



UNIVERSITY OF IDAHO
College of Agriculture

OUR FRIENDS THE TREES

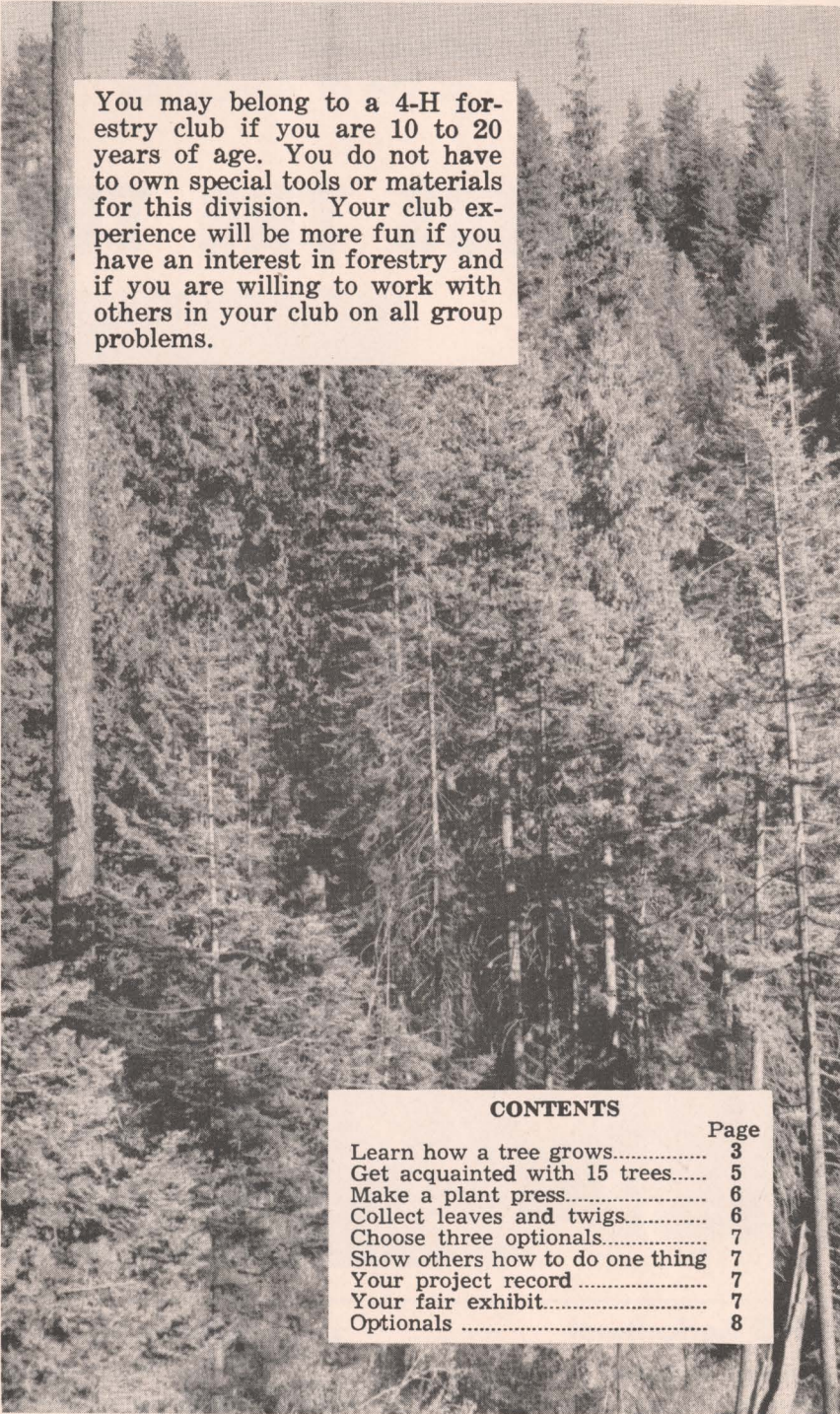
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You may belong to a 4-H forestry club if you are 10 to 20 years of age. You do not have to own special tools or materials for this division. Your club experience will be more fun if you have an interest in forestry and if you are willing to work with others in your club on all group problems.

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Our Friends The Trees

Vernon H. Burlison*

HAVE you ever moved into a new community or entered a new room at school? At first you knew no one. But you noticed things about other boys and girls that caused you to remember them, a girl's long, dark curls or a boy's close-cropped, red hair with freckled nose to match. Soon you learned their names. Maybe the dark-haired girl was Mary and the freckle-nosed boy was Fritz. You found some good friends. Do you remember that as soon as you got acquainted you had a lot more fun?

We like to have fun! And finding new friends is fun. In your community there are new friends just waiting to make your acquaintance. They have their special characteristics, likes and dislikes the same as you do. Who are they? The trees. This division of 4-H forestry will help you to make new tree friends.

Shall We Get Busy?

Here are the things we will do:

- Learn how a tree grows. Make a cross section and label parts.
- Get acquainted with 15 trees
- Make a plant press
- Collect and mount leaves and twigs of 10 trees.
- Choose and complete three optionals.
- Show others how you do one thing.
- Keep a neat and complete record.
- Exhibit your project at a 4-H fair.

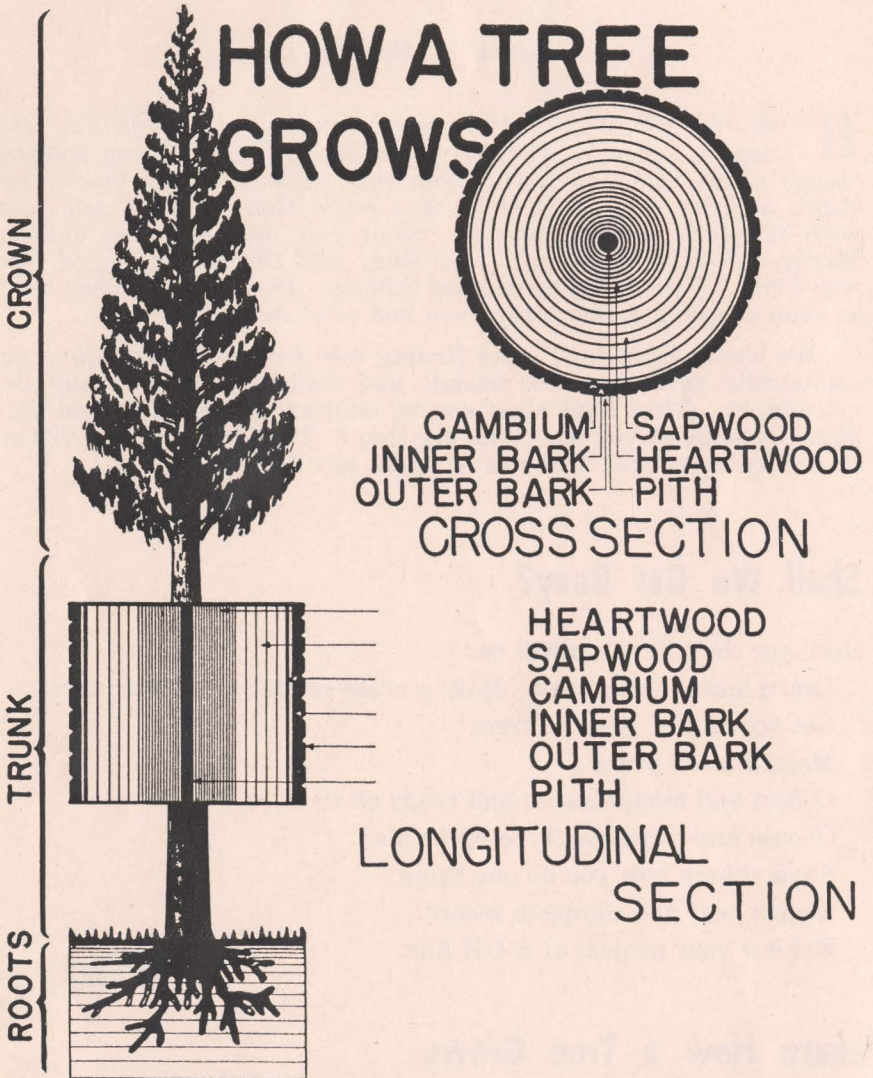
Learn How a Tree Grows

Cut a cross-section from a tree trunk or large branch and label the different parts. Answer the questions in your record book.

The crown, trunk, and roots are the main divisions of a tree. Its growing parts are the buds, root tips and cambium layer. Height growth and crown spread come from buds developing into new sets of twigs. Similar growth underground comes from

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the root tips. Diameter growth of the trunk, limbs, and roots is due to the cambium layer. There is no height growth on a tree trunk. Height growth is made at the tip of the crown.



From the soil the roots absorb moisture containing mineral nutrients. The sapwood carries these food materials to the leaves. They take in carbon dioxide from the air. With the aid of the sun's light and heat, the leaves manufacture foods for the tree. In the process they give off oxygen and moisture. The inner bark transports the foods from the leaves to other growing parts of the trees. The outer bark protects the tree and the inactive heartwood gives it strength.

Get Acquainted With Fifteen Trees

Make friends of the trees in your community. If you cannot find 15 different kinds, plan a club field trip to a community where there is more variety. All trees have scientific names as well as their common names. You need learn only the approved common names as listed below. Have your leader certify your record on tree identification.



The Identification Contest



Everyone likes contest games. Contests are fun, especially in tree identification. Try a contest among your own club members. See how much this helps you in learning the trees. Have several contests if possible. You may like the idea so well you will want your leader to ask the county extension agent about a tree identification contest at your 4-H fair.

Select your new tree friends from this list. First check the ones you already know. Then see if you can learn 15 new ones.

Deciduous trees:

ailanthus
ash, blue
ash, green
ash, white
basswood, American
birch, cutleaf weeping
birch, white
boxelder
catalpa, northern
cottonwood, eastern
elm, American
elm, Siberian
elm, slippery
flowering crab
hawthorn
honey locust
horsechestnut
Kentucky coffeetree
linden, Japanese
linden, little-leaf
locust, black
maple, Norway

maple, silver
maple, sycamore
mountain-ash, European
mulberry
oak bur
oak, pin
oak, northern red
oak, white
Osage-orange
poplar, Lombardy
poplar, silver
Russian-olive
sycamore
walnut, black
willow, black
willow, golden
willow, weeping
yellow poplar

Evergreen trees:

arborvitae, Oriental
fir, white
pine, Austrian

pine, Scotch
redcedar, eastern
spruce, blue
spruce, Norway
white-cedar, northern

Deciduous shrubs:

lilac
privet
Siberian pea
southernwood
staghorn sumac
syringa
tamarix

Evergreen shrubs:

arborvitae, pyramidal
juniper, common
juniper, creeping
juniper, Irish
juniper, Pfitzer
mugo pine
yew, English
yew, Japanese

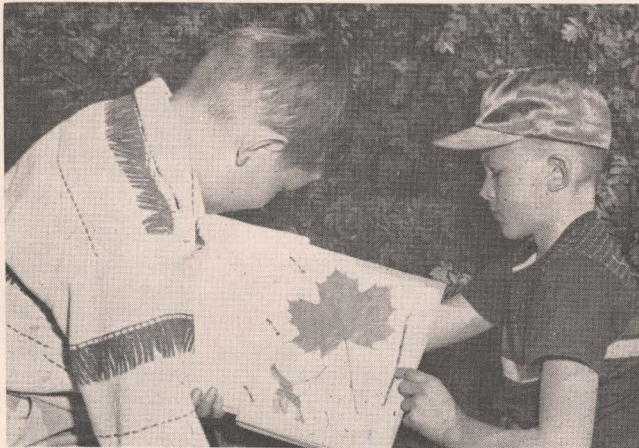
Make a Plant Press

You will need your own plant press when you begin collecting leaf and twig specimens. Lath or molding strips are more uniform materials than pieces from crates or boxes. Make your press frames 12 inches wide by approximately 18 inches long. The cross pieces should be no more than $1\frac{1}{2}$ inches apart. Use small nails or screws for fastenings. Cut two stiff cardboards to go just inside the frames. A local printing shop or building supply store may have heavy absorbent paper that will make good blotters. You will need about 15. Put your plant specimens between sheets of newspaper so they do not stick to the blotters. Adjustable web straps are the best binders.



Collect Leaves and Twigs

Make identification mounts of 10 trees. Let your aim be to show as many features of each tree as you can. Try to get leaves, twigs, flowers, and seed or fruit of each tree. Get good specimens. Keep them in your press until you are ready to mount them. Check specimens in your press every few days until they are dry. Fasten them on the mount cards with scotch tape or other material that you find works well. Complete the form on each card. Put your mounts in a folder and bring your record up to date. Keep your mounts and your record entries in the same order.



Choose Three Optionals

There are many other exciting things to do in forestry, perhaps too many for you to do them all. So what would you like to do? The optionals give you freedom to choose some things you want most to do. Look over the optionals on the following pages. Some are good for your club to do as a group and some are best done on an individual basis. Choose at least three you would like to do. Consult your leader on your choice of optionals.

Show Others How to Do One Thing

Nearly every day each of us teaches someone. We teach by telling or showing others how a thing is done. One of the best things about 4-H is that it helps us to be interesting and efficient teachers. It gives us chances for practice in showing others how to do things. Have your leader help you decide upon one thing you wish to show others how to do. Your leader will help you make plans. Then show your club or some other group how to do the things you have chosen.



Keep a Neat and Complete Record

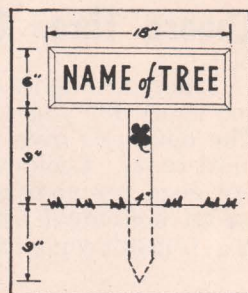
The record book provides space for accounts of all your project work. Your record is an important part of your project. Keep it complete. Be sure it is accurate. Make it as neat as you can. A good record is a sign of a good worker.

Exhibit Your Project at a 4-H Fair

The crowning part of your 4-H Club work is your fair exhibit. See that your project is completed and ready for display with all the others at the fair. Your exhibit will include your tree cross-section, plant press, mounted specimens, optional materials, and record book.

Make a Tree Name Sign

It is easy to make an attractive tree name sign. Use the diagram as a guide. Green lettering on white background is attractive. If your club wants a group optional, the members could make name signs for all the different trees in your community park or picnic grounds.



There is another interesting way to make tree labels. Use metal letter dies to stamp the tree names into thin metal plates. You will want aluminum or some other metal that does not rust. Attach the signs at about adult-eye level, using galvanized nails. If you drive the nails in tight, the tree begins to grow over the sign. Leave the nails extend about $\frac{3}{4}$ inch. This permits room for some trunk-diameter growth. Later the nails will need to be pulled out a little. Metal tree-name tags are suitable for city parks where it might be difficult to keep wooden signs in place.

Have Fun With Leaf Prints

Tree leaves are beautiful. With leaf prints, you can capture and retain their natural beauty.

Select leaves that are well formed and that do not have broken margins. If the leaves are dry, moisten them so they are not brittle. Take a sheet of paper somewhat larger than your leaf and grease one surface of the paper with a thin film of common lard. Hold the paper with greased surface downward above a wax candle flame. Hold it close enough to make the candle smoke, but do not set your paper on fire. Rotate the paper over the flame until the surface appears black and powdery, and you see no evidence of grease.

Lay the paper on a smooth surface with the sooty side up. Place a leaf on the soot with its top side down. Put a piece of newspaper over the leaf. Hold it firmly so the leaf will not move and rub it evenly with your fingertips. This will put an even covering of soot on the leaf face. Remove the newspaper and carefully pick up the leaf by its stem. Place it with the sooty face down on the item where you want the final print. Cover it with a clean paper. Hold it firmly and rub it evenly to get a good clear print. You may need to practice on a few to develop skill in making a clear print. After a print is dry it will not blur nor smudge.

Color your prints if you wish. Use crayons, water colors or textile paints, whichever is best suited to your purpose and materials.

Put the prints on paper, neckerchiefs, hankies, tablecloths, or napkins and you have them for keeps. They make fine gifts. Prints of five leaves you like especially well make a good collection.

You may know another method of making leaf prints. Use it if you like it better than the smoke method.

Transplant a Small Tree or Shrub

Are there some niches around your home you could fill in with trees or shrubs for landscaping or bird food and shelter? Ask your parents about transplanting some small forest trees for such a purpose. Let them help you decide where you can plant trees. The forest ranger can give you some tips on what trees to use. Perhaps he will tell you where to find good plants. If there is no ranger in your community, talk to the county agent, the fire warden, or soil conservationist.

When you select your plants, pick small ones. A tree less than a foot high is much easier to move than one that is 4 feet tall. Do the transplanting in early spring or in the fall. Get as much of the root system as you can. The tops of broad-leaf trees can be pruned back to balance the loss of some roots but this is not good practice on evergreens. Move the roots in a ball of dirt if it is possible. Set trees in the ground at the same level they were before. Settle the soil around the roots with water. Firm the soil and mulch around the tree with leaves, straw or sawdust. Water your trees as they need it and do not let weeds or grass choke them out.



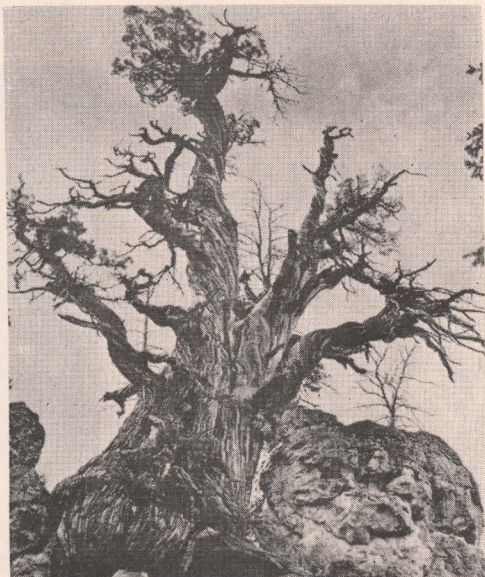
Help Make a Farm Tree Planting

Hundreds of Idaho farmers plant trees every spring. They plant for windbreaks, woodlots, game food and cover. Your club can have a fine experience by helping a farmer in your community plant his trees. He would likely be glad to have your help. You would learn how large farm - tree plantings are made. And the day can be planned to include a good measure of fun.



Report on an Outstanding Tree

There are outstanding trees in many communities of our state. They are outstanding and have local importance because of size, historical significance, unusual growth or, other features. Visit an outstanding tree if you have the chance. Find out all you can about it and get a picture for your record book.



Juniper Jardine, a Rocky mountain juniper, the largest of its kind. Its diameter is 8 feet, height 44½ feet, and approximate age 32000 years. Named for William T. Jardine, Secretary, U. S. Department of Agriculture, 1925-29.

Get Acquainted With Ten More Trees

Is yours a community with many different kinds of trees? If so, you may not want to stop with 15 new tree friends. Then get acquainted with 10 more trees. Collect and mount leaves and twigs of each one. When you know them well, have your leader certify your record.

Make Fuel for Christmas Fires

A fire of gaily colored flames brighten the festive cheer of the Christmas season. Since many modern homes have fireplaces, your club might sell treated pine cones or light wool fuels for family Christmas fires. Use boric acid for green flame, strontium nitrate for red, and copper sulfate for blue. Make each solution by dissolving the chemical in water at the rate of one pound per gallon. The boric acid will dissolve better if you heat the water first. Chemical supply houses are the cheapest sources of chemicals.



Select weathered cones and small weathered sticks for fuels.

They should be very dry for treating. Soak them for 15 to 20 minutes. Let the excess solution drain back into your container. Then spread the treated fuels out to dry. The colors will show up best if the treated fuels are burned on a low fire.

Name Your Own

Would you like to include in your 4-H project something that does not appear in Things to Do? You have that liberty through the Name Your Own optional. These are the only restrictions: Whatever you select must be directly related to forestry. Get your leader's consent before starting a Name Your Own optional. Keep a record your leader approves.



You May Want to Read

Tales of Paul Bunyan
The Story of Forests
The First Business in America
Trees for Tomorrow.

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