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Barbour

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(54) **OAK TREE NAMED 'HOPEULIKIT'**

(50) Latin Name: ***Quercus lyrata***
Varietal Denomination: **Hopeulikit**

(71) Applicant: **John Barbour**, Hawkinsville, GA (US)

(72) Inventor: **John Barbour**, Hawkinsville, GA (US)

(73) Assignee: **Athena Trees, Inc.**, Hawkinsville, GA (US)

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USPC **Plt./225**

(58) **Field of Classification Search**
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Primary Examiner — June Hwu
(74) *Attorney, Agent, or Firm* — C. A. Whealy

(57) **ABSTRACT**

A new and distinct cultivar of Oak tree named 'Hopeulikit', characterized by its upright branching habit and upright oval tree form; freely branching habit with numerous lateral branches providing a full and densely foliated appearance; and glossy dark green-colored leaves that become purple red to orange in color during the autumn.

6 Drawing Sheets

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Botanical designation: *Quercus lyrata.*
Cultivar denomination: 'HOPEULIKIT'.

BACKGROUND OF THE INVENTION

The present invention relates to a new and distinct cultivar of Oak tree, botanically known as *Quercus lyrata*, commercially referred to as Swamp Post Oak or Overcup Oak and hereinafter referred to by the name 'Hopeulikit'.

The new Oak tree is a product of a planned breeding program conducted by the Inventor in Pulaski and Oconee Counties, Ga. The objective of the breeding program is to create new Oak trees appropriate for urban landscapes that have an upswept branching habit and attractive autumn leaf color.

The new Oak tree originated from an open-pollination of an unnamed selection of *Quercus lyrata*, not patented, as the female, or seed, parent with an unknown selection of *Quercus lyrata* as the male, or pollen, parent. The new Oak tree was discovered and selected by the Inventor as a single plant from within the progeny of the stated open-pollination in a controlled environment in Pulaski County, Ga. in November, 2004.

Asexual reproduction of the new Oak tree by grafting in a controlled environment in Oconee County, Ga. has shown that the unique features of this new Oak tree are stable and reproduced true to type in successive generations.

SUMMARY OF THE INVENTION

Trees of the new Oak have not been observed under all possible environmental and cultural conditions. The phenotype may vary somewhat with variations in environmental conditions such as temperature and light intensity without, however, any variance in genotype.

The following traits have been repeatedly observed and are determined to be the unique characteristics of 'Hopeulikit'. These characteristics in combination distinguish 'Hopeulikit' as a new and distinct Oak tree:

1. Upright branching habit and upright oval tree form.
2. Freely branching habit with numerous lateral branches providing a full and densely foliated appearance.
3. Glossy dark green-colored leaves that become purple red to orange in color during the autumn.

Trees of the new Oak can be compared to trees of the female parent selection. Trees of the new Oak differ primarily from trees of the female parent selection in the following characteristics:

1. Trees of the new Oak are upright oval in shape with narrow branch angles whereas trees of the female parent selection are broadly rounded in shape with much wider branch angles.
2. Leaves of trees of the new Oak are glossier and darker green in color than leaves of trees of the female parent selection.
3. Leaves of trees of the new Oak become purple red to orange in color during the autumn whereas leaves of trees of the female parent selection do riot change color in the autumn.

Trees of the new Oak can also be compared to trees of *Quercus lyrata* 'Red Baron', not patented. Trees of the new Oak and 'Red Baron' differ primarily in the following characteristics:

1. Trees of the new Oak are upright oval in shape with narrow branch angles whereas trees of 'Red Baron' are broadly oval in shape with wider branch angles.
2. Leaves of trees of the new Oak are glossier and darker green in color than leaves of trees of 'Red Baron'.
3. Leaves of trees of the new Oak and 'Red Baron' differ in autumn leaf color as leaves of trees of 'Red Baron' become greyed orange to greyed red in color during the autumn.

BRIEF DESCRIPTION OF THE PHOTOGRAPHS

The accompanying colored photographs illustrate the overall appearance of the new Oak tree showing the colors

as true as it is reasonably possible to obtain in colored reproductions of this type. Colors in the photographs may differ slightly from the color values cited in the detailed botanical description which accurately describe the colors of the new Oak tree.

The photograph on the first sheet is a side perspective view of a typical mature tree of 'Hopeulikit' grown during the summer in an outdoor nursery.

The photographs on the second sheet are side perspective views of typical mature trees of 'Hopeulikit' (left) and 'Red Baron' (right) grown during the winter in an outdoor nursery showing the differences in branch angle orientation and overall tree form.

The photographs on the third sheet are side perspective views of typical young trees of 'Hopeulikit' (left) and 'Red Baron' (right) grown during the summer in an outdoor nursery showing the differences in fullness, density and overall tree form.

The photograph on the fourth sheet is a close-up view of the upper surfaces of typical leaves of 'Hopeulikit' (left) and 'Red Baron' (right) grown during the summer in an outdoor nursery showing the differences in leaf glossiness and color.

The photograph on the fifth sheet is a close-up view of the upper surfaces of typical leaves of 'Hopeulikit' grown during the autumn in an outdoor nursery.

The photographs on the sixth sheet are close-up views of typical mature trees of 'Hopeulikit' (left) and 'Red Baron' (right) grown during the winter in an outdoor nursery showing the differences in branch angle orientation.

DETAILED BOTANICAL DESCRIPTION

The aforementioned photographs and following observations, measurements and values describe trees grown in an outdoor nursery in Pulaski County, Ga. and under cultural practices typical of commercial Oak tree production. Trees used in the photographs and description were ten years old. During the production of the trees, average day temperature was 24.5° C. and average night temperature was 11.1° C. In the following description, color references are made to The Royal Horticultural Society Colour Chart, 2007 Edition, except where general terms of ordinary dictionary significance are used.

Botanical classification: *Quercus lyrata* 'Hopeulikit'.

Parentage:

Female, or seed, parent.—Unnamed selection of *Quercus lyrata*, not patented.

Male, or pollen, parent.—Unknown selection of *Quercus lyrata*, not patented.

Propagation:

Type.—By grafting scions of the new Oak tree onto an unnamed selection of *Quercus lyrata* rootstock.

Tree description:

Tree form and growth habit.—Deciduous tree with upswept branching habit and upright oval tree form; freely branching habit with about 62 lateral branches developing per tree; full and densely-foliated appearance; vigorous growth habit; to date, flower initiation and development have not been observed on trees of the new Oak.

Tree height.—About 11.89 meters.

Tree width (*spread*).—About 6.83 meters.

Trunk caliper.—About 34.3 cm.

Growth rate, height.—About 68 cm per year.

Growth rate, caliper.—About 3.43 cm per year.

Branch angle orientation.—Lower canopy branches, about 28° from vertical; upper canopy branches, about 8° from vertical.

Internode length.—About 3.2 cm on one-year old wood.

Lateral branch color.—Immature bark: Close to between 183A and 200B. Mature bark: On one-year growth, close to between 197A and 198A with small fissures, close to 202B; on two to three-year growth, close to between 197A and 198A; underneath, close to 198B to 198C.

Immature bark texture.—Smooth, glabrous.

Mature bark texture.—Rough, woody; flaky.

Branch lenticels.—Size: On one-year growth, about 0.75 mm to 1 mm by 0.75 mm to 1 mm; on three to four-year old growth, about 1.75 mm to 2.25 mm by 0.5 mm. Shape: On one-year growth, circular; on three to four-year old growth, ovoid to oblong. Color: On one-year growth, close to 199D; on three to four-year old growth, close to 199D.

Dormant leaf buds.—Length: About 2.5 mm. Diameter: About 2.6 mm. Shape: Broadly ovate with rounded apex. Texture: Slightly pubescent. Color: Close to 200C.

Leaf arrangement.—Alternate, simple.

Leaf length.—About 17.73 cm.

Leaf width.—About 10.64 cm.

Leaf shape.—Obovate.

Leaf apex.—Acute to obtuse.

Leaf base.—Cuneate.

Leaf margins.—Entire; shallowly to deeply three to five-lobed with wide rounded sinuses.

Leaf venation.—Pinnate.

Leaf texture, upper surface.—Smooth, glabrous.

Leaf texture, lower surface.—Puberulent.

Leaf luster, upper surface.—Very glossy.

Leaf luster, lower surface.—Glossy.

Leaf color.—When developing, upper surface: Close to 144A. When developing, lower surface: Close to 143C and 143D. Fully developed, upper surface: Close to 139A; in the autumn, close to 187B and between 173A and N170A; venation, close to 160A. Fully developed, lower surface: Close to 191A; in the autumn, close to 182B; venation, close to 160A.

Leaf petioles.—Length: About 16.47 cm. Diameter: About 2.38 mm. Texture, upper and lower surfaces: Smooth, glabrous. Color, upper surface: Close to 153A and 60A. Color, lower surface: Close to 145A.

Temperature tolerance: Trees of the new Oak have been observed to tolerate high temperatures about 40.5° C. and low temperatures about −11.7° C. when grown in USDA Hardiness Zone 8.

Pathogen & pest resistance: Trees of the new Oak have been observed to relatively resistant to Powdery Mildew (*Erysiphe alphitoides*) during the mid to late summer. Trees of the new Oak have not been observed to be resistant to pests and other pathogens common to Oak trees.

It is claimed:

1. A new and distinct Oak tree named 'Hopeulikit' as illustrated and described.

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