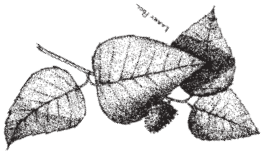

Tree Identification

There are two basic types of trees found in Iowa: *coniferous* and *deciduous* trees. Conifers are commonly called evergreens and have needle-like leaves that stay on the tree for more than one year. These needle-like leaves are coated with a waxy covering that helps the tree to conduct photosynthesis even when water availability is low. Conifers are cone-bearing trees (naked seeds in a cone structure). Some foresters and wood industry people refer to conifers as softwoods. Deciduous or broadleaf trees have leaves that they shed each fall and grow new ones each spring. Deciduous trees have protective seed coats. Foresters commonly refer to deciduous trees as hardwoods.

Identification – Keys to the Unknown

For the beginner there are two ways to find out the name of the unknown tree in question. You can use a key by going to www.Forestry.iastate.edu. This is simply a series of questions about the tree's features that lead you through various alternatives until you arrive at the name and description of the specimen in question. (Look at the 20 Common Trees of Iowa booklet.)

The other method of learning to identify trees is to learn some simple steps or characteristics of common trees by using your sense of sight, touch, smell, taste and hearing.

Leaves or needles, are the most commonly used clues for tree ID. Pines have needles that grow in groups or bundles, usually groups of 2 or 5. Spruce have single needles that grow directly from the twig and when rolled between your fingers feel like they are cut in quarters. Cedars have scale-like needles that are often sharp to the touch.

Deciduous trees have broad leaves that have many different characteristics. First, two groups of deciduous trees exists: those with simple leaves and those with compound leaves. Simple leaves are single leaves attached directly to the twig, such as a maple, oak, or cottonwood. Compound leaves grow in groups with a green stalk attached to the twig, such as ash, locusts, hickory or walnuts. Other ways to ID leaves involve looking at the leaf shape, size, and margins along the leaf edge (teeth).

The second quick "key" to tree ID involves the tree's outer skin or its bark. Most foresters ID trees this way, since little changes occur as the tree matures, especially when the leaves may be out of reach and vision. The bark of most trees can be described as being: smooth, scaly, platy, furrowed or shaggy. Color is another quick way to reference tree bark (example: white bark on white birches).

The third way to ID trees is to look at the tree's fruit. This includes not only edible fruits, but should include any structure that could hold the seeds. From fleshy fruits to nuts to pine cones.

The fourth way to identify trees is by the tree's overall shape. The silhouettes of many trees are quite distinctive from a distance. Common tree shapes are weeping, round, columnar, pyramidal, oval and vase-shaped.

The fifth way to ID trees is by the twigs and buds. Twigs and buds are often the only way to identify many trees (particularly small seedlings and saplings) during the winter and early spring. To use twigs you need to be familiar with terminology of the twig. The terminal bud is at the very tip of the twig, and is the place of concentrated height growth of a tree. The lateral buds are the buds found along the sides of the twigs. The buds hold the new leaves for next spring's growth. Just below the bud is a small leaf scar that shows where the leaves fell off last year. The arrangement of buds on a twig can be classified in two ways: opposite (buds growing across from each other on the twig), maples, ashes, and dogwoods are the most common with opposite buds. Other trees possess alternate growing buds (such as ash, walnut trees) and still others may have groups of buds at the terminal end (such as our native oaks).

Enclosed are sample sheets that describe common wood plant twigs and their quick and easy ID.

Can You Identify These Tree Leaves?

a 

b 

c 

d 

e 

f 

g 

h 

i 

(a)Chokecherry (b)Linden (c)Butternut (d)Hackberry (e) Serviceberry (f)Sugar Maple (g)Chinkapin (h)Sycamore (i)Silver Maple