

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

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(54) **HOP PLANT NAMED ‘HBC 630’**

(50) Latin Name: *Humulus lupulus*  
Varietal Denomination: **HBC 630**

(71) Applicant: **HOP BREEDING COMPANY,**  
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patent is extended or adjusted under 35  
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(52) **U.S. Cl.**  
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(2013.01)

(58) **Field of Classification Search**  
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See application file for complete search history.

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(57) **ABSTRACT**  
A new hop plant named ‘HBC 630’ is disclosed. ‘HBC 630’  
is used for its exceptional and unique aromatic qualities.

**6 Drawing Sheets**

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Genus and species: *Humulus lupulus*.  
Variety denomination: ‘HBC 630’.

STATEMENT REGARDING FEDERALLY  
SPONSORED RESEARCH OR DEVELOPMENT

None

BACKGROUND OF THE INVENTION

‘HBC 630’ is a product of a controlled breeding program  
carried out by the inventors in the Yakima Valley of Wash-  
ington State. ‘HBC 630’ was one of several seedlings  
resulting from a controlled cross made in 2008 with female  
parent ‘YCR 5’ (U.S. Plant Pat. No. 12,404) and male parent  
‘21-10-21’ (unpatented). Seedling plants from this cross  
were planted in 2009 and screened for disease resistance and  
sex in a greenhouse and field nursery near Toppenish, Wash.  
A single plant of ‘HBC 630’ was selected in 2011. In 2012  
‘HBC 630’ was expanded by asexual tissue culture propa-  
gation to 14 plants in an evaluation block near Toppenish,  
Wash. In 2014 ‘HBC 630’ was further expanded by asexual  
tissue culture propagation to a 1 acre test block near Top-  
penish, Wash. The ‘HBC 630’ plants have now been  
observed and evaluated for several years. Throughout sev-  
eral generations of asexual propagation, ‘HBC 630’ 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 630’ as compared to its female  
parent ‘YCR 5’, and to the ‘Chinook’ cultivar as a closely  
comparable cultivar.

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TABLE 1

|                                   | INSTANT<br>CV.<br>‘HBC 630’                                                                               | FEMALE<br>PARENT<br>‘YCR 5’          | COMPARISON<br>CV.<br>‘CHINOOK’ |
|-----------------------------------|-----------------------------------------------------------------------------------------------------------|--------------------------------------|--------------------------------|
| Alpha (% of cone<br>weight)       | 13.6-14.0                                                                                                 | 15-18                                | 11.5-15                        |
| Beta (% of cone<br>weight)        | 5.6-6.3                                                                                                   | 4.3-5.3                              | 3-4                            |
| Co-humulone (% of<br>alpha acids) | 23.5-26.0                                                                                                 | 22-26                                | 27-31                          |
| Total Oil (mL/100 g)              | 2.5-3.0                                                                                                   | 1.3-1.7                              | 1.0-2.5                        |
| Aroma Profile                     | Stone Fruit<br>(Cherry),<br>Tropical, and<br>Citrus, with<br>distinct Cherry/<br>Raspberry<br>Candy aroma | Mild, Citrus,<br>with Piney<br>notes | Grapefruit,<br>Spice, Pine     |

BRIEF DESCRIPTION OF THE PHOTOGRAPHS

FIG. 1 illustrates a mature ‘HBC 630’ hop plant grown on  
a trellis;

FIG. 2 illustrates whole cones and cross sections of cones  
of the ‘HBC 630’ hop plant;

FIG. 3 illustrates the leaves of a mature ‘HBC 630’ hop  
plant;

FIG. 4 illustrates bine on a mature ‘HBC 630’ hop plant;

FIG. 5 illustrates attached leaves and cones on a mature  
‘HBC 630’ hop plant; and

FIG. 6 illustrates attached leaves and cones on a mature  
‘HBC 630’ 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 2012-2017 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.  
Yield: Average yield is 2800 to 2150 kg/hectare.  
Plant shape: Climbing bine, cylindrical growth.  
Disease reaction:  
    *Powdery mildew*.—Resistant.  
Time of flowering: Mid to Late July.  
Oil analytical characteristics (averages):

|                                |                 |
|--------------------------------|-----------------|
| % Alpha Acid (% cone weight)   | 13.6 to 14.0%   |
| % Beta Acid (% cone weight)    | 5.6 to 6.3%     |
| % Cohumulone (% alpha acids)   | 23.5 to 26.0%   |
| Total Oil (ml/100 g of cones): | 2.5 to 3.0% Oil |
| Hop Storage Index              | <20%            |

Bine:  
    *Bine color*.—146C.  
    *Stripe present*.—Yes.  
    *Stripe color*.—59B.  
    *Stipule direction*.—Up.  
    *Stipule color*.—143C.  
    *Bine diameter*.—11 mm at base; 10 mm at nine feet; and 9 mm at terminal end of eighteen feet.  
    *Anthocyanin coloration on main bine*.—Medium.

*Average lateral length (on middle third of plant)*.—100 cm to 150 cm.  
*Average laterals length (on upper third of plant)*.—100 cm to 150 cm.  
*Lateral density (on middle third of plant)*.—Medium (two laterals per node).  
Leaf:  
    *Arrangement*.—Opposite.  
    *Shape*.—Palmately Lobed.  
    *Average length of mature leaf*.—21.5 cm.  
    *Average width of mature leaf*.—20.8 cm.  
    *Color of mature leaf upper surface*.—137A.  
    *Color of mature leaf lower surface*.—137B.  
    *Number of lobes*.—2 to 4.  
    *Margin*.—Serrate.  
    *Serrations per inch*.—3 to 5 (typically).  
    *Average petiole length (of mature leaf)*.—100 mm to 110 mm.  
    *Average petiole diameter (of mature leaf)*.—4 mm to 5 mm.  
    *Petiole color at base*.—143C.  
    *Venation*.—Palmate.  
    *Vein color*.—144D.  
Cone:  
    *Avg. length*.—35 mm to 50 mm.  
    *Avg. diameter*.—18 mm.  
    *Bract tip color*.—145D.  
    *Bract base color*.—141A.  
    *Bracteole color*.—149D.  
    *Cone shape*.—Oblong.  
    *Bract shape*.—Ovate.  
    *Bract tip shape*.—Cuspidate.  
    *Bract tip position*.—Recurved-Downward.  
    *Bracteole shape*.—Rotound.  
    *Bracteole length*.—12 mm to 13 mm.  
    *Bracteole width*.—9 mm to 10 mm.  
    *Lupulin glands shape*.—Peduncutlated oblong polyps.  
    *Lupulin glands number per cone*.—Moderate to many.  
    *Lupulin glands color*.—6A.  
The invention claimed is:  
    1. A new and distinct Hop plant as illustrated and described herein.

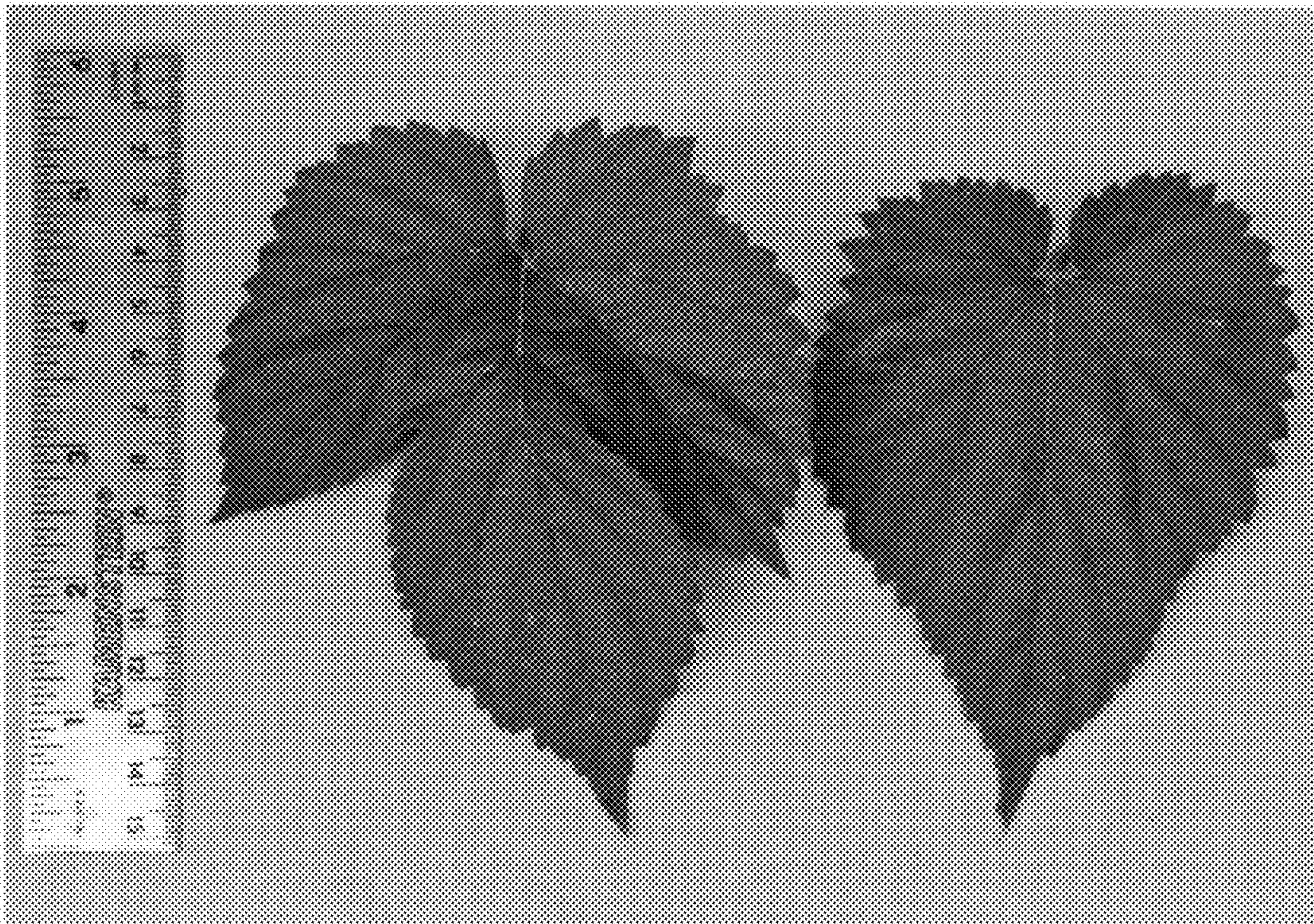
\* \* \* \* \*



***FIG. 1***



***FIG. 2***



***FIG 3***



***FIG 4***



***FIG 5***



***FIG. 6***