

(12) **United States Plant Patent**
Probasco et al.

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(54) **HOP PLANT NAMED ‘HBC 353’**

(50) Latin Name: *Humulus lupulus*
Varietal Denomination: **HBC 353**

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USPC **Plt./236**
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See application file for complete search history.

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(57) **ABSTRACT**
A new hop plant named ‘HBC 353’ is disclosed. ‘HBC 353’ is used for its exceptional and unique aromatic qualities.

4 Drawing Sheets

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Genus and species: *Humulus lupulus*.
Variety denomination: ‘HBC 353’.

STATEMENT REGARDING FEDERALLY
SPONSORED RESEARCH OR DEVELOPMENT

None

BACKGROUND OF THE INVENTION

‘HBC 353’ is a product of a controlled breeding program carried out by the inventors in the Yakima Valley of Washington State. ‘HBC 353’ was one of several seedlings resulting from a controlled cross made in 1999 with female parent ‘YCR 1’ (unpatented, AHTANUM® brand name) and male parent ‘F10M-001’ (unpatented). Seedling plants from this cross were planted in 2000 and screened for disease resistance and sex in a greenhouse and field nursery near Granger, Wash. A single plant of ‘HBC 353’ was selected in 2003. In 2004 ‘HBC 353’ was expanded by asexual tissue culture propagation from 7 to 30 plants in an evaluation block near Toppenish, Wash. In 2017 ‘HBC 353’ was further expanded by asexual tissue culture propagation to a 1 acre test block near Toppenish, Wash. The ‘HBC 353’ plants have now been observed and evaluated for several years. Throughout several generations of asexual propagation, ‘HBC 353’ has been observed to retain its distinctive characteristics and remain true to type.

COMPARISON OF ‘HBC 353’ TO PARENT
PLANT AND COMARISON CULTIVAR

Table 1. below, sets forth some of the distinguishing characteristics of ‘HBC 353’ as compared to its female parent ‘YCR 1’, and to the ‘Chinook’ cultivar as a closely comparable cultivar.

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TABLE 1

	INSTANT CV. ‘HBC 353’	FEMALE PARENT ‘YCR 1’	COMPARISON CV. ‘CHINOOK’
Alpha (% of cone weight)	7.5-9	5.7-6.3	11.5-15
Beta (% of cone weight)	8-10	5-6.5	3-4
Co-humulone	21-24	30-35	27-31
(% of alpha acids)			
Total Oil (mL/100 g)	1.1-1.7	0.8-1.2	1.0-2.5
Aroma Profile	Herbal, Floral, Woody, Green Tea, Grassy	Citrus (Grapefruit), Earthy, Floral	Grapefruit, Spice, Pine

BRIEF DESCRIPTION OF THE PHOTOGRAPHS

FIG. 1 illustrates a mature ‘HBC 353’ hop plant grown on a trellis;
FIG. 2 illustrates cross-sectioned cones of the ‘HBC 353’ hop plant;
FIG. 3 illustrates whole cones and a leaf of the ‘HBC 353’ hop plant; and
FIG. 4 illustrates a bine on the mature ‘HBC 353’ hop plant.
The colors of these illustrations may vary with lighting conditions and, therefore, color characteristics of this new variety should be determined with reference to the observations described herein, rather than from these illustrations alone.

DETAILED BOTANICAL DESCRIPTION

The following description is based on observations made during the 2014-2017 growing seasons at Toppenish, Wash.

It should be understood that the characteristics described will vary somewhat depending upon cultural practices and climatic conditions, and can vary with location and season. Quantified measurements are expressed as an average of measurements taken from a number of individual plants of the new variety. The measurements of any individual plant or any group of plants, of the new variety may vary from the stated average. Color code designations are by reference to The R.H.S. Colour Chart, 4th ed., Copyright 2001, published by The Royal Horticultural Society of Great Britain. Ploidy: Diploid.
Sex: Female.
Use: Brewing beer and ale.
Harvest date: September 1st to 14th (during 2004 to 2017 growing seasons at Toppenish, Wash.).
Yield: Average yield is 1800 to 2500 kg/hectare.
Plant shape: Climbing bine, cylindrical growth.
Disease reaction: Powdery Mildew—Tolerant.
Time of flowering: Mid to Late July.
Oil analytical characteristics (averages):

% Alpha Acid (% cone weight)	7.5 to 9%
% Beta Acid (% cone weight)	8 to 10%
% Cohumulone (% alpha acids)	21 to 24%
Total Oil (ml/100 g of cones):	1.1 to 1.7% Oil
Hop Storage Index	<25%

Bine:
Color.—144A.
Stripe present.—No.
Stripe color.—N/A.
Stipule direction.—Up.
Stipule color.—145A.
Bine diameter.—10 mm at base; 8 mm at nine feet; and 8 mm at terminal end of eighteen feet.
Anthocyanin coloration on main bine.—Medium.
Average lateral length (on middle third of plant).—100 cm.

Average laterals length (on upper third of plant).—100 cm.
Lateral density (on middle third of plant).—Medium (two laterals per node).
5 Leaf:
Arrangement.—Opposite.
Shape.—Palmate.
Average length of mature leaf.—11.0 cm.
Average width of mature leaf.—10.5 cm.
10 Color of mature leaf upper surface.—141A.
Color of mature leaf lower surface.—141B.
Number of lobes.—5.
Margin.—Serrate.
Serrations per inch.—5 (typically).
Average petiole length (of mature leaf).—28 mm.
15 Average petiole diameter (of mature leaf).—0.8 mm.
Petiole color at base.—145A.
Venation.—Palmate.
Leaf blistering (on upper side of blade).—Weak to Medium.
20 Cone:
Avg. length.—32 mm.
Avg. diameter.—14 mm.
Bract tip color.—141A.
25 Bract base color.—141A.
Bracteole color.—145A.
Cone shape.—Oval.
Bract shape.—Obtuse.
Bract tip shape.—Cuspidate.
30 Bract tip position.—Alternating.
Bracteole shape.—Obtuse.
Bracteole length.—19 mm.
Bracteole width.—11 mm.
Lupulin glands shape.—Peduncutlated oblong polyps.
Lupulin glands number per cone.—Moderate to many.
35 Lupulin glands color.—6A.
The invention claimed is:
1. A new and distinct Hop plant as illustrated and described herein.

* * * * *



FIG. 1



FIG. 2

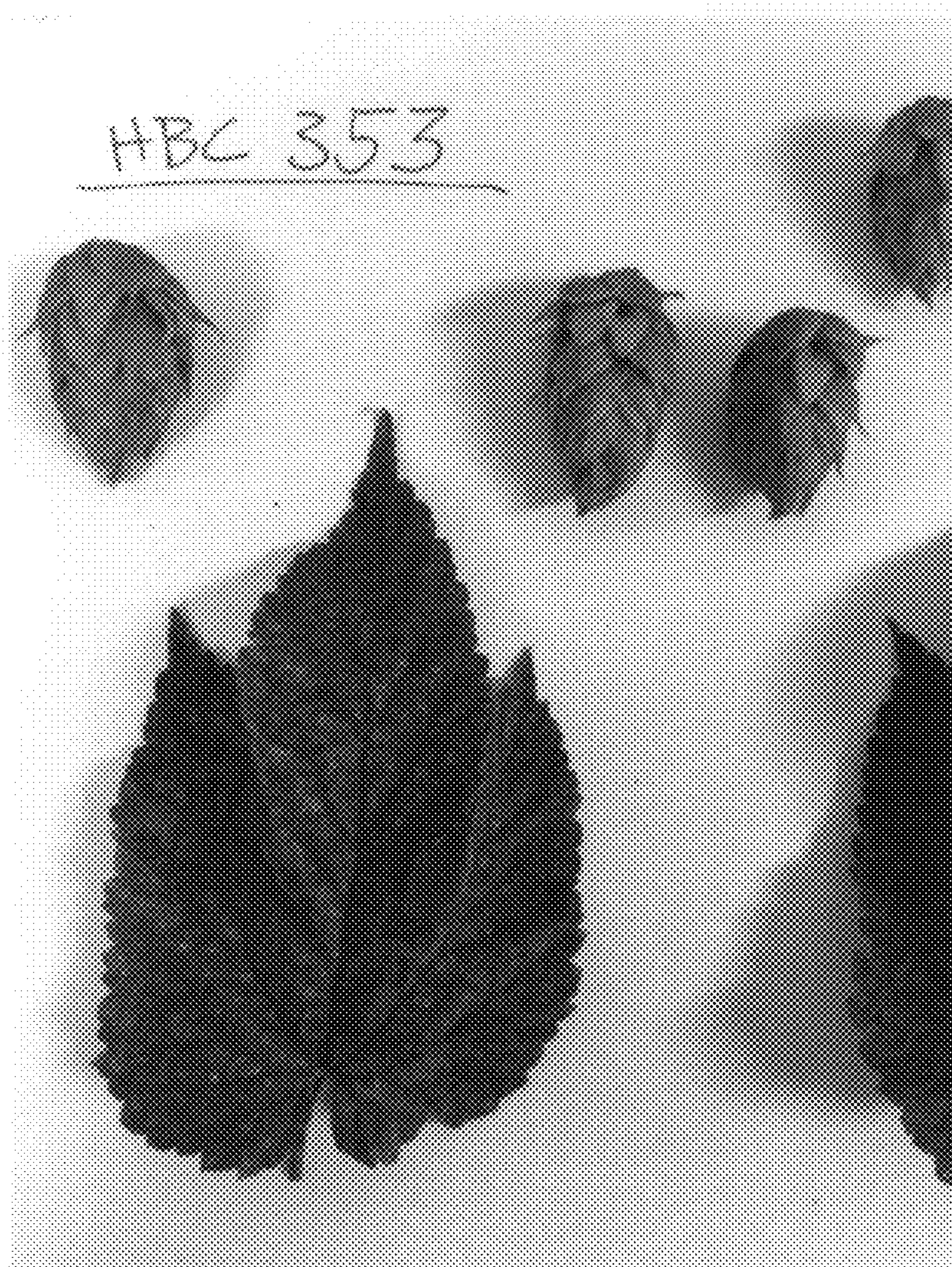


FIG 3



FIG 4