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Beineke

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[54] **DISTINCT VARIETY OF BLACK WALNUT TREE**

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[58] **Field of Search** Plt./32

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[57] **ABSTRACT**

A new and distinct cultivar of black walnut tree (*Juglans nigra* L.) which is distinctly characterized by average growth rate, very strong central stem tendency, earlier than average in time of leafing, and excellent straightness (little sweep and few crooks) thereby producing excellent timber qualities. The new variety has outstanding nut qualities as well, such as abundant annual crops of small nuts, begins nut-bearing early in life of tree, average 3 to 4 nuts per cluster, and produces kernels which exceed about eighteen (18) percent of nut weight. The nuts are small and ripen late. The pistillate flowers mature very late while pollen maturity is very early. There is no overlap in female and male flowering. Flowering begins very early in the life of the tree. This new variety of black walnut tree was discovered by the applicant near Huron in Lawrence County, Ind., in a cultivated area. It occurred as a wild tree growing on land managed for timber-growing purposes and was discovered in the course of a search for unique and high quality black walnut trees to be utilized in breeding for outstanding timber producing potential. This selection has been designated as BW44 in records maintained on the performance of grafts made from the original selection and will be known henceforth as Lawrence-2.

3 Drawing Figures

DESCRIPTION OF THE DRAWINGS

FIG. **1** is a photograph showing the timber form of Lawrence-2.

FIG. **2** is a photograph showing a twig with nuts attached from Lawrence-2.

FIG. **3** is a photograph showing leaves from Lawrence-2.

BACKGROUND OF THE INVENTION

After the original clone was selected, and assigned an identity number of BW44, the aforesaid tree was reproduced by collecting scions from it and grafting these onto common black walnut rootstocks at Martell Forest, Purdue University. These asexual reproductions ran true to the parent tree and to each other in all respects.

The botanical details of this new and distinct variety of walnut tree are as follows:

Tree:

Size.—Large.

Vigor.—Vigorous.

Growth rate.—Slower than average, much slower than Purdue 1 — 1% smaller in diameter than the average of selected clones planted the same year, 8% shorter than the average, and less cubic foot volume than the average.

Form.—Excellent timber form, slightly better than Purdue 1 — usually ranks first in form — 58% straighter than average on a rating scale of 1 to 5. Few crooks. A short compact crown. Short bole, but good diameter. Excellent form for plantation tree.

Trunk:

Bark.—Dark brown to gray.

Texture.—Interlacing ridges.

Branches:

Diameter.—Large.

Length.—Long.

Branch angle.—Lower branches — average — 54 deg.

Foliage.—Quantity — abundant. Density — heavy.

Leaves:

Compound leaves.—Size — longer than average; average length — 18".

Leaflets.—Size — larger than average; average length — $4\frac{3}{8}$"; average width — $1\frac{3}{4}$"; average number of leaflets — 20; shape — lanceolate; acutely pointed. Thickness — thin; texture — smooth; margin — serrated; petiole — short; color — topside — dark green; underside — light green.

Anthracnose resistance.—Better than average on a rating scale of 1 to 5.

Time of leafing.—Early — averages 4 days earlier or 39% earlier than average.

Flowering habit:

Age at which tree starts producing catkins.—Very early.

Number of catkins produced.—Abundant.

Size of catkins.—Average.

Time of pollen shed.—Very early.

Age at which tree starts producing pistillate flowers—Very early.

Number of pistillate flowers produced by young trees—Abundant.

Number of pistillate flowers produced by mature trees.—Abundant.

Lateral shoots producing pistillate flowers.—Abundant.

Number of pistillate flowers per inflorescence.—4 and 5.

Timing of pistillate flower receptivity.—Very late.

Coincidence of staminate and pistillate bloom.—None.

Nut crop:

Bearing.—Annual.
Productivity.—Heavy.
Ripening period.—Late.
Evenness of maturity (period between first and last nuts are ready for harvest).—Even.
Quality.—Very good.
Distribution of nuts on tree.—Throughout.

Hull:

Outer surface.—Smooth.
Form.—Round.
Thickness.—Medium.
Size.—Small; average length — 2-1/32"; average diameter in suture plane — 1-15/16"; average diameter cheek to cheek — 2-3/32".

Nut:

Size.—Small; average length — 1¼"; average diameter in suture plane — 1¼"; average diameter cheek to cheek — 1-15/32".
Uniformity of size.—Uniform.
Form.—Rounded.
Blossom end.—Rounded.
Basal end.—Rounded.
Weight.—Dry weight of ten nuts — 161.3 gm; dry weight of ten kernels — 30.3 gm; average percentage kernel to nut — 18.8%.

Thickness of shell.—Medium.
Fill.—Good.

Kernel:

Size.—Large.
Plumpness.—Plump.
Shrivel.—None.
Flavor.—Good.
Color.—Light.

The walnut tree and its nuts herein described may vary in slight detail due to climatic and soil conditions under which the variety may be grown; the present description being of the variety as grown near West Lafayette, Ind.

I claim:

1. A new and distinct variety of black walnut tree substantially as illustrated and described which has excellent timber quality, average in growth rate, has strong central stem tendency, little sweep, few crooks; earlier than average in time of leafing, pistillate flowers very late, pollen sheds very early, produces abundant annual crops of small nuts; averages 3 to 4 per cluster, the percentage of weight of kernel to nut averages approximately 18.8 percent; nut bearing begins early in life of tree.

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FIG.1

FIG. 2

FIG. 3