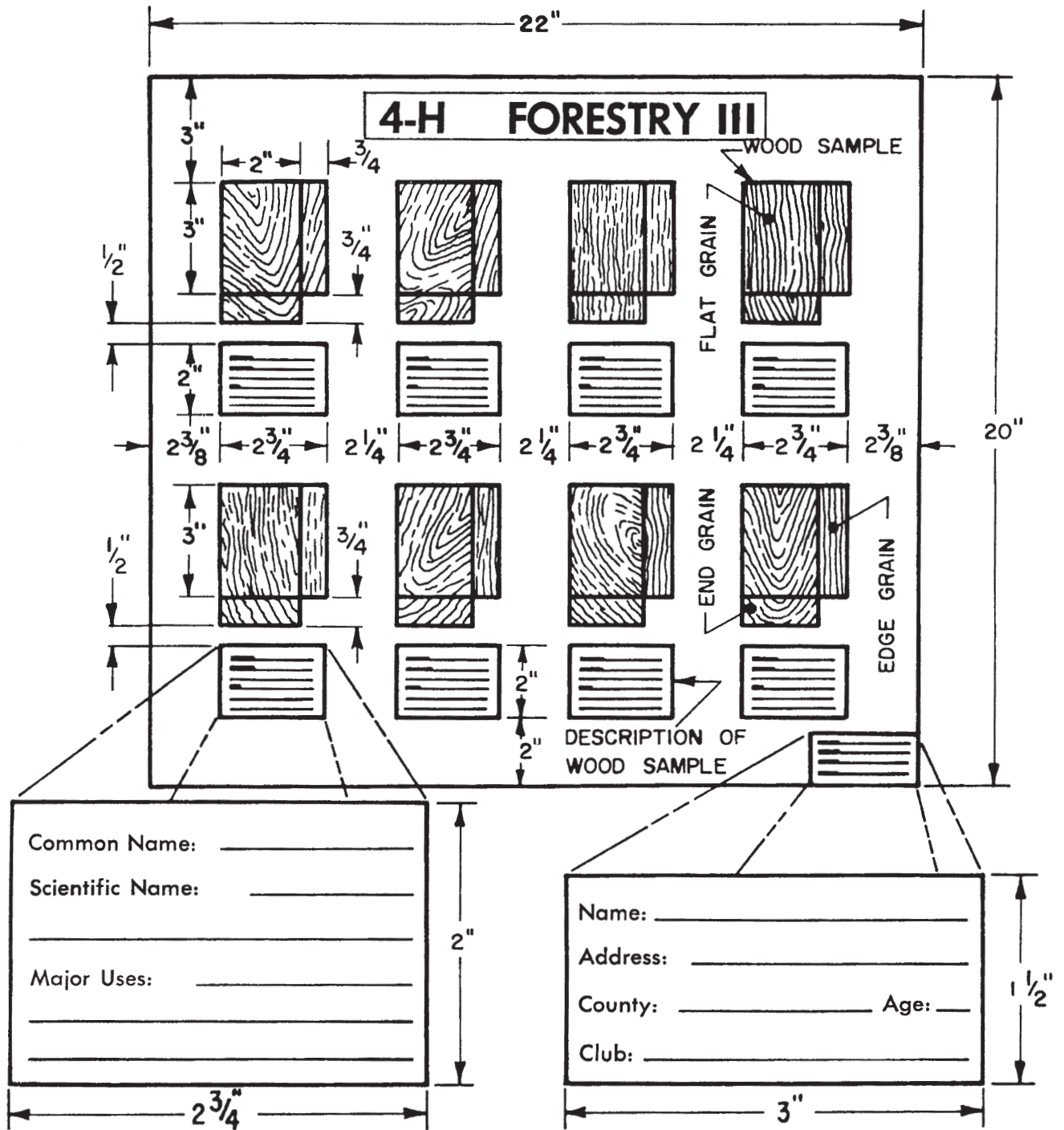
CLASS I EXHIBIT



CLASS II EXHIBIT



CLASS III EXHIBIT



The Oklahoma Cooperative Extension Service

Bringing the University to You!

The Cooperative Extension Service is the largest, most successful informal educational organization in the world. It is a nationwide system funded and guided by a partnership of federal, state, and local governments that delivers information to help people help themselves through the land-grant university system.

Extension carries out programs in the broad categories of agriculture, natural resources and environment; family and consumer sciences; 4-H and other youth; and community resource development. Extension staff members live and work among the people they serve to help stimulate and educate Americans to plan ahead and cope with their problems.

Some characteristics of the Cooperative Extension system are:

- The federal, state, and local governments cooperatively share in its financial support and program direction.
- It is administered by the land-grant university as designated by the state legislature through an Extension director.
- Extension programs are nonpolitical, objective, and research-based information.
- It provides practical, problem-oriented education for people of all ages. It is designated to take the knowledge of the university to those persons who do not or cannot participate in the formal classroom instruction of the university.
- It utilizes research from university, government, and other sources to help people make their own decisions.
- More than a million volunteers help multiply the impact of the Extension professional staff.
- It dispenses no funds to the public.
- It is not a regulatory agency, but it does inform people of regulations and of their options in meeting them.
- Local programs are developed and carried out in full recognition of national problems and goals.
- The Extension staff educates people through personal contacts, meetings, demonstrations, and the mass media.
- Extension has the built-in flexibility to adjust its programs and subject matter to meet new needs. Activities shift from year to year as citizen groups and Extension workers close to the problems advise changes.

The information given herein is for educational purposes only. Reference to commercial products or trade names is made with the understanding that no discrimination is intended and no endorsement by the Cooperative Extension Service is implied.

The original publication was prepared in cooperation with C. L. Clymer, former Extension Forester, Wood Utilization, and Max Craighead, former Extension Forestry Specialist.

For more information, please contact your local Cooperative Extension office or visit our website at: <http://oklahoma4h.okstate.edu>

Oklahoma State University, in compliance with Title VI and VII of the Civil Rights Act of 1964, Executive Order 11246 as amended, Title IX of the Education Amendments of 1972, Americans with Disabilities Act of 1990, and other federal laws and regulations, does not discriminate on the basis of race, color, national origin, gender, age, religion, disability, or status as a veteran in any of its policies, practices or procedures. This includes but is not limited to admissions, employment, financial aid, and educational services.

Issued in furtherance of Cooperative Extension work, acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture, Robert E. Whitson, Director of Oklahoma Cooperative Extension Service, Oklahoma State University, Stillwater, Oklahoma. This publication is printed and issued by Oklahoma State University as authorized by the Vice President, Dean, and Director of the Division of Agricultural Sciences and Natural Resources and has been prepared and distributed at a cost of 42 cents per copy. 0207.