



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

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(54) **HOP PLANT NAMED ‘HBC 366’**
(50) Latin Name: *Humulus lupulus*
Varietal Denomination: **HBC 366**
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patent is extended or adjusted under 35
U.S.C. 154(b) by 0 days.
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A01H 5/08 (2006.01)
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USPC Plt./236
See application file for complete search history.

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(57) **ABSTRACT**
A new hop plant named ‘HBC 366’ is disclosed. The cones of
‘HBC 366’ mature in late September, and yield a crop of 2200
to 2700 pounds per acre. ‘HBC 366’ is used for its unique
aromatic quality, high alpha acid content and exceptional
yield.

4 Drawing Sheets

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Genus and species: *Humulus lupulus*.
Variety denomination: HBC 366.

**STATEMENT REGARDING FEDERALLY
SPONSORED RESEARCH OR DEVELOPMENT**

None

BACKGROUND OF THE INVENTION

‘HBC 366’ is a product of a controlled breeding program
carried out by the inventors in the Yakima Valley of Washing-
ton state. ‘HBC 366’ was one of several seedlings resulting
from a cross made in 2001 of female parent ‘YCR-5’ (pat-
ented as “YCR Accession No. 5” U.S. Plant Pat. No. 12,404)
and male parent ‘YCR 136’ (not patented). A single plant of
‘HBC 366’ was selected in 2003, and in 2007 was expanded
to 70 plants, which were planted in the area of Toppenish,
Wash. The plants were observed and evaluated for several
years, and in 2009 were expanded for further observation and
evaluation in the Toppenish, Wash. area. A three acre test plot
of ‘HBC 366’ was established in 2009. Throughout several
generations of asexual propagation, ‘HBC 366’ has been
observed to retain its distinctive characteristics and remain
true to type. HBC 366 is distinguished from other known hop
cultivars by its high total oils, its heavy solid cones with large
amounts of lupulin, and by the unusual yellow color (Yellow
green 154C) of its immature leaves during the spring—a leaf
characteristic similar to the Comet hop variety. HBC 366 has
a distinctive citrus aromatic property.
HBC 366 is distinguishable from its parent plants (YCR-5
and YCR 136). HBC 366 is distinguishable from its male
parent YCR-136 with flowers that develop into mature hop
cones without producing pollen, while flowers of YCR 136
produce pollen without developing into mature hop cones.

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TABLE 1

sets forth some of the distinguishing characteristics of HBC 366 as compared to its female parent YCR-5:		
	HBC 366	YCR-5
Alpha Acids %	14.0% to 17.0%	15.0% to 17.0%
Beta Acids %	4.0% to 5.0%	4.5% to 5.5%
Cohumulone %	35.0% to 38.0%	24.0% to –26.0%
Total oils	2.4 to 2.7 mL/100 g cones	1.0 to 2.0 mL/100 g cones

BRIEF DESCRIPTION OF THE PHOTOGRAPHS

FIG. 1 illustrates whole cones and cross sections of cones
of the ‘HBC 366’ hop plant.
FIG. 2 illustrates the leaves of the ‘HBC 366’ hop plant.
FIG. 3 illustrates the bine and leaves of the ‘HBC 366’ hop
plant.
FIG. 4 illustrates a mature ‘HBC 366’ hop plant grown on
a trellis.
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 observa-
tions described herein, rather than from these illustrations
alone.

DETAILED BOTANICAL DESCRIPTION

The following description is based on observations made
during the 2011 growing season 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.

Species: *Humulus lupulus*.
Ploidy: Diploid.
Use: Brewing.
Disease susceptibility: ‘HBC 366’ is not resistant to hop
downy mildew. ‘HBC 366’ is moderately resistant to pow- 5
dery mildew.
Pest susceptibility: ‘HBC 366’ is not resistant to normal infes-
tations of hop aphid and two-spotted spider mite.
Harvest date: September 12-22 (2011 growing season, Top-
penish, Wash.). 10
Crop yield: 2600 pounds per acre.
Bine:
 Color.—Yellow green 146D.
 Stipule direction.—Up-forked.
 Stipule color.—Yellow green 146D. 15
 Bine diameter.—9.0 mm at base; 8.3 mm at 9 feet; 7.5
 mm at 18 feet.
Leaf:
 Arrangement.—Opposite.
 Shape.—Cordate — Palmate. 20
 Average length of mature leaf.—15.55 cm.
 Average width of mature leaf.—15.3 cm.
 Color of mature leaf upper surface.—Yellow green
 146A-147A.
 Color of mature leaf lower surface.—Yellow green 25
 147B.
 Color of immature leaf upper surface.—Yellow green
 154C.
 Number of lobes.—1-7.
 Margin.—Serrate.
 Serrations per inch.—4-5.
 Average petiole length (mature).—7.5 cm.

Petiole color at base.—Yellow green 146D.
Vein color.—Yellow green 146D.
Cone:
 Average weight.—1030 mg.
 Average length.—3.8 cm.
 Average diameter.—1.8 cm.
 Bract tip color.—Yellow green 144A.
 Bract base color.—Yellow green 149D.
 Bracteole color.—Yellow green 149D.
 Cone shape.—Ovoid.
 Bract shape.—Ovate.
 Bract tip shape.—Cuspidate.
 Bract tip position.—Slightly flared.
 Bracteole shape.—Ovate.
 Pickability.—Good.
 Cone storage.—30% loss of soft resins after 6 month
 storage at room temperature.
Qualitative analysis:
 Alpha acids (as % of cone weight).—14.0% to 17.0%.
 Beta acids (as % of cone weight).—4.0% to 5.0%.
 Cohumulone (as % of alpha acids).—35.0% to 38.0%.
 Myrcene (as % of total oils).—31.0% to 34.0%.
 Humulene (as % of total oils).—18.0% to 20.0%.
 Caryophyllene (as % of total oils).—11.0% to 14%.
 Total oils.—2.4 to 2.7 ml per 100 g cones.
 Storageability.—60% to 65% alpha acids remaining
 after 6 months storage at room temperature.

The invention claimed is:
1. What is claimed is a new and distinct hop plant as shown
and described herein. 30

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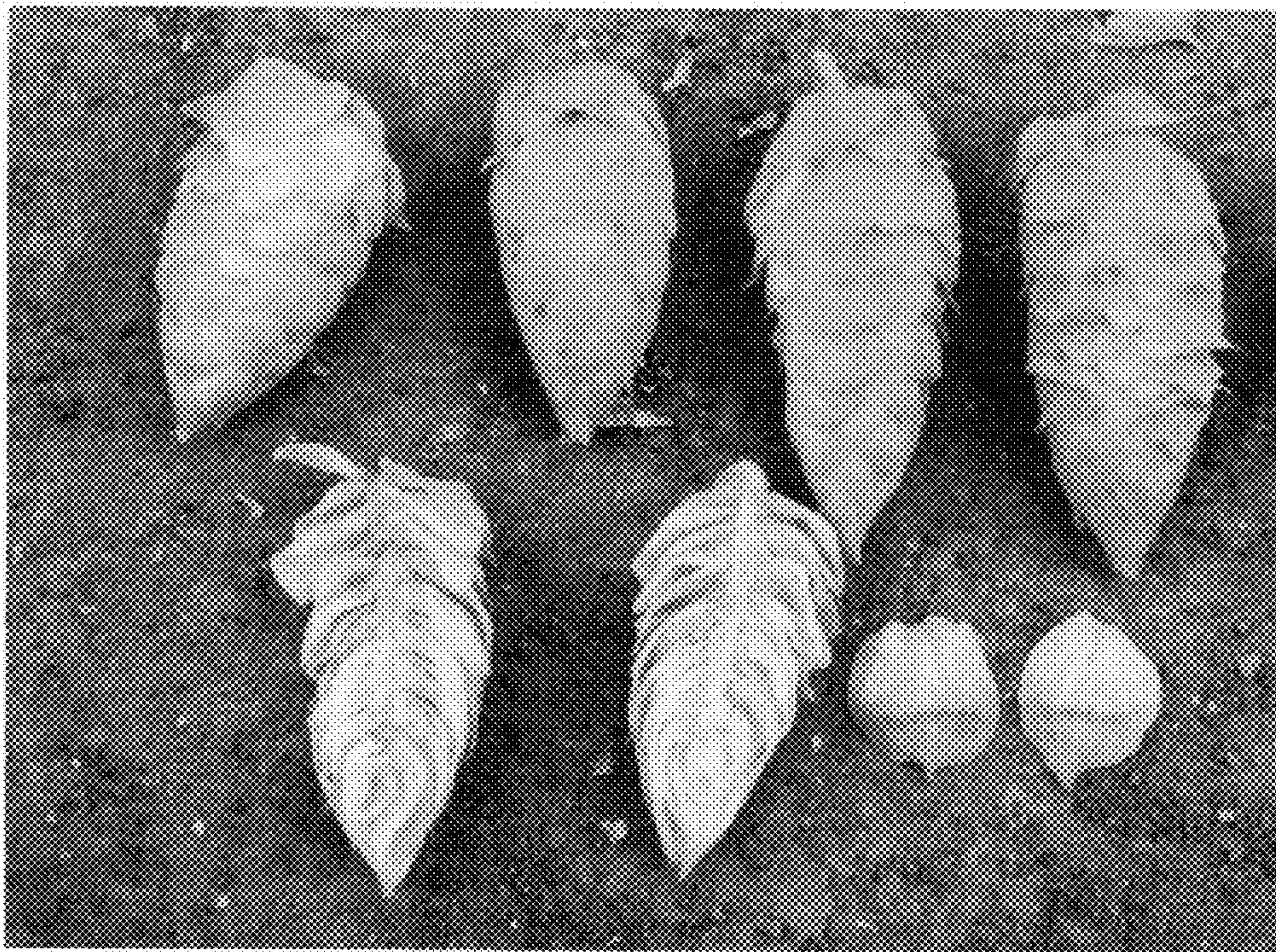


FIG. 1



FIG. 2



FIG. 3



FIG. 4