

Indiana Native Cedars:

Eastern red cedar (*Juniperus virginiana*) is the only cedar native to Indiana, and the only conifer native to the Whitewater Valley! Although none are planted in the Cedar Grove, these trees can be found around the property (look at number 7 on the Conifer Trail).

Exotic trees in the Cedar Grove:

- WESTERN RED CEDAR (*Thuja plicata*); native to the northwestern part of North America
- WHITE CEDAR (*Thuja occidentalis*); native to the northeastern part of North America

LARIX AVENUE

resistant to decay. Due to the pretty foliage of larches, they are often garden trees, and the Japanese larch is often a bonsai subject. Jim Cope first noticed the beauty of the golden larch while visiting his children at Westtown School in Westchester, Pennsylvania. He noticed that there were a few seedlings underneath the tree, so he pulled a few up, brought them back to Richmond, Indiana, and planted them on his property. He later encouraged his daughter to do the same while she was visiting her children at Westtown School.

Indiana native trees along Larix Avenue:

- TAMARACK (*Larix laricina*)

Exotic trees along Larix Avenue:

- COMMON LARCH (*Larix decidua*); native to the mountains of central Europe
- DAHURIAN LARCH (*Larix gmelinii*); native to eastern Asia
- JAPANESE LARCH (*Larix kaempferi*); native to Japan
- GOLDEN LARCH (*Pseudolarix kaempferi*); native to eastern China

Christmas trees. The 'pine scent' in many household cleaners actually comes from the essential oils of fir trees.

Indiana native trees along Abies Lane:

- FLOWERING DOGWOOD (*Cornus florida*)

Exotic trees along Abies Lane:

- EUROPEAN SILVER FIR (*Abies alba*); native to eastern Europe
- BALSAM FIR (*Abies balsamea*); native to eastern and central Canada and the northeastern U.S.
- GRECIAN FIR (*Abies cephalonica*); native to Greece
- SHENSI FIR (*Abies chensiensis*); native to China and India
- WHITE FIR (*Abies concolor*); native to the western U.S.
- TURKISH FIR (*Abies equi-trojani*); native to the Mediterranean
- ERNEST FIR (*Abies ernestii*); native to China
- GRAND FIR (*Abies grandis*); native to the northwest U.S. and British Columbia
- KOREAN FIR (*Abies koreana*); native to Korea
- CAUCASIAN FIR (*Abies nordmanniana*); native to the mountains of eastern Europe
- SIBERIAN FIR (*Abies sibirica*); native to eastern Europe, Russia, and China

SPRUCE AND PINE PLANTING

Spruces are found throughout the northern hemisphere, although none are native to Indiana. CEC has quite a few different species of spruce in this area of the property, coming from a wide range of locations. Spruces are important timber trees, and some species, such as Norway and Serbian spruce, are used as Christmas trees. Twenty-five different species of spruce have been planted at CEC.

Exotic spruces in this section:

- ALCOCK SPRUCE (*Picea alcoquiana*); native to the mountains of Japan
- ENGELMANN SPRUCE (*Picea engelmannii*); native to western North America
- KOYAMA SPRUCE (*Picea koyamai*); native to Japan
- MEYER SPRUCE (*Picea meyeri*); native to China
- OMORIKA SPRUCE (*Picea omorika*); native to Serbia and Bosnia
- COLORADO BLUE SPRUCE (*Picea pungens*); native to the western U.S.
- YEZO SPRUCE (*Picea jezoensis*); native to eastern Asia



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Pines are also found throughout the northern hemisphere. Pines are used for timber, pulp for paper, tar, and turpentine. More species of pine have been planted at CEC than any other type of tree, 46 different species!

Indiana native pines in this section:

- EASTERN WHITE PINE (*Pinus strobus*)

Exotic pines in this section:

- BRISTLE CONE PINE (*Pinus aristata*); native to Colorado, Arizona, and New Mexico
- CHINESE WHITE PINE (*Pinus armandii*); native to China, Japan, and Taiwan
- LACEBARK PINE (*Pinus bungeana*); native to northwestern China
- JAPANESE RED PINE (*Pinus densiflora*); native to eastern Asia
- LIMBER PINE (*Pinus flexilis*); native to the mountains of western North America
- JEFFERY PINE (*Pinus jefferyi*); native to the mountains of the U.S. west coast
- BOSNIAN PINE (*Pinus leucodermis*); native to the western Balkan peninsula
- AUSTRIAN PINE (*Pinus nigra*); native to the mountains of the northeastern Mediterranean
- MACEDONIAN PINE (*Pinus peuce*); native to the Balkan peninsula
- PONDEROSA PINE (*Pinus ponderosa*); native to the northwestern U.S.
- RED PINE (*Pinus resinosa*); native to the northern U.S. and southern Canada
- PITCH PINE (*Pinus rigida*); native to the eastern U.S.
- CHINESE PINE (*Pinus tabuliformis*); native to China and Korea
- SCOTCH PINE (*Pinus sylvestris*); native to Europe
- MOUNTAIN PINE (*Pinus uncinata*); native to the mountains of Europe
- HIMALAYAN WHITE PINE (*Pinus wallichiana*); native to the Himalayan mountains

Douglas firs (*Pseudotsuga menziesii*) are also planted in this section. These trees are abundant throughout western North America, and can be found in temperate forests all over the world. While we call these trees firs, the genus name (*Pseudotsuga*) means "false hemlock". Jim Cope had an affinity for this species, and at Jim's memorial service, each guest was given a Douglas fir seedling to take home.

Indiana native trees in this section:

- YELLOW BUCKEYE (*Aesculus flava*)
- DOWNY SERVICEBERRY (*Amerlanchier sp.*)
- KENTUCKY COFFEE TREE (*Gymnocladus dioica*)
- SWEETGUM (*Liquidambar styraciflua*)
- BALD CYPRESS (*Taxodium distichum*)

MAPLES

Sugar maples are native to Indiana and can be found all over CEC's property. Sugar maples are very shade tolerant trees and can live for long periods of time beneath the forest canopy, eventually filling spaces left by tree fall gaps. Sugar maple is usually regarded as a climax species in eastern deciduous forests.

This section of 28 sugar maples (*Acer saccharum*) was planted in 1993. They are a super sweet variety! The Cope's started making maple syrup in the late 1980s, and this process has grown into Maple Syrup programs that are offered every year February through March.

During these programs, students learn the origins of pure maple syrup, the inner workings of trees, how seasonal cycles affect trees, and why we depend on trees for more than just syrup.

NUT GROVE

Black Walnut (*Juglans nigra*) is one of the most durable hardwoods in the United States. Walnut wood is popular for furniture, and the trees are popular ornamentals. The nuts of black walnuts are eaten by humans. The shells of walnuts have a variety of uses, such as a non-slip agent in automobile tires, a filtering agent for scrubbers in smoke stacks, and a cleaning agent for jet engines.

Indiana native trees in this section:

- SHELLBARK HICKORY (*Castanea mollissima*)
- BLACK WALNUT (*Juglans nigra*)

Exotic trees in this section:

- PERSIAN WALNUT (*Juglans regia*); native to the Balkans, Himalayas, and China
- CHINESE CHESTNUT (*Castanea mollissima*); native to China

Thank you to Maggie Ashmore for her incredible work with Jim's trees and for developing this brochure!