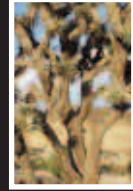
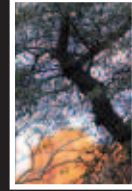


WOODY PLANTS IN NORTH AMERICA

John R. Seiler • John A. Peterson • Edward C. Jensen

SECOND EDITION



KENDALL/HUNT PUBLISHING COMPANY
Dubuque, Iowa

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Installation

The installation program should start automatically after inserting Disk 1 into your CD or DVD drive. If installation does not start automatically, double click on “My Computer.” Either right click on “Disk1” and select, “Autoplay,” double click “Disk1,” or explore “Disk1” and double click on “Setup.exe.”

System Requirements

Windows 98 or later
128 MB of RAM
1.5 Gigabytes of free hard disk space
CD-ROM or DVD drive

Web Sites

Visit our forest biology web site at:

www.cnr.vt.edu/dendro

Plant identification keys, online help with Dr. Dendro and numerous other features are available.

The software also allows users to select specific plant parts on which they wish to be quizzed. For example, if a user selects leaves, the first picture that will appear for the plant will be a leaf. Other plant parts can be viewed by clicking "Another Hint." If the leaves on the trees are beginning to fall off and the user can only identify trees by their leaves, they should try taking a quiz on twigs or bark only. This is probably the quickest way to familiarize themselves with a plant part they previously chose to ignore. If a user is very familiar with bud characteristics, but they are starting to flush, he/she can quiz on leaves only.

Users may also specify a particular family or genus (e.g., oaks) in which to be quizzed. This is a great way to study a group of trees of which you are having particular trouble.

About the Authors

John Seiler is the Shelton Short, Jr. Professor of Forestry at Virginia Tech where he has taught dendrology, forest biology, fire management, silviculture, tree physiology and water relations since 1985. John has received numerous college, university, national and international teaching and courseware development awards including the International Ernest L. Boyer Award for Innovative Excellence in Teaching, Learning and Technology.

John Peterson is a research specialist at Virginia Tech where he has taught dendrology since 1991. John has received college, university and national awards for teaching, courseware development and web site construction. He and John Seiler were awarded an XCaliber Award from the University for Excellence in Courseware Development.

Ed Jensen is an Elizabeth P. Ritchie Distinguished Professor at Oregon State University where he has taught dendrology, forest ecology, international forestry, and natural resource education since 1979. In addition to several college and university teaching and mentoring awards, Ed has received national teaching awards from the Society of American Foresters and the US Department of Agriculture.

Main Features of the Software

- Scientifically tested and proven to enhance woody plant identification and knowledge retention.
- Offers an in-depth look at 860 woody plants, both native and ornamental, found across North America.
- Nearly 20,000 color photographs of leaves (summer and fall foliage), flowers, fruits, twigs, bark, and form of the plant are included, with key distinguishing features annotated.
- Can be customized to display plants by specific states, USDA hardiness zones or Canadian Provinces.
- Users can navigate taxonomically, search for a species either by the common or scientific name, or browse through an entire list of species.
- Displays numerous multiple images of plant parts so users can develop a “feel” for normal field variation.
- For each plant part, similar-looking species can be compared side by side with distinguishing characteristics given.

Comparing Similar Species

Within an individual tree record, notice the bottom icon on the left. When the cursor flies over that icon, it is labeled "Look Alikes." By clicking on this icon, similar plant species will be displayed, as well as text summaries on how to best tell them apart. Clicking on the navigation arrows will call up additional similar species. This can be repeated for all of the different plant parts. In other words, one can examine how leaves, twigs, bark, fruit, flower, and form differ for all the "Look Alikes" shown. Simply click on the plant part you wish to compare (e.g., fruit), then click again on the "Look Alike" icon. The user can go directly to any of the look-a-like species by clicking on the look-a-like photo at any time.

Printing a Fact Sheet

In the lower right corner, within an individual tree record, is a printer icon. Clicking on this icon will launch the default web browser and display a one page color fact sheet for the species selected. Simply print the sheet from the default web browser. These sheets are the same fact sheets found at the Virginia Tech Dendrology web site (see below).

Quiz Section

One of the most useful features of Woody Plants of North America is its ability to allow users to test their skills in plant identification. The user will first probably want to create a list of species in which to be quizzed. The user should choose species of which he/she is familiar or species he/she is required to learn for a particular lab or class. This list can be updated as he/she learns more plants. To create a quiz list, click on the "Quiz" icon and then select "Update Your Quiz" from the next menu. The software comes with all plants listed in the quiz list. The user can start with a fresh list by selecting "Remove ALL from the Quiz" and then add a tree by selecting "Add a Plant to the Quiz." At this point, users can navigate to the tree they wish to add and click on it. If at any time they wish to restore the full list, they should click on "Add ALL to the Quiz."

Select a State

The program allows users to set up the software to highlight only the trees indigenous to a particular state, Canadian province or USDA hardiness zone. Very simply stated, the user can turn Woody Plants in North America into Woody Plants of Virginia, or any other state. Clicking the “Select State” button displays a list of all states, provinces, and zones. Selecting one of these areas displays a list of trees specific to that area. The user can click directly on this list and go to any of the trees. Navigation through the program will reveal that some families, genera and species are dimmed; this indicates that they are not found in the area selected. The user can, however, still look at them.

Examining a Species

Users can then get to a particular tree species in one of two ways. If they are familiar with the species name, they can navigate to the plant by selecting its family, then genus, then species. A user may also search for the plant by using the search function located in the lower left corner of the screen. Clicking on this button allows he/she to type in the name (common or scientific, including synonyms) or any part of a plant name. For example, if the user types in “oak,” all oaks and any other plant commonly known as an oak (such as poison-oak) will be returned in a window. Searching for “*Carya tomentosa*” will return *Carya alba*, since they are synonyms for the same species. Click on the search result and it goes directly to that species.

Within an individual species, icons on the left allow users to examine specific tree attributes (leaves, twigs, bark, etc.). Typically there are numerous examples of all plant parts. The user can find them by clicking on the arrows on the bottom right under the picture of plant parts. This feature illustrates the range in variation that one can expect to see in the field for a particular species. When a particular icon is dim, the user either already looked at that plant feature or no photo example exists for that plant part. A button in the extreme lower left allows the user to return to the main menu at any time.

- Full text description, range maps, critical distinguishing features, site information, and interesting tidbits are given for each species.
- A customizable, self-quizzing section allows users to evaluate their progress in plant identification at their own pace.
- Quizzes can be taken on all plant parts, or users can specify parts such as leaves or fruit.
- Quizzes allow users to select species to be included so they can practice only the plants of which they are interested.
- A nomenclature section familiarizes users with the terms used in the identification of plants.
- Latin name synonyms can be displayed for all species.
- One page, printable color fact sheets for each species allows users to print notes on specific trees.

About Woody Plants in North America

Woody Plants in North America is an interactive multimedia identification tutorial for woody plants found throughout North America. The software was developed over a ten-year period at Virginia Tech in cooperation with tree identification experts at Oregon State University, The Pennsylvania State University, and the University of Georgia. The main authors, John R. Seiler (Virginia Tech), John A. Peterson (Virginia Tech) and Edward C. Jensen (Oregon State), are all award-winning educators and software developers.

The software includes a morphology section that illustrates common terms used to describe twigs, leaves, flowers, fruit, bark, and form of woody plants. The main body of the tutorial contains over 20,000 photographs and full text descriptions of leaves, twigs, fruit, flowers, bark, and form for 860 species of woody plants. Numerous photographs are annotated to highlight the most critical distinguishing features. Both native and common ornamental woody plants are included. Multiple pictures of important distinguishing features help users develop a "feel" for normal variation expected in the field. Each feature of similar species can also be compared side by side with the most distinguishing features highlighted.

A quiz section allows users to evaluate their progress in identification. Quizzes can be customized by species or plant part, or can be broadly based. Additional hints (pictures) can also be examined if the identity is initially unclear. Users can continue looking through images until they can identify the plant or they give up. Misspellings in the botanical name are indicated, and if identified incorrectly, the correct species is indicated. The scientific names used in the program for a particular species are those accepted by the USDA Plants Database (<http://plants.usda.gov>). Synonyms are displayed while viewing a species by moving the cursor over the plant name.

Helpful Hints

As a result of extensive testing with students and subsequent developmental improvements, Woody Plants in North America is very easy to use. Simply navigate throughout the program by clicking on desired icons. Help screens are also available to explain various portions of the program.

Morphology Section

This section will familiarize the user with common terms used to identify woody plants. Sections include: leaves, flowers, fruits, twigs, bark and form. If a user is new to identifying woody plants, he/she should start with this section. Features are always shown using color images of actual specimens, not line drawings.